

De Facto Versus De Jure Power, and Electoral Influence by Non-State  
Armed Organizations: Evidence from Colombia.

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Tesis

# De Facto Versus De Jure Power, and Electoral Influence by Non-State Armed Organizations: Evidence from Colombia\*

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## Abstract

An extensive evidence concludes there exists a strong association between waged violence by non-state armed organizations and election results in the midst of civil wars. One usual assumption in such literature is that the level of violence signals the level of electoral influence a non-state armed organization attains. I argue such assumption falls short. The paper examines the effect of paramilitary groups power on election results in Colombia, defining two categories of power: *de facto* power (violence), and *de jure* power (land tenure or territorial control). Using a *diff-in-diff* strategy, the results show that *de facto* power is crucial to establish *de jure* power, i.e. municipalities affected by paramilitary violence report more land expropriations. The paper provides suggestive evidence pointing out how land expropriations, taken as *de jure* power, influenced elections in order to benefit political parties whose candidates were strongly linked with paramilitary groups. Violence by itself has no effect on election results once I control by *de jure* power. I argue that before any decision about meddling in elections is made, non-state armed organizations have to achieve a genuine control over territory in order to have the possibility of influencing local politics and, in particular, democratic elections. The strategical use of violence is an important instrument in this regard, but not a definitive one.

JEL classification: D72; D74; P48; Q15; Q24.

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# 1 Introduction

The coexistence of democratic elections and civil war is a frequent phenomena, more visible in weak democracies on the path of consolidation (Hyde and Marinov, 2012). In such context, interventions on election results is a strategy of major significance for non-state armed organizations. Matanock and Staniland (2018) frame electoral strategies non-state armed organizations normally follow: i) violent strategies, and ii) non-violent strategies. The first category includes contexts where a non-state armed organization decides to get involved in elections through direct participation either nominating new candidates or supporting parties closely aligned with its preferences. When non-state armed organizations use violence with the purpose of obstructing elections, the most common response is to target candidates whose political preferences go against theirs (Fergusson et al., 2020). Such is the case when non-state armed organizations support an incumbent candidate or when trying to undermine the legitimacy of elections (Condra et al., 2018).

There is an extensive empirical evidence discussing how non-state armed organizations operate during democratic elections (Gutiérrez and Barón, 2005; Acemoglu et al., 2013; Fergusson et al., 2013; Condra et al., 2018; Hafner-Burton et al., 2013, 2016; Taylor et al., 2017). Often, when the evidence points out violence as the mechanism causing election results, it assumes that such violence is directly proportional to the power non-state armed organizations exert over a territory. Kalyvas (2006), however, underlines that in instances of full control non-state armed organizations do not necessarily come to violence as a strategy of coercion. So, when election results respond to varying scales of violence, the relationship is likely channeling an omitted feature. Under this circumstance, I define two categories of power: i) *de facto* power and ii) *de jure* power, following Acemoglu et al. (2005). The first definition reflects power as the short-term rule of a non-state armed organization, generally addressed as the presence of violence, whereas the second definition considers power as the legal control of the territory. I show that both categories of power display different effects on electoral influence managed by non-state armed organizations.

Gaining territorial control in the midst of a civil war is imperative for non-state armed organizations because such dominance can affect contestants' relative probability of winning a confrontation. Therefore, disputes over territory are a significant cause of violence and disruption (Toft, 2014). Control over territory ensures the provision of crucial resources for battle. First, territory can be deemed as an important source of military strategical advantage (Huth, 1996; Carter, 2010; Buhaug and Rod, 2006). Contingent on location, territory can provide security and routes of communication, elements that prevent invasions and attacks from enemies. Territory has an economic value, too. Contested territory usually harbors natural resources armed organizations could use to finance their activity as well as for depredation (Humphreys, 2005; Ross, 2006; Le Billon, 2001; Ross, 2004a,b; Lujala, 2009, 2010). Finally, a suggestion explored with emphasis throughout the paper, territorial control is politically advantageous as long as it is instrumental for civilian support (Siquiera and Sekeris, 2012; Rueda, 2017; Kalyvas, 2006). Moreover, non-state armed organizations are efficient in building up a system of governance through effective territorial control, instead of violence by itself, (Arjona, 2016). In particular, the paper investigates how territorial control by non-state armed organizations determines democratic elections.

I explore how paramilitary power in Colombia, before the peace process and its disarmament in August 2006, shaped political institutions at the local level, particularly, how territorial control enforced election results in benefit of the organization's interests. For this purpose, I describe a

simple model that depicts the interaction of three sectors in a weakly-institutionalized economy: a non-state armed organization, landlords and peasants, and two policy variables: taxes and land endowments. I use the model as an instrument to illustrate the potential mechanisms reflected in the role of land tenure as a driver shaping political institutions. According to the model, land expropriations against peasants is an effective approach in order to hold control over a territory, where the non-state armed organization uses land as a bribe mechanism to guarantee the support from the local elite (landlords). Predictions from the model are tested with a *difference-in-differences* specification as the main empirical strategy.

The results reveal that land tenure effectively shaped institutions, in this case, election results in Colombia. Among leading findings, paramilitary violence before 2007 caused an increase of land expropriations at the municipal level. That is, *de facto* power generates *de jure* power. The relationship is explained by the existence of economic activities traditionally tied to the local elite, as they are palm plantations and cattle ranching. The results are robust against a set of different measures of paramilitary violence and placebo tests. Next, I show that municipalities *de jure* controlled by paramilitary groups reported higher vote shares benefiting political parties strongly linked with them, than municipalities not controlled. Finally, I demonstrate that the role of land expropriations is only local in the sense that it affected outcomes of elections with a clear local boundary cut. I do so by providing a comparison of results from congressional elections, between the House and the Senate. While House elections limit the extent of potential voters to narrow circumscriptions (department level), Senate elections have a national circumscription. The hypothesis is that land expropriations, or *de jure* power, have an impact on House elections but not on Senate elections. The results confirm the hypothesis. In general, leading conclusions support the theory asserting *de jure* power is indeed the real cause of institutional development ([Acemoglu et al., 2005](#)).

Colombia is an appropriate case study to underline the key role control over territory might play within a civil war. The country suffers of high levels of inequality in rural property tenancy and continuous struggles over land tenure among peasants and landlords ([Legrand, 1988](#); [OXFAM International, 2017](#)). Furthermore, land tenure inequality boosted violence and encouraged the creation of peasant guerrillas during the 60's ([López-Urbe and Sanchez, 2017](#); [Centro Nacional de Memoria Histórica, 2016](#)). The explicit control over land has had a decisive participation not just on the origins of the Colombian civil war but in other contexts as well ([Kay, 2007](#)). In Colombia, local politicians colluded with paramilitary groups with the original intent of counteracting the consolidation insurgencies had been having from the 80's to 90's. Over time, these connections turned into political alliances with the aim of gripping full control of public affairs across the country ([Gutiérrez and Barón, 2005](#); [Acemoglu et al., 2013](#); [Fergusson et al., 2013](#)). According to the General Prosecutor's Office, there were 251 judicial proceedings regarding *parapolítica* in which almost half of these investigations involved elected officials ([Lopez and Sevillano, 2008](#)).

Other studies have explored the consequential role land tenure has on the establishment of democratic institutions. [Ziblatt \(2009\)](#) demonstrates, in the case of 19th century Germany, that the social structure assembled under land tenure shaped fairness in elections during this period. [Ziblatt \(2009\)](#) concludes that land inequality made more likely the existence of election fraud by the local elite when democracy was installed in Germany. [Baland and Robinson \(2008\)](#) report similar results with the introduction of secret ballots in Chile in 1958. They show that landlords used their patron-client relationship with their workers in benefit of right-wing parties during elections. Following [Ziblatt \(2009\)](#) and [Baland and Robinson \(2008\)](#), I stand out how land tenure conditioned

voting behavior in Colombia and how the landed elite used its power to capture local institutions. The paper contributes as well as to the literature of how armed organizations capture elections results (Matanock and Staniland, 2018), highlighting prior conditions non-state armed organizations need to set in order to effectively disrupt elections and election results. The *de facto* and *de jure* power (Acemoglu et al., 2005) condition the electoral strategy violent organizations adopt in order to consolidate their military and political leverage in local territories. Electoral results in line with the preference of paramilitary groups in Colombia followed the direction of the *de jure* power. Finally, from a more narrow standpoint, the paper contributes with a particular perspective regarding the political economy of non-state armed organizations in the Colombian civil war, especially, paramilitary groups (Gutiérrez and Barón, 2005; Acemoglu et al., 2013; Fergusson et al., 2013, 2014, 2020; Dube and Naidu, 2015; Tribin, 2015; Steele and Schubiger, 2018).

The paper proceeds as follow. Section 2 presents previous work addressing the relationship between non-state armed organizations and electoral violence. Section 3 describes a basic model and the resulting empirical predictions. Section 4 describes the background of the Colombian civil war. Section 5 mentions the database I use in my estimations and provides a set of descriptive statistics. Section 6 reports the empirical strategy I use in the paper. Section 7 shows the results and robustness checks. Section 8 presents concluding remarks.

## 2 Theories of electoral violence under civil wars siege

According to Matanock (2016), 102 armed organizations have been engaged in violent or peaceful electoral participation between 1970 and 2010. This is equivalent to 14% of all militant or ex-militant groups around the world. The elements that ignite electoral influence and electoral participation by non-state armed organizations are diverse. As any other economic agent, these organizations balance out the benefits and costs of doing so. The perks of engagement in electoral influence are directly connected with organizations' utility function formed by their ideology and the genuine motives of why they are fighting for, as at the same time they form expectations of how well they would perform in elections. At the end, such expectations are the chief cause of non-state armed organizations to be interested in electoral participation. When an armed organization considers that democratic elections provide an opening for reaching its aims, it will directly participates either with own candidates or supporting a party with political sympathies (Matanock and Staniland, 2018). Non-state armed organizations may resort to electoral violence despite the fact of having a high likelihood of success in contested elections. Such organizations may decide to attack opponent political parties and its supporters (Steele and Schubiger, 2018; Fergusson et al., 2020), take political gains from their coercive power over voters (Hidalgo and Lessing, 2014; Acemoglu et al., 2013; Fergusson et al., 2013), and candidates are able to employ violence to mobilize voters (Collier and Vicente, 2012).

Even when non-state armed organizations decide not to participate in elections, they still contemplate the option of delegitimizing the government of a central state. The use of electoral violence demonstrates government's inability to establish a monopoly of violence and casts doubt on the legitimacy of the elections winner (Condra et al., 2018). Such acts of violence in those circumstances may deter electoral fraud, though (Weidmann and Callen, 2012).

Typically, electoral violence has been discussed in relation to patterns of violence before or after elec-

tions have been held, with vast evidence illustrating how such violence has electoral consequences (Montalvo, 2011; Balcells and Torrats-Espinosa, 2018). The logic of violence during pre-election periods is to discourage voters supporting armed organizations' political opponents or to coerce voters. It would allow to gather a social base sufficiently strong in order to win elections. In Colombia, areas dominated by paramilitary groups were particularly keen for politicians involved in media scandals to cast a sufficient number of votes to win congressional elections, given the coercive power of such groups in those areas (Fergusson et al., 2013; Acemoglu et al., 2013). Similarly in Brazil, paramilitary groups exploited weak state capacity with the purpose of extracting political benefits in congressional elections. Favelas under the control of Rio de Janeiro's police-linked militia groups caused the increased of vote shares of police-affiliated candidates. In Kenya, violence in pre-election periods was used to increase voter turn out (Bekoe and Burchard, 2017).

Elections trigger violence as well. Election results can be devised as a signaling mechanism of popular support, thereby, the distribution of it can shape patterns of violence and providing targets for violence. For instance, regions where massive support goes in favor of one organization's interests may be more attractive for indiscriminate attacks by opposing armed organizations, whereas more selective attacks occur in regions of equal electoral distribution (Dunning, 2011). In this regard, Chacón et al. (2011) suggests that regions with equally split popular support among organizations are prone to violence. In this context, violence occurs because elections are competitive. Moreover, local political elites, who have held the monopoly of power and who lost elections, got incentives to engage in violence. When elites lose an election they feel their interests are threatened, and resort to violence in order to offset opponent's access to power. Fergusson et al. (2020) shows that the narrow election of left-wing parties candidates prompts an increase in violence by right-wing non-state armed organizations in Colombia. Post-electoral violence also responds to electoral fraud. Daxecker (2012) argues that the risk of violence after elections increases when international organizations draw attention to unfair electoral processes, and finds evidence of such claiming for African elections between 1997-2009.

The evidence highlights violence as the apparent linking mechanism between civil wars and elections. Doing so, it assumes civilians (or voters) bring no capacity of agency and only follow ruler's demands. Civilians and especially voters, however, maintain certain degree of bargaining power in order to resist non-state organizations. Arjona (2016) points out that the set of governance institutions created by non-state armed organizations in territories within their control are partly determined by decisions adopted by the local population. Likewise, territorial control by the same organizations depends on who civilians are friendly with, in particular those territories highly contested (Kalyvas, 2006). Non-state armed organizations need legitimacy and therefore popular support is strategically valuable. Especially when such groups are not militarily strong. Then, if certain conditions are met, attacking civilians imposes important costs on violent organizations participating in elections (Heger, 2015). Furthermore, in order to minimize such costs non-state armed organizations intentionally reduce the collateral damage of electoral violence (Condra et al., 2018). As a result, it calls into question whether violence is a consistent measure of non-state organizations power and whether it fully matches organizations' political aims.

In principle, the greater is the degree of territorial control the stronger is the coercive power by non-state armed organizations, and the higher is the electoral influence they may exploit. Coercive power, however, does not necessarily relies on the use of violence. As Kalyvas (2006) pointed out theoretically, the relationship between territorial control and violence is non-monotonic. In other

words, more territorial control does not entail more use of violence. Likewise, less territorial control does not engender non-state armed organizations resorting more on violence. Consequently, the use of more violence by a non-state armed organization does not indicate such organization manages more electoral influence.

### 3 Modelling the effects of *de facto* and *de jure* power on electoral influence

I sketch a simple model describing a weakly-institutionalized rural economy characterized by deficient state capacity, judiciary institutions and no control over the monopoly of violence by the state. The economy has three sectors: a non-state armed organization (*AO*), landlords (*L*) and peasants (*P*). The chief goal of the model is to describe the political consequences of territorial control by violent organizations.

Landlords and peasants produce a homogeneous good,  $y$ , which depends on land endowments. The first assumption in which the model relies on is that landlords are more efficient than peasants. Landlords have more resources or, conversely, face lower monetary constraints. Also, landlords represent the elite, thereby, they are well connected at the political level. Such connections allow landlords to be more productive in this rural economy. The utility function of both peasants and landlords depend on production:

$$u_i = f(y_i(l) - c(y_i)) \quad \text{for } i \in \{L, P\} \quad (1)$$

where  $c(y_i)$  is the cost of producing the homogeneous good  $y$  for sector  $i$ . The non-state armed organization controls territory and, upon it, enjoys rents generated through coercion. When in control, the non-state armed organization levies a tax on the production of landlords and peasants,  $\tau$ , and assigns land for production,  $l$ . Coercion imposes a cost,  $\mu$ , on the non-state armed organization, which depends on the size of the production that is going to be seized. Thus, its utility function is represented by:

$$u_{AO} = f(\tau \cdot y(l) - \mu(y_i)) \quad (2)$$

The three sectors may collude with each other in order to maximize their utility. Collusion could trigger a democratic regime (*D*) or a kleptocratic regime (*K*). A democratic regime arises when landlords and peasants are capable to confront the non-state armed organization and so avoid to bear the cost of a tax. This scenario grants no territorial control to the non-state armed organization. On the other hand, a kleptocratic regime arises when the non-state armed organization rules the rural economy and share its power with peasants or landlords. First, having landlords and peasants colluded to confront militarily the non-state armed organization, utility functions are defined as the following:

$$u_i^D = f(y_i(l) - c(y_i) - \mu(y_i)) \quad \text{for } i \in \{L, P\} \quad (3)$$

where peasants and landlords face the same cost of confrontation,  $\mu$ . The non-state armed organization's utility function is defined by:

$$u_{AO}^D = f(-\mu(y_i)) \quad (4)$$

The most preferred scenario for the non-state organization is no confrontation while holding control over the rural economy. It can avoid such position providing a bribe to the sector who faces the higher cost with the imposition of a tax. Given that landlords are the most productive sector, they are the most affected by such costly tax  $\tau$ . Therefore, the non-state organization directs the bribe to landlords. When the non-state armed organization and landlords collude, the utility functions are defined as:

$$u_P^K = f(0) \quad (5)$$

$$u_L^K = f((1 - \tau) \cdot y_L(l) - c(y_L)) \quad (6)$$

$$u_{AO}^K = f(\tau \cdot y_L(l)) \quad (7)$$

The bribe comes in the form of a lower tax  $\tau$  and more land endowments  $l$ . Given the assumption that each unit of land yields more product under the manage of landlords, the non-state armed organization will assign the entire land endowments to landlords. That is the reason why peasants does not produce in a kleptocratic regime, as (5) shows. Comparing the payoffs of both democratic and kleptocratic regimes in terms of utility shows:

$$u_P^D \geq u_P^K \quad (8)$$

$$u_L^D \leq u_L^K \quad (9)$$

$$u_{AO}^D < u_{AO}^K \quad (10)$$

Following (8)-(10), the non-state armed organization and landlords will collude in order to establish a social order that would benefit them both. The results head to the following set of hypotheses:

**Hypothesis 1 (H1):** *In a weakly-institutionalized rural economy, the non-state armed organization expropriates land from peasants and assigned such endowments to landlords. Empirically, areas affected by violence of a non-state armed organization report more land expropriations. In other words, de facto power generates de jure power.*

**Hypothesis 2 (H2):** *Following H1, land expropriations are connected with the existence of a local elite. Empirically, land expropriations are prominent in areas where a local elite is already established.*

Though not directly addressed in the model, land expropriations have electoral consequences. The non-state armed organization and landlords collude in order to determine the political variables that benefit them both the most. In such a case, following the argument presented here, they will elect candidates who accept and obey their rule. Anyhow, the presence of the non-state armed organization is not enough to obtain the support from candidates. As long as the non-state armed organization is capable of providing and assigning land endowments, it will deliver electoral influence. The use of force and, especially, the use of violence are important strategies for the non-state armed organization because it represents *de facto* power. Such violence affects the incentives landlords face when evaluating whether to confront the non-state armed organization. Finally, *de*



*facto* power creates *de jure* settling  $\tau$  and  $l$ . Precisely, *de jure* power is the means by which the non-state armed organization holds electoral influence. Such argument leads to the next hypothesis:

**Hypothesis 3 (H3):** *De jure power, and not de facto power, secures electoral influence to non-state armed organizations. That is, land tenure in combination with violence, and not violence by itself, is what conditions electoral influence.*

Finally, given the local and fixed character of land tenure, *de jure* power has no effects on electoral influence outside the local rural economy. That is,

**Hypothesis 4 (H4):** *The association between land expropriations and electoral influence is stronger in elections with narrow and limited circumscriptions.*

The next sections are devoted to test the hypotheses depicted here using the Colombian civil war as a case study.

## 4 Colombia's civil war

Throughout the 19th and most of the 20th century, the Colombian political conflict engendered generalized violence across the country. Liberals and Conservatives were struggling in an intricate dispute in order to gain control over the state apparatus. The level of confrontation had its most violent moment during a period known as *La Violencia* (1948-1958). It was framed on a clash of anti-liberal and anti-communist discourses led by the Conservative party against movements of agrarian and urban workers represented by the ideas of the *Gaitanismo* (Liberal party). The onset of *La Violencia* was marked by the assassination of Jorge Eliécer Gaitán in April 9, 1948. *La Violencia* was fought between members of both sides represented by their own violent arms, *los chulavitas* and *los pájaros* by Conservatives, and liberal guerrillas and communist self-defences by Liberals. Eventually, delegates from both parties opted to sign an agreement that led to the so-called *Frente Nacional* (1958-1974). Under it, both Conservatives and Liberals shared the political power for several years.

Though the deal's aims were to consolidate peace and reduce sectarian confrontations escalated throughout *La Violencia*, it was clear that the agreement ignored demands from a swath of the population, especially those living in rural areas (Molano, 2016). It was the case with communist self-defences organizations and their strategy to confront the bipartisan establishment. Governments during the *Frente Nacional* considered the dissidents as remnants from *La Violencia* and were determined to confront them with military repression. Such circumstance, aside elites' request for strengthening their regional political enclaves, gave rise to the Revolutionary Armed Forces of Colombia (FARC, in spanish) in 1964.

The FARC is a leftist guerrilla organization from marxism-leninism inspiration. Initially, it was a small group conformed by about 1,000 members. Eventually, it expanded and increased its military force. The FARC got involved in illicit activities like drug-trafficking. Such business allowed the FARC to accumulate enough resources to finance the increase in the number of members (Reyes, 2016). Colombian President Belisario Betancur (1982-1986) decided to start a peace process with the FARC insurgency, by offering the FARC the opportunity to implement a strategy expressed in its own terms as the combination of all forms of fights, an union of an armed uprising with its political consolidation. The negotiation with the FARC found a profound opposition from different social

sectors, especially the military, economic groups and the local elite who considered the agreement an opportunity for the FARC to consolidate its geographical presence as well as a threat to the political and economic power of the local establishment. In the end, the peace process did not succeed.

Negotiation attempts between the government and the FARC unveiled a criminal enterprise between the military, the local elite and drug-traffickers in order to offset guerrillas consolidation. From 1996 to 2005, the Colombian civil war reached its highest manifestation of degradation in the struggle for territorial and political control. The United Self-Defenses of Colombia (AUC, in spanish) were conformed from 9 different paramilitary groups established across Colombia in 1997. The main goal of such organization was the realignment of the country, i.e., "...a model of management of local, regional, and national affairs, ..., paramilitary groups have the objective of razing citizens or organizations that oppose the consolidation of the AUC's power and expansion, therefore, the AUC has to execute multiple criminal acts as they are torture, forced disappearance, forced displacement, etc." ([Centro Nacional de Memoria Histórica, 2012](#)). Indeed, the coercion of power was supported by different segments of the population, mostly cattle ranchers who were victims of the FARC acting ([Centro Nacional de Memoria Histórica, 2012](#)). They paid contributions to paramilitary groups, forcibly or consensually, in order to provide resources for its criminal acts ([Gutiérrez and Barón, 2005](#)).

In contrast to leftist guerrillas, paramilitary groups succeeded in influencing local politics in Colombia. One of such strategies used by Carlos Castaño, paramilitary leader, was the coercion of the state apparatus in municipalities under his control. After the creation of the AUC in 1997 and during the peace negotiations between the Colombian government and FARC insurgency in 2001, the AUC held various meetings in order to build up political and economic alliances with the local elite. The most known political pacts were *pacto de Ralito*, *pacto de Chivolo*, *pacto de Pivijay* and *pacto de Urabá* ([Lopez and Sevillano, 2008](#)). Usually, throughout those meetings paramilitary groups convened to support local political candidates in exchange for political and economic concessions ([Gutiérrez and Barón, 2005](#); [Romero, 2003](#); [Lopez, 2008](#); [Tribin, 2015](#)).

#### 4.1 Land expropriations in Colombia

The economic impact caused by the Colombian civil war in terms of forced displacement and land expropriations is substantial. According to [Garay et al. \(2011\)](#), displaced families had lost assets equivalent to almost 4% of the GDP, and stop receiving incomes that in total represented the 12% of the GDP. Between 1980-2010, 1.088.901 families were forced displaced and 42.5% of them had left or were asked to surrender their rural properties. The total seized or abandoned land rounds 6.6 millions of hectares, which currently represents the 14.3% of Colombia's agricultural land. Most of that land was lost between 1998 and 2008, 5.3 millions of hectares (80% of all the losses), which coincides with the moment when the AUC was operating (1997-2006). Such numbers suggest that the phenomena of land expropriations was not collateral damage but rather a strategy that had major economic effects.

The political aim leading paramilitary groups in Colombia was to rebuild the country ([Centro Nacional de Memoria Histórica, 2012](#)). To achieve such goal, the AUC pushed to recover and consolidate territory lost in previous struggles against the FARC as it neutralizes FARC's social bases settled on those spaces. Eventually, political vindications for land expropriations turned into economic vindications ([Centro Nacional de Memoria Histórica, 2012](#)). Paramilitary groups

consisted in an association among armed actors, cattle ranchers and landlords, drug-traffickers, businessmen, and politicians, each of whom had their own private motivation to participate in land expropriations. Armed actors pressed for territorial control in order to win military advantage, coerce civilians, and drive out the FARC insurgency. Drug-traffickers waged a battle in order to gain territory and increase profits from their illegal economic activity. Cattle ranchers and landlords wanted to return to their rural properties and recover the assets the FARC once stole. Businessmen were searching for new productive projects and new investment opportunities in the rural sector. Finally, the consolidation of paramilitary dominance allowed politicians to coerce control on voters (Steele and Schubiger, 2018). Anecdotal evidence in Colombia suggest that paramilitary groups made strategical use of land expropriations in areas under their control (Centro Nacional de Memoria Histórica, 2013, 2012; Gutiérrez, 2014). The following news extract describes the modus operandi of paramilitary groups in this regard:

*In the municipality of El Guamo (Chocó), since paramilitary groups appeared in 1997, killings of community's social leaders occurred, as well as economic pressures to incite displacement of residents whom then were settled in near municipalities. Then, in 2000, people received phone calls from brokers trying to convince them of selling their rural properties. Those who did not agree to sell, received death threats. What the Colombian justice found was that the AUC allied with businessmen in order to obtain high returns in agroindustrial palm projects. According to authorities, businessmen settled in the region knowing before hand the presence of paramilitary groups and, in accordance, they took part in an association devoted to the acquisition of land and in the adequacy of palm plantations <sup>1</sup>.*

The description is an instance of which the intentions were by paramilitary groups once they settled in a region, and how they acted in accordance to expand its economic and political power. The discussion in the paper takes the argument from Acemoglu et al. (2005). Paramilitary groups took advantage of its *de facto* power, illustrated in the use of violence, to accumulate *de jure* power. Such *de jure* power made paramilitary groups a relevant political actor in Colombia's local elections. *De jure* power, interpreted as *de jure* territorial control molded from systematic land expropriations, triggered the consolidation of the political control held by the AUC, as it allowed to influence election results in Colombia with the help of the local elite.

## 5 Data

### 5.1 Data source and construction

#### 5.1.1 Violence and land expropriation

The source of violence data is a compilation from Universidad del Rosario. The dataset registers conflict-related events at the municipal level in Colombia between 1996-2018, recorded in Noche y Niebla reports from *Centro de Investigación y Educación Popular (CINEP)*. For each armed organization, I obtain the number of attacks from 1996 to 1999. The most prominent non-state armed organizations in Colombia during the sample period were the FARC, ELN (Éjército de Liberación Nacional), and the AUC. Following the literature on the Colombia's civil war, I measure presence of paramilitary violence as a dummy indicator that takes the value of 1 if the number of

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<sup>1</sup>Taken from: <https://verdadabierta.com/palmicultores-se-asociaron-para-delinquir-juez/>. July 21th 2020.

attacks in a municipality exceeds the median of the distribution of AUC attacks between 1996-1999, or 0 otherwise. Next, in some robustness checks, I consider alternative measures of AUC violence. The number of land expropriation cases at the municipal level is reported by *Unidad de Restitución de Tierras*.

### 5.1.2 Elections results

Regarding electoral results at the municipal level, I use electoral data compiled by [Pachón and Sánchez \(2014\)](#) who gather information from *Registraduría Nacional del Estado Civil*. I want to measure the effect of paramilitary violence on election results at the party level. Hence, the outcome of interest is the vote share for political parties with demonstrated links with paramilitary groups. According to judicial investigations, the political parties are: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de La U, Alas Equipo Colombia, and Apertura Liberal.

### 5.1.3 Additional variables

The *Centro de Estudios para el Desarrollo Económico* at Universidad de Los Andes gathers socioeconomic and geographic characteristics for all municipalities in Colombia. From this dataset, I obtain municipality-level characteristics such as tax revenues, fiscal performance, poverty index, population, distance to the departmental capital, area, elevation, and the land Gini coefficient.

I also use information concerning potential economic exploitation of a set of activities such as: palm plantations, potato, cocoa, pineapple, coca, and cattle ranching. All measures, except coca and cattle ranching, are obtained from *Unidad de Planificación Rural Agropecuaria*. The information reports the suitability to harvest those crops in Colombian municipalities. In the case of coca, I use a measure of how much the soil is suitable for planting it, constructed by ([Mejia and Restrepo, 2015](#)). Cattle ranching suitability is measured with information from *Federación Colombiana de Ganaderos*.

## 5.2 Descriptive statistics

Table 1 provides summary statistics for the main variables in a sample of 1,034 municipalities restricted by population size less than 200,000 inhabitants and those with non-missing information on outcome variables. I drop mayor cities from the sample as they are less vulnerable to direct violence of non-state armed organizations, they have more state presence, therefore they are not affected by civil war in a higher scale. In terms of my main outcomes, according to Table 1, more than one third of municipalities in Colombia were subjected to land expropriations by non-state armed organizations (34%) or, on average, had over 3.3 reported land expropriations per 1,000 km<sup>2</sup> per year, from 2000 to 2011. In the sample, 15% of municipalities were witness of the AUC violence between 1996-1999, whereas 21% and 12% of municipalities reported the presence of violent acts of FARC and ELN.

Table 1: Descriptive statistics.

	Mean	Std. Dev.	Min	Max
<i>Dependent variables</i>				
Dummy for any land expropriation (2000-2011)	0.347	0.476	0.000	1.000
Rate of land expropriations (2000-2011)	3.349	14.388	0.000	930.000
<i>Illegal groups violence (1996-1999)</i>				
Dummy for AUC	0.152	0.359	0.000	1.000
Dummy for FARC	0.212	0.409	0.000	1.000
Dummy for ELN	0.124	0.329	0.000	1.000
<i>Municipal characteristics</i>				
Distance to main city (km)	79.742	54.142	0.000	376.118
Municipal area (km <sup>2</sup> )	860.263	3004.999	15.000	6.6e+04
Altitude (km)	1189.091	1170.438	2.000	2.5e+04
Literacy rate in 1993	85.132	8.831	0.378	99.698
Natural logarithm of tax income	3.190	4.828	-6.908	10.747
Population	1.9e+04	2.2e+04	739.001	1.9e+05

**Notes:** Land expropriation measured from 2000 to 2011, with a dummy variable in municipalities with positive number of reports and with the number of reports per 1,000 km<sup>2</sup>. Municipal characteristics measured before 2000. Altitude above sea level of the urban center of each municipality. Distance is linear distance to the state's capital. Municipal official area in km<sup>2</sup>. Total municipal population. Percentage literate population in 1993. Tax income is municipal total amount collected taxes in natural logs.

Table 2 and Table 3 report the average vote shares for parties whose candidates had proven links with paramilitary groups during election periods. In Table 2, vote shares for such parties seem to be conditional to elections circumscriptions, to wit, results for city elections report higher degrees of support for “pro-paramilitary” political parties, in contrast to state elections. Table 3 shows a similar pattern. For example, Senate elections, which have a national circumscription, report that vote shares benefiting parties linked with paramilitary groups are less than 50%. In other words, the wider the election circumscription is, the lower vote shares benefiting ‘pro-paramilitary’ political parties.

Table 2: Descriptive statistics: vote shares in executive and legislative elections (2000-2011)

	Mean	Std. Dev.	Min	Max
Vote share in City Mayor elections	63.595	30.460	0.000	100.000
Vote share in City Council elections	63.237	23.309	0.000	100.000
Vote share in State Government elections	54.240	33.316	0.000	100.000
Vote share in State Congress elections	54.642	22.164	0.000	100.000

**Notes:** Vote share measured for elections in 2000, 2003, 2007 and 2011.

Table 3: Descriptive statistics: vote shares in Congress elections (2002-2010)

	Mean	Std. Dev.	Min	Max
Vote share in House elections	54.570	19.836	0.599	100.000
Vote share in Senate elections	45.366	17.828	0.360	96.357

**Notes:** Vote share measured for elections in 2002, 2006, and 2010.

Table 4 confirms the fact that paramilitary violence is not random and it is more prone to occur in municipalities distant from department’s capital, closer to the sea level, and with a less educated population according to the literacy rate in 1993. Table 4 confirms that Colombia’s civil war follows geographical patterns (Carter et al., 2019).

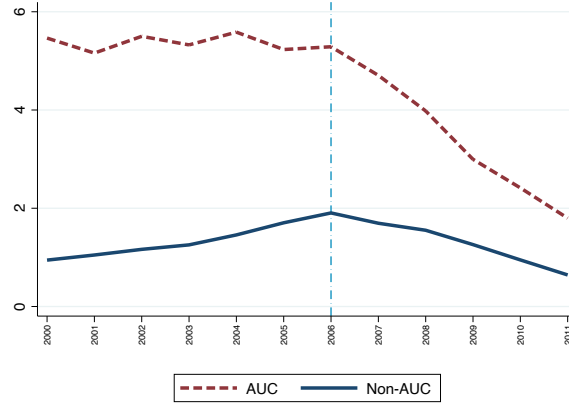
Table 4: Descriptive statistics: AUC vs Non-AUC municipalities

	AUC	Non-AUC	Difference
Distance to main city (km)	91.56 (63.88)	77.63 (52.00)	13.94 [ 0.01]
Municipal area (km <sup>2</sup> )	1078.68 (1948.10)	821.16 (3157.84)	257.52 [ 0.17]
Altitude (km)	763.57 (781.64)	1265.27 (1212.36)	-501.69 [ 0.00]
Literacy rate in 1993	83.21 ( 8.33)	85.48 ( 8.88)	-2.27 [ 0.00]
Natural logarithm of tax income	2.94 ( 5.06)	3.23 ( 4.79)	-0.29 [ 0.50]
Population	20382.34 (20470.22)	19340.21 (22813.68)	1042.13 [ 0.56]

**Notes:** Control variables measured before 2000. Altitude above sea level of the urban center of each municipality. Distance is linear distance to the state’s capital. Municipal area official in km<sup>2</sup>. Total municipal population. Percentage literate population in 1993. Tax income is municipal total amount collected taxes in natural logs.

Figure 1 splits the evolution of land expropriations before and after the AUC disarmament following the peace negotiations with the Colombian government in 2006, by type of municipality according whether it witnessed or not paramilitary violence. It presents a pronounced differential change after 2006 in the evolution of land expropriations among areas subjected to the AUC violence in 1996-1999 relative to those areas that did not. Soon after 2006, areas affected by the AUC violence report a steady decrease in land expropriations. Overall, Figure 1 shows that the pattern of land expropriations was considerably conditioned on violence waged by paramilitary groups.

Figure 1: Evolution of land expropriations in municipalities across Colombia, 2000-2011.



**Notes:** This figure presents the evolution of land expropriation per year distinguishing between municipalities with AUC violence. The figure shows one-year moving averages to smooth the data and adds the description of AUC violence.

## 6 Empirical strategy

In order to size the effect of the AUC violence on land expropriations it is not enough to estimate an OLS specification. The primary reason why this is the case is endorsed by Table 4: violence driven by paramilitary groups is not random. My identification strategy exploits the timing of the AUC disarmament after peace negotiations with the Colombian government and the spatial distribution where the organization operated during 1996-1999. I use a *difference-in-differences* specification since I am interested in how land expropriations changed before and after 2006 in areas remarkably affected by the AUC violence. Formally, using the subindex  $m$  to denote municipalities and  $t$  to denote time, I estimate:

$$y_{mt} = \alpha_m + \delta_t + \beta_1 \times AUC_m \times PreDisarm_t + \sum_{c \in \mathbf{X}_m} (c \times \delta_t) + \epsilon_{mt} \quad (11)$$

where  $y_{mt}$  is my measure of land expropriations,  $AUC_m$  is a dummy for AUC violence and  $PreDisarm_t$  is a dummy that takes the value of 1 for years before 2007.  $\alpha_m$  and  $\delta_t$  are municipal and time fixed effects which control any invariant municipal level heterogeneity and aggregate time shock. Next,  $\mathbf{X}_m$  is a set of municipal characteristics measured in 1999 and interacted with time fixed effects to capture any differential trend associated with the set of characteristics. Finally,  $\epsilon_{mt}$  is an error term allowed to be spatially and timely correlated (Conley, 1999, 2016).

The coefficient of interest is  $\beta_1$ , which shows the differential change in land expropriations in municipalities affected by the AUC violence before its disarmament in 2006, relative to municipalities not affected by the AUC violence after controlling by any differential change explained by municipality fixed effects, aggregate time shocks, and differential trends based on municipal characteristics. The main identification assumption is that, not having occurred the disarmament of the AUC in 2006, the evolution of land expropriations would be the same among both type of municipalities. Such assumption can be partially tested with the following *dynamic difference-in-differences* specification:

$$y_{mt} = \alpha_m + \delta_t + \sum_{j \in T} AUC_m \times \delta_j + \sum (c \times \delta_t) + \epsilon_{mt} \quad (12)$$

where  $T$  includes all years from the sample period. The parameter  $\delta_j$  can be interpreted as the differential land expropriations in municipalities affected by the AUC violence in year  $j$ , relative to the base year.

I test heterogeneous effects associated with mechanisms that help to explain the evolution of land expropriations in municipalities affected by the AUC violence. As indicated by **H2** in Section 3, the presence of the local elite is a potential mechanism that further territorial control by such organization. Even though it is not straightforward to capture the presence of a local elite, I proxy such presence with an array of suitability measures associated to a set of economic activities the local elite traditionally have been tied with. The suitability measures are related with activities such as palm plantations, coca, and cattle ranching. Then, the hypothesis to corroborate is whether municipalities suitable for that sort of economic activities are likely to address higher levels of paramilitary violence and land expropriations. I test this set of mechanisms with a *difference-in-differences* specification like the following:

$$y_{mt} = \alpha_m + \delta_t + \beta_1 \times AUC_m \times PreDisarm_t \times Z_m + \beta_2 \times AUC_m \times PreDisarm_t + \beta_3 \times Z_m \times PreDisarm_t + \sum_{c \in \mathbf{X}_m} (c \times \delta_t) + \epsilon_{mt} \quad (13)$$

where  $Z_m$  is the mechanism in question. The coefficient  $\beta_1$  expresses the differential change in land expropriations in municipalities affected by the AUC violence and suitable for  $Z_m$ .

Finally, in order to show the effect of land expropriations in areas under the control of paramilitary groups on election results at the local level in Colombia I use a similar empirical model like (13). Now,  $Z_m$  represents the level of land expropriations per 1,000 km<sup>2</sup> at municipality  $m$ . Whereas  $\beta_2$  reflects the effect *de facto* power (violence) has on election results, the parameter  $\beta_1$  reflects the differential effect *de jure* power (land tenure) has on election results, additional to the effect estimated through  $\beta_2$ . I use such specification to point out the implication different measures of power (*de facto* versus *de jure*) have on election results. The next section reports the estimated results.

## 7 Results

### 7.1 Main results

I start by explaining the empirical estimates from the main specification (11) in Table 5. The coefficient of interest is the interaction term between the dummy indicator of AUC violence and the dummy indicator for the pre-disarmament year, 2006. I define land expropriation as a dummy that takes the value of 1 if I observe at least one denounce of land expropriation, and as the number of expropriation cases per 1,000 km<sup>2</sup>. In Table 5, columns 1-5 use the first definition whereas columns 6-10 use the second definition of my outcome variable. All specifications include both municipal and time fixed effects.



As it is evident in Table 5, the coefficient of interest is positive and statistically significant. This is true even when I include the set of municipal characteristics interacted with time fixed effects (controls). At face value, one should be cautious when interpreting the point estimates since they could be biased mainly by the influence of an omitted variable or could be correlated with the error term. With the aim to discard such possibility, I include a set of variables that potentially explain both the evolution of land expropriations and paramilitary violence at the local level in Colombia.

First, paramilitary groups are a reactionary movement against the consolidation of leftist guerrillas in Colombia. It is likely that guerrilla presence draws paramilitary violence given that these paramilitary groups were eager to confront guerrilla hegemony. Then, paramilitary groups expropriated land from locals only on strategic military grounds leaded by their struggle against insurgents. Column 3 and column 8 add the number of guerrilla attacks (FARC and ELN) as a control, showing that the statistical significance of the coefficient remains unchanged. Second, paramilitary violence generated the forced displacement of the local population, making the same local population leave behind their properties. Under such scenario, paramilitary groups took advantage of this opportunity to seize the properties. When a measure of forced displacement is included as a control variable, statistical significance remains unchanged again (columns 4 and 9). Finally, the level of crime could be driving the results. Crime in general is correlated with paramilitary violence, so  $\beta_1$  is just capturing the effect of crime on land expropriations. Columns 5 and 10 depict such scenario and the coefficient is still statistically significant.

Table 5: Land expropriations in Colombia, 2000-2011.

	Dummy					Rate				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
AUC $\times$ PreDisarm	0.122*** (0.030)	0.117*** (0.027)	0.106*** (0.026)	0.078*** (0.026)	0.068*** (0.025)	6.583*** (1.642)	6.656*** (1.604)	5.446*** (1.568)	2.032** (0.930)	2.037** (0.923)
Municipality FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Time FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓	✓		✓	✓	✓	✓
Guerrilla attacks			✓	✓	✓			✓	✓	✓
Forced displacement				✓	✓				✓	✓
Crime					✓					✓
Municipalities	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034
Mean. Dep. Var.	0.347	0.347	0.347	0.347	0.347	3.349	3.349	3.349	3.349	3.349
Std. Dev. Dep. Var.	0.476	0.476	0.476	0.476	0.476	14.388	14.388	14.388	14.388	14.388
Observations	12,408	12,408	12,408	12,408	12,408	12,408	12,408	12,408	12,408	12,408
Adjusted R <sup>2</sup>	0.004	0.039	0.042	0.053	0.055	0.009	0.014	0.038	0.159	0.162

**Notes:** Table 5 presents the results from the main specification in (11). I exploit municipal-level variation by year, during 2000-2011. From column 1 to column 5, I use a dummy that takes the value of 1 if there was at least one case of land expropriation as the dependent variable, and for the rest of the columns, I use the number of cases of land expropriation per 1,000 km<sup>2</sup> as the dependent variable. *AUC* is a dummy indicator of municipalities affected by AUC violence between 1996-1999. *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Guerrilla attacks* is number of attacks perpetrated by FARC or ELN per 1,000 population at the municipal level. *Forced displacement* is the number of forced displaced victims per 1,000 population at the municipal level. *Crime* is the number of denounces of property crime other than land expropriations per 1,000 population at the municipal level. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). (11) allows spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

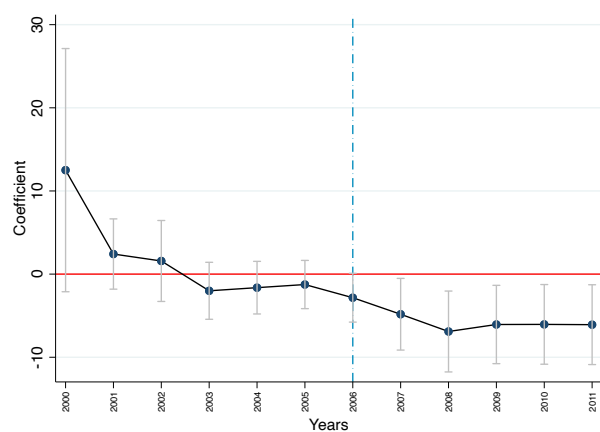
Overall, Table 5 confirms that paramilitary violence is an important cause of land expropriations during 2000-2011 in Colombia. For example, after controlling for municipal fixed effects, aggregated

time shocks, and differential trends in fixed municipal characteristics, municipalities affected by the AUC violence are more likely in 11.7% to report denounces of land expropriation (column 2). The marginal effect is considerable, with an increase of 6.7 expropriation denounces (column 7) per 1,000 km<sup>2</sup>, twofold the average occurrence in Colombia (3.3). All point estimates are statistically significant at the 1% level but columns 9 and 10, that are statistically significant at the 5% level.

Tables 5 reveals that there exists a relationship between *de facto* power of paramilitary groups in Colombia and *de jure* power at the local level. The conclusion supports **H1** in Section 3 as well as anecdotal evidence referring to paramilitary groups' strategy in carrying out an agrarian counter-reform in Colombia (Reyes, 1997, 2016).

Figure 2 shows the dynamic version of the *diff-in-diff* specification represented by (12). Here, I am partially testing if, in absence of peace negotiations with the AUC and its following disarmament, the evolution of land expropriations would be the same in municipalities *de facto* dominated by the AUC and those municipalities that were not. Figure 2 shows statistically significant coefficients after 2006, and confirms the parallel trends assumption. Land expropriations decreases systematically after the AUC disarmament in 2006.

Figure 2: Parallel trends in land expropriations, 2000-2011.



**Notes:** Figure 2 presents the coefficients the dynamic specification in (12). It presents the point estimates and the confidence interval at the 95%.

## 7.2 Mechanisms

To examine the potential mechanisms triggering the consolidation of *de jure* power by paramilitary groups, I estimate heterogeneous effects for a range of municipal characteristics including coca suitability, palm suitability, and cattle ranching suitability. I consider such sort of activities as a proxy measure of the presence of a local elite at the municipal level. Table 6 shows that municipalities suitable for palm plantations and affected by the AUC violence report a larger increase in land expropriations (column 2). Likewise, municipalities with potential for cattle ranching and affected by the AUC violence report a larger increase in land expropriations (column 3). Finally, potential effects driven by coca suitability are tested but they are not statistically significant.

Table 6: Mechanisms for land expropriations (2000-2011).

	(1)	(2)	(3)
	Coca	Palm	Cattle
AUC $\times$ PreDisarm $\times$ Z	-0.553 (0.738)	4.604** (2.125)	10.938** (4.779)
AUC $\times$ PreDisarm	6.667*** (1.624)	4.261*** (1.082)	5.489*** (1.715)
PreDisarm $\times$ Z	1.750** (0.856)	-0.134 (0.577)	-0.064 (1.940)
Municipality FE	✓	✓	✓
Time FE	✓	✓	✓
Controls	✓	✓	✓
Municipalities	1,034	1,034	1,034
Mean. Dep. Var.	3.344	3.349	3.349
Std. Dev. Dep. Var.	14.401	14.388	14.388
Observations	12,376	12,408	12,408
Adjusted R <sup>2</sup>	0.015	0.015	0.014

**Notes:** Table 6 presents the results from the main specification in (13). I exploit municipal-level variation by year, during 2000-2011. I use the number of cases of land expropriation per 1,000 km<sup>2</sup> as the dependent variable. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the measure for heterogeneous effects. Such heterogeneous effect are: i) *Coca* is a dummy indicator for coca suitability, ii) *Palm* is a dummy indicator for palm suitability, and iii) *Cattle* is an interaction term between a dummy indicator for presence of cattle and the share of municipal area in forest and pastures. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Overall, Table 6 tells that palm plantations and cattle ranching boosted, at least partially, land expropriations through paramilitary violence, confirming **H2** in Section 3 which holds that paramilitary *de jure* power was eased by the local elite, and both the local elite and paramilitary groups colluded in order to consolidate political power at the local level. The local elite viewed the AUC presence as an opportunity to leverage their economic and political power.

### 7.3 Local elections

Table 5 and Table 6 point out that a non-state armed organization such as the AUC in Colombia needed a stringent control over territory in order to rule within it and further create an own institutional framework permissive with its economical and political aims. To achieve such goal, the non-state armed organization establish a relationship with the local population. Furthermore, the relationship has to be built with powerful individuals within the community, the local elite. Such coalition exploits the incentives both the non-state armed organization and the local elite face. Rather than being supportive for a democratic regime in a local territory, the local elite endorses the political agenda proposed by the non-state armed organization. The endorsement is stable as long as the local elite received what they want. The local elite needs land to produce. Consequently, the non-state armed organization finds that land endowments are an efficient bribe mechanism in order to keep support and rule in a territory.

Actually, *de facto* power, or violence, is not a sufficient condition to govern a territory. Yet, this is

not to say violence is useless for a non-state armed organization. It is reflecting the fact that there is a latent instrument that, in conjunction with violence, allows a non-state armed organization converts its territorial control into accomplished economic and political goals. I argue that such latent instrument is the *de jure* power. In the Colombian case, paramilitary groups expropriated peasants' rural properties and colluded with the local elite. The forced land expropriations from peasants allowed paramilitary groups to accumulate enough *de jure* power in order to configure and influence elections at the local level.

The chief hypothesis is that election results that benefited paramilitary groups' preferences are more likely to be brought by their *de jure* power rather than *de facto* power. To verify the consistency of the hypothesis, I estimate a *triple difference* model like (13) where the dependent variable is the vote share casted for parties whose candidates were sponsored and had links with paramilitary groups in elections for city mayor, city council, state governor, and state congress. The coefficient of interest is  $\beta_1$  capturing the differential change in vote shares for "pro-paramilitary" parties in municipalities simultaneously affected by the AUC violence and higher levels of land expropriations. While  $\beta_1$  reflects the *de jure* power of paramilitary groups,  $\beta_2$  reflects its *de facto* power. The results are reported in Table 7. All columns control for municipal and time fixed effects as well as municipal characteristics interacted with time fixed effects.

Table 7: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
AUC $\times$ PreDisarm $\times$ Z	0.158*** (0.060)	0.073** (0.034)	-0.065 (0.112)	0.092*** (0.028)
AUC $\times$ PreDisarm	3.377 (2.517)	-1.676 (1.887)	13.526** (5.944)	-2.644 (2.389)
PreDisarm $\times$ Z	-0.123** (0.057)	-0.052* (0.031)	0.071 (0.112)	-0.092*** (0.028)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	3,713	3,713	3,713	3,713
Adjusted R <sup>2</sup>	0.019	0.014	0.076	0.015

**Notes:** Table 7 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

The sample period includes local elections in 2000, 2003, 2007 and 2011. The results in city elections are consistent with the hypothesis. The coefficient of the triple interaction is positive and

statistically significant for mayor and council elections. In column 1, a one standard increase in the number of land expropriations per 1,000 km<sup>2</sup> (equal to 14.388, see Table 1) increases the vote share for “pro-paramilitary” parties in 2.27% ( $0.158 \times 14.388$ ). Similarly, in column 2, a one standard increase in the number of land expropriations per 1,000 km<sup>2</sup> increases the vote share for “pro-paramilitary” parties in 1.05% ( $0.073 \times 14.388$ ). At state congress elections, while the coefficient of interest is positive and statistically significant, it is not the same result as in governor elections. In column 4, a one standard increase in the number of land expropriations per 1,000 km<sup>2</sup> increases the vote share for “pro-paramilitary” parties in 1.32% ( $0.092 \times 14.388$ ).

The coefficient associated with the triple interaction is statistically significant,  $\beta_1$ , in contrast to  $\beta_2$ , pointing out the *de jure* power as a mechanism affecting election results at the local level. Arguably, vote shares for political parties that supported paramilitary groups increased in municipalities dominated by the AUC violence and affected with higher levels of land expropriations. The *de jure* power conditioned election results in line with paramilitary groups preferences and such effect is stronger in elections structured with local circumscriptions (city elections vs. state elections).

## 7.4 National elections

To test **H4**, I compare results between the House and the Senate, in congressional elections in Colombia. Though both chambers enact national laws, representatives from each hall search for votes in distinct electoral circumscriptions. Candidates in the House chamber compete for a limited number of seats assigned to each Department, so the potential electorate they look for is circumscribed to the political boundaries of their respective Department. On the other hand, Senate candidates are able to compete for votes across the country. I exploit such attribute in congressional elections to test **H4**. In Table 8, I test if *de jure* power influences House elections but not Senate elections.

Table 8: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
AUC $\times$ PreDisarm $\times$ Z	0.331*** (0.077)	0.115 (0.078)
AUC $\times$ PreDisarm	-10.106*** (3.907)	-6.349 (3.886)
PreDisarm $\times$ Z	-0.141*** (0.028)	-0.100*** (0.022)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	3,079	3,079
Adjusted R <sup>2</sup>	0.030	0.038

**Notes:** Table 8 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality’s centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 8 confirms **H4**. The sample includes congressional elections in 2002, 2006, and 2010. While there is a statistically significant relation between *de jure* power and vote shares for candidates endorsed by “pro-paramilitary” political parties in House elections, the effect is null in the Senate elections. In column 1, a one standard increase in the number of land expropriations per 1,000 km<sup>2</sup> increases the vote share for “pro-paramilitary” parties in 4.76% ( $0.331 \times 14.388$ ). Overall, the *de jure* power, as I defined it, is the chief determinant of electoral influence in congressional elections in Colombia, in contrast to Acemoglu et al. (2013).

## 7.5 Robustness checks

### 7.5.1 Placebo test: The FARC insurgency

The main prediction of the model is that the presence of a non-state armed organization will drive an increase in land expropriations in a small rural economy. The empirical evidence shows indeed it was the case with paramilitary groups in Colombia. I check whether the effects persist when other non-state armed organization such as the FARC insurgency exerts violence in a territory. I evaluate the argument in Table 9 using the same specification (11) with a sample that includes only municipalities affected by the FARC insurgency violence but not affected by the AUC violence. Table 9 shows that the coefficient associated with the presence of the FARC insurgency is not statistically significant, a result that contrasts with the paramilitary case.

Table 9: Placebo test with the FARC insurgency.

	Dispossession rate	
	(1)	(2)
FARC $\times$ PreDisarm	1.113 (0.681)	-0.488 (0.601)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Conflict measures		✓
Municipalities	620	620
Mean. Dep. Var.	2.059	2.059
Std. Dev. Dep. Var.	8.100	8.100
Observations	7,440	7,440
Adjusted R <sup>2</sup>	0.005	0.123

**Notes:** Table 9 presents the results from the specification in (11). I exploit municipal-level variation by year, during 2000-2011. I use the number of cases of land expropriation per 1,000 km<sup>2</sup> as the dependent variable. *FARC* is a dummy indicator of municipalities affected by FARC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Conflict measures* includes the number of forced displaced people and denounces of stolen properties other than land per 1,000 population at the municipal level. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor.

\* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

### 7.5.2 Alternative measures of paramilitary violence

Another concern about the plausibility of the results is whether their robustness are conditional to the way violence committed by the AUC is defined. I perform the same main estimates with an array of different measures of paramilitary violence in Table 10. Main results of Table 5 remain valid.

Table 10: Land expropriations in Colombia, 2000-2011.

	(1)	(2)	(3)	(4)	(5)	(6)
	Attacks	Attacks>0	10th perc.	25th perc.	75th perc.	Only AUC
AUC $\times$ PreDisarm	0.088*** (0.026)	5.171*** (0.852)	5.341*** (0.914)	6.098*** (1.091)	7.495*** (2.581)	3.793*** (0.854)
Municipality FE	✓	✓	✓	✓	✓	✓
Time FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034	1,034	637
Mean. Dep. Var.	3.349	3.349	3.349	3.349	3.349	1.987
Std. Dev. Dep. Var.	14.388	14.388	14.388	14.388	14.388	7.748
Observations	12,408	12,408	12,408	12,408	12,408	7,644
Adjusted R <sup>2</sup>	0.010	0.012	0.013	0.015	0.011	0.012

**Notes:** Table 10 presents the results from the specification in (11). I exploit municipal-level variation by year, during 2000-2011. I use the number of cases of land expropriation per 1,000 km<sup>2</sup> as the dependent variable. *AUC* is a measure for AUC violence. *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

In column 1, AUC is defined as the number of attacks per 1,000 population each year. Main results are unaffected. The AUC dummy indicator used throughout the paper takes the value of 1 if the number of attacks between 1996-1999 is higher than the median of its empirical distribution. In the same line, I evaluate the results using different percentiles of the distribution to define the dummy indicator. From column 2 to column 5, coefficients remain positive and statistically significant. Finally, the sample is constrained to municipalities affect by the AUC violence and with no violence committed by guerrilla organizations. Results are unchanged. Broadly speaking, the results are sustained regardless how paramilitary violence is defined. All columns report statistically significant coefficients at the 1% level. Check the appendix to see the effects of these measures of paramilitary violence on election results.

### 7.5.3 Land tenure concentration

The local elite is a representative minority of very well connected people inside a community. Paramilitary groups depended on the local elite support as a means to succeed in their mission of monopolizing territorial control. An alternative interpretation of **H1** is that the AUC expropriated land tenure from a large majority of people, small farmers, and gave it to a minority, the local elite. Then, according to **H1**, municipalities affected by the AUC violence should report an increase in land tenure inequality, measured thorough a Gini coefficient.



Table 11: Land Gini (2000-2011).

	Land Gini	
	(1)	(2)
AUC $\times$ PreDisarm	0.006*** (0.002)	0.003* (0.002)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Antioquia	✓	
Municipalities	908	908
Mean. Dep. Var.	0.6861	0.6861
Std. Dev. Dep. Var.	0.1084	0.1084
Observations	12,244	10,804
Adjusted R <sup>2</sup>	0.016	0.014

**Notes:** Table 11 presents the results from the specification in (11). I exploit municipal-level variation by year, during 2000-2011. I use the municipal land Gini coefficient as the dependent variable. *AUC* is a measure for AUC violence. *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality’s centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 11 confirms **H1** using the land Gini coefficient as the dependent variable, both including and excluding municipalities from Antioquia, since Antioquias’s cadastral system is independent from Colombia’s system. In both instances, *de facto* power increases land tenure inequality in Colombia, following the same pattern of land expropriations during 2000-2011.

#### 7.5.4 Other mechanisms

According to **H2**, the local elite benefit from paramilitary control and therefore support paramilitary rule. In order to validate the economic activities mentioned in Table 6, Table 12 studies the effect of economic activities small farmers perform, using suitability measures to harvest crops such as potato, cocoa, and pineapple, at the municipal level. If those plantations report a positive and statistically significant relationship with land expropriations committed by the AUC, then **H2** gets invalid.

Table 12: Suitability for other plantations.

	(1)	(2)	(3)
	Potato	Cocoa	Pineapple
AUC $\times$ PreDisarm $\times$ Z	-2.479 (2.126)	-5.557*** (1.750)	-6.332*** (1.930)
AUC $\times$ PreDisarm	6.824*** (1.705)	6.842*** (1.640)	6.935*** (1.690)
PreDisarm $\times$ Z	-1.020* (0.573)	-0.685 (0.495)	-0.102 (0.493)
Municipality FE	✓	✓	✓
Time FE	✓	✓	✓
Controls	✓	✓	✓
Municipalities	1,034	1,034	1,034
Mean. Dep. Var.	3.349	3.349	3.349
Std. Dev. Dep. Var.	14.388	14.388	14.388
Observations	12,408	12,408	12,408
Adjusted R <sup>2</sup>	0.014	0.014	0.014

**Notes:** Table 12 presents the results from the main specification in (13). I exploit municipal-level variation by year, during 2000-2011. I use the number of cases of land expropriation per 1,000 km<sup>2</sup> as the dependent variable. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the measure for heterogeneous effects. Those heterogeneous effect are: i) *Potato* is a dummy indicator for potato suitability, ii) *Cocoa* is a dummy indicator for cocoa suitability, and iii) *Pineapple* is a dummy indicator for pineapple suitability. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 12 rejects the argument that economic activities small farmers in Colombia perform were an important mechanism for land expropriations in Colombia. Moreover, such activities are negatively associated with land expropriations in municipalities affected by the AUC violence. Conversely, Table 12 supports **H2**.

## 8 Concluding remarks

Among all type of military tactics conducted during a civil war, territorial control is an important one. Territory provides security and routes of communication and, in general, protection from enemies. Also, from an economic standpoint, territory provides resources that could be used in different ways. Territorial control by non-state armed organizations has political implications as well. As argued by Arjona (2016), territorial control from such organizations shapes the institutional arrangement of local communities under their influence. In the paper, I study the repercussions of territorial control in hands of violent organizations on election results in a weak democracy that is still engaged in a civil war. One important implication found in the paper is that the use of violence is a necessary condition to affect election results but not a sufficient one. Based on Acemoglu et al. (2005), I define two categories of power: i) *de facto* power and ii) *de jure* power. *De facto* power represents the violence non-state armed organizations inflict on population. *De jure* power is delineated through a definition that effectively reflects a domain over territory, e.i., land tenure. I corroborate that, in civil wars, election results are shaped via *de jure* power.

I take the Colombian civil war as the case study. First, I sketch a model that draws potential mechanisms under which land tenure (territory) could affect war dynamics and entail unintended consequences on it. The model brings attention toward land tenure as a bribe mechanism in order to monopolize the political control in weakly-institutionalized environments. To test these mechanisms I use a *diff-in-diff* specification. In this empirical testing, paramilitary groups represent the non-state armed organization. The results report that municipalities *de facto* dominated by paramilitary groups have a higher number of land expropriations, that is, *de facto* power generates *de jure* power. The results are mainly driven by the presence of economic activities traditionally performed by the local elite in Colombia: palm plantations and cattle ranching. Such results are robust to different definitions of paramilitary violence. Then, I study the effect of land expropriations, interpreted as *de jure* power, on election results. Municipalities affected simultaneously by paramilitary violence and higher levels of land expropriations report a boost in vote shares benefiting political parties whose candidates were linked to paramilitary groups. *De facto* power has no effects on this outcome. Such result supports the fact that electoral influence is shaped by *de jure* power and not by *de facto* power. Conversely, violence alone has no effects on election results once I control for *de jure* power. An important caveat, however, points out that the relationship between *de jure* power and election results is conditional to elections circumscription. The evidence shows that the association is stronger in city elections rather than state elections, and it is stronger in House representatives elections rather than Senate representatives elections.

Anecdotal evidence, predictions from the model and results from the empirical testing suggest that paramilitary groups had used land expropriations as a war strategy to obtain the support from the local elite, and leveraging on such coalition, the consolidation of their political power. It was not only the use of violence but the effective control over land, e.i, land tenure under expropriation, what affected the dynamics of local politics in Colombia. With the positioning of candidates supporters of their interests, paramilitary groups would be allowed to get a grip over political institutions in Colombia (Lopez, 2008). After years of paramilitary expansion and disarmament, land tenure remains as a catalyst mechanism of violence in Colombia (Prem et al., 2020).

The paper adds up to a previous body of evidence pointing out the importance of land tenure on institutional development (Baland and Robinson, 2008; Ziblatt, 2009). In traditional societies where to be land tenured represents prestige, the local elite have always been identified as landlords and, in their quest to avoid democratic rules, take into account the consequential role of land as a barrier against democratization. Political exclusion associated with lack of access to land tenure is an important cause of civil wars onset as a grievance mechanism. However, besides the grievance premise, the conclusions leaded in the paper emphasize toward land tenure as a greed mechanism for civil war onset. On the other hand, before any decision about meddling in elections is made, non-state armed organizations have to achieve a genuine control over territory in order to have an incidence on local politics and, in particular, election results. The strategical use of violence is an important instrument in this regard, but not a definitive one.

## References

Acemoglu, D., Johnson, S., and Robinson, J. (2005). *Institutions as a Fundamental Cause of Long-Run Growth*, volume 1A, chapter 6, pages 386–464. Elsevier B.V.

- Acemoglu, D., Robinson, J. A., and Santos, R. J. (2013). The Monopoly of Violence: Evidence from Colombia. *Journal of the European Economic Association*, 11(S1):5–44.
- Arjona, A. (2016). *Rebelocracy: Social Order in the Colombian Civil War*. Cambridge: Cambridge University Press.
- Baland, J. and Robinson, J. (2008). Land and Power: Theory and Evidence from Chile. *American Economic Review*, 98(5):1737–1765.
- Balcells, L. and Torrats-Espinosa, G. (2018). Using a natural experiment to estimate the electoral consequences of terrorist attacks. *Proceedings of the National Academy of Sciences*, 115(42):10624–10629.
- Bekoe, D. A. and Burchard, S. M. (2017). The Contradictions of Pre-election Violence: The Effects of Violence on Voter Turnout in Sub-Saharan Africa. *African Studies Review*, 60(2):73–92.
- Buhaug, H. and Rod, J. (2006). Local determinants of African civil war. *Political Geography*, 25(3):315–335.
- Carter, D. (2010). The strategy of territorial conflict. *American Journal of Political Science*, 54(4):969–987.
- Carter, D. B., Shaver, A. C., and Wright, A. L. (2019). Places to hide: Terrain, ethnicity, and civil conflict. *The Journal of Politics*, 81(4):1446–1465.
- Centro Nacional de Memoria Histórica (2012). *Justicia y paz. Tierras y territorios en las versiones de los paramilitares*. Centro Nacional de Memoria Histórica, Bogotá.
- Centro Nacional de Memoria Histórica (2013). *BASTA YA!, Colombia: Memorias de guerra y dignidad*. Centro Nacional de Memoria Histórica, Bogotá.
- Centro Nacional de Memoria Histórica (2016). *Tomas y ataques guerrilleros (1965-2013)*.
- Chacón, M., Robinson, J. A., and Torvik, R. (2011). When is Democracy an Equilibrium? Theory and Evidence from Colombia’s La Violencia. *The Journal of Conflict Resolution*, 55(3):366–396.
- Collier, P. and Vicente, P. C. (2012). Violence, Bribery, and Fraud: The Political Economy of Elections in Sub-Saharan Africa. *Public Choice*, 153(1-2):117–147.
- Condra, L., Long, J., Shaver, A., and Wright, A. (2018). The Logic of Insurgent Electoral Violence. *American Economic Review*, 108(11):3199–3231.
- Conley, T. (1999). GMM estimation with cross sectional dependence. *Journal of Econometrics*, 92:1–45.
- Conley, T. (2016). *Spatial Econometrics*. London: Palgrave Macmillan UK.
- Daxecker, U. E. (2012). The cost of exposing cheating: International election monitoring, fraud, and postelection violence in Africa. *Journal of Peace Research*, 49(4):503–516.
- Dube, O. and Naidu, S. (2015). Bases, Bullets, and Ballots: The Effect of US Military Aid on Political Conflict in Colombia. *Journal of Politics*, 77(1):249–267.

- Dunning, T. (2011). Fighting and voting: Violent conflict and electoral politics. *The Journal of Conflict Resolution*, 55(3):327–339.
- Fergusson, L., Querubin, P., Ruiz, N., and Vargas, J. (2020). The real winner’s curse. *American Journal of Political Science*.
- Fergusson, L., Romero, D., and Vargas, J. (2014). The Environmental Impact of Civil Conflict: The Deforestation Effect of Paramilitary Expansion in Colombia.
- Fergusson, L., Vargas, J., and Vela, M. (2013). Sunlight disinfects? free media in weak democracies. *Documentos CEDE 14 Universidad de los Andes*.
- Garay, L., Barberi, F., Perry, S., Ramírez, C., and Vargas, F. (2011). Cuantificación y Valoración de las Tierras y los Bienes Abandonados o Despojados a la Población Desplazada en Colombia. Technical report.
- Gutiérrez, F. (2014). Propiedad, seguridad y despojo: el caso paramilitar. *Estudios Socio-Jurídicos*, 16(1):43–74.
- Gutiérrez, F. and Barón, M. (2005). Re-stating the state: paramilitary territorial control and political order in Colombia (1978-2004). *Crisis States Research Centre working papers series*, 1(66).
- Hafner-Burton, E., Hyde, S., and Jablonski, R. (2013). When Do Governments Resort to Election Violence. *British Journal of Political Science*, 44:149–179.
- Hafner-Burton, E., Hyde, S., and Jablonski, R. (2016). Surviving Elections: Election Violence, Incumbent Victory and Post-Election Repercussions. *British Journal of Political Science*, 48:459–488.
- Heger, L. L. (2015). Votes and violence: Pursuing terrorism while navigating politics. *Journal of Peace Research*, 52(1):32–45.
- Hidalgo, D. and Lessing, B. (2014). Endogenous state weakness: Paramilitaries and electoral politics in rio de janeiro.
- Humphreys, M. (2005). Natural resources, conflict, and conflict resolution. *Journal of Conflict Resolution*, 49(4):508–537.
- Huth, P. (1996). *Standing Your Ground: Territorial Disputes and International Conflict*. Ann Arbor, MI: University of Michigan Press.
- Hyde, S. and Marinov, N. (2012). Which Elections Can Be Lost? *Political Analysis*, 20:191–210.
- Kalyvas, S. (2006). *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press.
- Kay, C. (2007). Land, Conflict, and Violence in Latin America. *Peace Review*, 19(1):5–14.
- Le Billon, P. (2001). The political ecology of war: natural resources and armed conflicts. *Political Geography*, 20:561–584.
- Legrand, C. (1988). *Colonización y protesta campesina en Colombia (1850 -1950)*. Universidad Nacional de Colombia.

- Lopez, C., editor (2008). *Y refundaron la patria? De como mafiosos y politicos reconfiguraron el Estado colombiano*. Debate.
- Lopez, C. and Sevillano, O. (2008). Balance politico de la parapolitica.
- López-Urbe, M. and Sanchez, F. (2017). On the agrarian origins of civil conflict in Colombia.
- Lujala, P. (2009). Deadly Combat over Natural Resources: Gems, Petroleum, Drugs, and the Severity of Armed Civil Conflict. *Journal of Conflict Resolution*, 53(1):50–71.
- Lujala, P. (2010). The spoils of nature: Armed civil conflict and rebel access to natural resources. *Journal of Peace Research*, 47(1):15–28.
- Matanock, A. and Staniland, P. (2018). How and Why Armed Groups Participate in Elections. *Perspective on Politics*, 16(3):710–727.
- Matanock, A. M. (2016). Using violence, seeking votes: Introducing the Militant Group Electoral Participation (MGEP) dataset. *Journal of Peace Research*, 53(6):845–853.
- Mejia, D. and Restrepo, P. (2015). Bushes and Bullets: Illegal Cocaine Markets and Violence in Colombia.
- Molano, A. (2016). *A lomo de mula: viajes al corazón de las FARC*. Aguilar.
- Montalvo, J. G. (2011). Voting after the bombings: A natural experiment on the effect of terrorist attacks on democratic elections. *The Review of Economics and Statistics*, 93(4):1146–1154.
- OXFAM International (2017). Unearthed: land, power and inequality in Latin America. Technical report, OXFAM International.
- Pachón, M. and Sánchez, F. (2014). Base de datos sobre resultados electorales CEDE 1958-2011. *Documentos CEDE*.
- Prem, M., Rivera, A., Romero, D., and Vargas, J. (2020). Civilian Selective Targeting: The Unintended Consequences of Partial Peace.
- Reyes, A. (1997). La compra de tierras por narcotraficantes en colombia. In *Drogas ilícitas en Colombia*. Bogotá: Ariel.
- Reyes, A. (2016). *Guerreros y Campesinos. Despojo y Restitución de Tierras en Colombia*. Ariel, Ciencias Sociales.
- Romero, M. (2003). *Paramilitares y autodefensas, 1982-2003*. Coporacion Nuevo Arcoiris.
- Ross, M. (2006). A clooser look at oil, diamonds, and civil war. *Annual Review of Political Science*, 9:265–300.
- Ross, M. L. (2004a). How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases. *International Organization*, pages 35–67.
- Ross, M. L. (2004b). What Do We Know About Natural Resources and Civil War? *Journal of Peace Research*, 41(3):337–356.

- Rueda, M. (2017). Popular Support, Violence, and Territorial Control in Civil War. *Journal of Conflict Resolution*, 61(8):1626–1652.
- Siquiera, K. and Sekeris, P. (2012). Politics and Insurgencies. *Economics & Politics*, 24(2):157–181.
- Steele, A. and Schubiger, L. I. (2018). Democracy and civil war: The case of Colombia. *Conflict Management and Peace Science*, 35(6):587–600.
- Taylor, C., Pevehouse, J., and Straus, S. (2017). Perils of pluralism: Electoral violence and incumbency in sub-Saharan Africa. *Journal of Peace Research*, 54(3):397–411.
- Toft, M. (2014). Territory and war. *Journal of Peace Research*, 51(2):185–198.
- Tribin, A. (2015). Paramilitaries and Electoral Support. *Peace Economics, Peace Science and Public Policy*, 21(2):191–216.
- Weidmann, N. B. and Callen, M. (2012). Violence and Election Fraud: Evidence from Afghanistan. *British Journal of Political Science*, 43:53–75.
- Ziblatt, D. (2009). Shaping Democratic Practice and the Causes of Electoral Fraud: The Case of Nineteenth-Century Germany. *American Political Science Review*, 103(1):1–20.

## Appendix

### Number of attacks by paramilitary groups

Table 13: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
$AUC \times PreDisarm \times Z$	0.002 (0.001)	0.001 (0.001)	-0.003 (0.002)	0.001* (0.001)
$AUC \times PreDisarm$	0.089** (0.039)	-0.000 (0.030)	0.215** (0.095)	-0.053* (0.028)
$PreDisarm \times Z$	-0.078 (0.066)	-0.027 (0.037)	0.128 (0.118)	-0.066* (0.034)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	3,713	3,713	3,713	3,713
Adjusted $R^2$	0.020	0.013	0.076	0.015

**Notes:** Table 13 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election.  $AUC$  is the number of attacks per 10,000 population in municipalities affected by AUC violence between (1996-1999).  $PreDisarm$  is dummy variable that takes the value of 1 for years before 2007.  $Z$  is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor.

\* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.



Table 14: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
$AUC \times PreDisarm \times Z$	0.006*** (0.001)	0.002 (0.001)
$AUC \times PreDisarm$	-0.152*** (0.045)	-0.119*** (0.037)
$PreDisarm \times Z$	-0.154*** (0.031)	-0.099*** (0.029)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	3,079	3,079
Adjusted $R^2$	0.030	0.040

**Notes:** Table 14 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is the number of attacks per 10,000 population in municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

## Dummy of attacks by paramilitary groups

Table 15: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
AUC $\times$ PreDisarm $\times$ Z	0.196* (0.108)	0.112** (0.057)	-0.152 (0.140)	0.068 (0.052)
AUC $\times$ PreDisarm	4.005* (2.099)	1.416 (1.900)	10.154* (5.246)	1.240 (2.432)
PreDisarm $\times$ Z	-0.173* (0.105)	-0.100* (0.055)	0.164 (0.147)	-0.083 (0.052)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	3,713	3,713	3,713	3,713
Adjusted R <sup>2</sup>	0.020	0.014	0.075	0.014

**Notes:** Table 15 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 16: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
AUC $\times$ PreDisarm $\times$ Z	0.181*** (0.070)	0.035 (0.028)
AUC $\times$ PreDisarm	-6.661** (3.323)	-4.255 (3.609)
PreDisarm $\times$ Z	-0.193*** (0.038)	-0.102*** (0.027)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	3,079	3,079
Adjusted R <sup>2</sup>	0.026	0.036

**Notes:** Table 16 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

## Dummy of attacks by paramilitary groups (percentile 10th)

Table 17: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
AUC $\times$ PreDisarm $\times$ Z	0.180* (0.103)	0.110** (0.055)	-0.146 (0.137)	0.066 (0.051)
AUC $\times$ PreDisarm	4.558** (2.192)	0.971 (1.843)	11.213** (5.137)	0.847 (2.382)
PreDisarm $\times$ Z	-0.159 (0.100)	-0.097* (0.053)	0.155 (0.144)	-0.081 (0.051)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	3,713	3,713	3,713	3,713
Adjusted R <sup>2</sup>	0.020	0.014	0.076	0.013

**Notes:** Table 17 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 18: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
AUC $\times$ PreDisarm $\times$ Z	0.178*** (0.069)	0.035 (0.027)
AUC $\times$ PreDisarm	-6.501* (3.474)	-4.744 (3.613)
PreDisarm $\times$ Z	-0.190*** (0.038)	-0.100*** (0.027)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	3,079	3,079
Adjusted R <sup>2</sup>	0.026	0.037

**Notes:** Table 18 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

## Dummy of attacks by paramilitary groups (percentile 25th)

Table 19: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
AUC $\times$ PreDisarm $\times$ Z	0.204** (0.083)	0.127*** (0.043)	-0.230* (0.133)	0.057 (0.049)
AUC $\times$ PreDisarm	6.315*** (2.196)	0.586 (1.741)	13.933*** (5.218)	0.167 (2.408)
PreDisarm $\times$ Z	-0.182** (0.080)	-0.111*** (0.042)	0.225 (0.139)	-0.071 (0.048)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	3,713	3,713	3,713	3,713
Adjusted R <sup>2</sup>	0.022	0.014	0.079	0.013

**Notes:** Table 19 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 20: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
$AUC \times PreDisarm \times Z$	0.184*** (0.070)	0.042 (0.027)
$AUC \times PreDisarm$	-7.801** (3.339)	-4.783 (3.644)
$PreDisarm \times Z$	-0.189*** (0.037)	-0.103*** (0.025)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	3,079	3,079
Adjusted $R^2$	0.028	0.037

**Notes:** Table 20 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

## Dummy of attacks by paramilitary groups (percentile 75th)

Table 21: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
AUC $\times$ PreDisarm $\times$ Z	0.072 (0.067)	0.030 (0.037)	-0.109 (0.106)	0.066** (0.031)
AUC $\times$ PreDisarm	-1.285 (3.740)	-5.663** (2.722)	17.773** (7.201)	-5.055* (2.916)
PreDisarm $\times$ Z	-0.038 (0.065)	-0.010 (0.035)	0.103 (0.104)	-0.064** (0.030)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	3,713	3,713	3,713	3,713
Adjusted R <sup>2</sup>	0.018	0.015	0.076	0.016

**Notes:** Table 21 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.



Table 22: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
$AUC \times PreDisarm \times Z$	0.457*** (0.088)	0.129 (0.082)
$AUC \times PreDisarm$	-13.171*** (3.894)	-10.141*** (3.295)
$PreDisarm \times Z$	-0.141*** (0.030)	-0.095*** (0.029)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	3,079	3,079
Adjusted $R^2$	0.032	0.041

**Notes:** Table 22 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

## Municipalities with only AUC presence

Table 23: Local elections in Colombia (2000-2011).

	(1)	(2)	(3)	(4)
	Mayor	Council	Governor	State Congress
AUC $\times$ PreDisarm $\times$ Z	-0.652* (0.395)	-0.010 (0.223)	-0.541* (0.304)	-0.294 (0.182)
AUC $\times$ PreDisarm	26.660*** (6.438)	6.218 (5.252)	16.257** (6.726)	4.532 (4.624)
PreDisarm $\times$ Z	0.090 (0.216)	0.015 (0.133)	0.681*** (0.250)	0.033 (0.082)
Municipality FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓
Municipalities	1,034	1,034	1,034	1,034
Mean. Dep. Var.	63.595	63.237	54.240	54.642
Std. Dev. Dep. Var.	30.460	23.309	33.316	22.164
Observations	1,849	1,849	1,849	1,849
Adjusted R <sup>2</sup>	0.019	0.008	0.141	0.035

**Notes:** Table 23 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for each local election. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.

Table 24: Congressional elections in Colombia (2002-2010).

	(1)	(2)
	House	Senate
AUC $\times$ PreDisarm $\times$ Z	0.451*** (0.167)	0.154 (0.140)
AUC $\times$ PreDisarm	-5.255 (5.463)	-2.101 (5.322)
PreDisarm $\times$ Z	-0.296*** (0.090)	-0.041 (0.048)
Municipality FE	✓	✓
Time FE	✓	✓
Controls	✓	✓
Municipalities	1,034	1,034
Mean. Dep. Var.	54.570	45.366
Std. Dev. Dep. Var.	19.836	17.828
Observations	1,531	1,531
Adjusted R <sup>2</sup>	0.028	0.044

**Notes:** Table 24 presents the results from specification in (13). I exploit municipal-level variation by year, during election periods between 2000-2011. I use as the dependent variable the vote share for the following list of political parties: Partido Cambio Radical, Partido Conservador, Partido Liberal Colombiano, Partido Colombia Democrática, Partido Convergencia Ciudadana, Movimiento Colombia Viva, Partido de la U, Alas Equipo Colombia, and Apertura Liberal. The vote share is measured for House and Senate elections. *AUC* is a dummy indicator of municipalities affected by AUC violence between (1996-1999). *PreDisarm* is dummy variable that takes the value of 1 for years before 2007. *Z* is the number of cases of land expropriation per 1,000 km<sup>2</sup>. Predetermined controls include the logarithm of the population, municipality area, average elevation, distance to the closest major city, literacy rate in 1993, and the logarithm of tax income. All of them are interacted with year fixed effects. Errors in parenthesis control for spatial and first-order time correlation (Conley, 1999, 2016). I allow spatial correlation to extend up to 279 km from each municipality's centroid to ensure that each municipality has at least one neighbor. \* is significant at the 10% level, \*\* is significant at the 5% level, \*\*\* is significant at the 1% level.