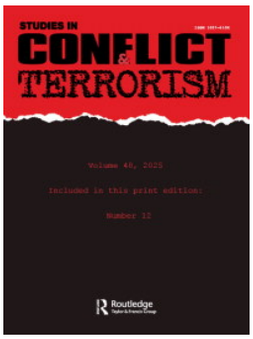

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The Economic Spoiler's Incentive: How Consent-Based Counternarcotics Policy Fueled Violence in Post-Conflict Colombia

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ABSTRACT

This study introduces and analyzes the concept of the "economic spoiler"—armed actors motivated to preserve illicit economies—to explain how developmental peace policies can fail. Focusing on Colombia's post-2016 shift to a consent-based counternarcotics program (PNIS), the paper argues that this 'soft' policy created a strategic incentive for the Revolutionary Armed Forces of Colombia (FARC) dissidents, acting as economic spoilers, to use targeted violence. They sought to sabotage the state's program and coerce farmers back into the coca economy. Quantitative analysis shows homicides increased most severely where the PNIS made civilians vulnerable targets, providing a novel, actor-centric explanation for post-accord violence.

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Introduction

The challenge of violent "spoilers"—actors who use violence to undermine peace for their own gain—is a central problem in post-conflict studies. While the literature extensively analyzes how spoilers react to political power-sharing deals or military realignments, less is understood about how they perceive and strategically exploit development-focused, non-repressive policies. This paper addresses this gap by asking: How do local armed spoilers react when a state pivots from a repressive security strategy to a consent-based developmental one within a contested illicit economy?

This question is examined through the case of Colombia's 2016 peace accord, which initiated a novel shift in counternarcotics policy from forced eradication to the voluntary, farmer-oriented National Substitution Program (PNIS in Spanish). This study argues that the Colombian state, in launching this progressive policy, underestimated the risk posed by high levels of coca cultivation and the strategic calculus of the Revolutionary Armed Forces of Colombia—People's Army (FARC-EP in Spanish)[1] dissident groups. These economic spoilers did not perceive the shift

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The research presented in this paper is currently under review and has not yet been approved or peer-reviewed. The findings and conclusions are preliminary and may be subject to change. Feedback and comments from this presentation will be invaluable for the refinement and improvement of the study. For any use of the content beyond this presentation, including citation, reproduction, or further dissemination, please contact the author directly for permission.

away from repression as a peace dividend, but as a strategic opportunity. The consent-based nature of the PNIS inadvertently created an incentive for spoilers to use targeted violence to sabotage the program, demonstrate the state's inability to protect its partners, and violently coerce farmers back into the illicit economy they sought to control.

The central contribution of this paper is to provide a new, actor-centric explanation for post-accord violence, focusing on the strategic incentives created for spoilers by a de-securitized, developmental policy. It moves beyond a purely structural "governance vacuum" explanation to show how "soft" policies can paradoxically generate "hard" security problems. The argument is tested with three hypotheses: that the FARC's demobilization would lead to violence from competing spoilers (H1); that this violence would be concentrated in high-value coca territories (H2); and that this violence would be most severe in areas where the consent-based PNIS program made civilian participants vulnerable targets for these spoilers (H3).

Using a comparative interrupted time-series (CITS) analysis of municipal-level data from 2012 to 2019, this study finds strong empirical support for this argument. The results demonstrate a stark paradox: the implementation of the consent-based counternarcotics program was associated with a sharp and statistically significant increase in homicides. This violence was most severe in former FARC territories with extensive coca cultivation where the new policy was implemented. These findings provide a sobering, evidence-based account of how even well-intentioned developmental policies can fail when they do not account for the rational, predatory behavior of *economic spoilers*. The analysis contributes a new, actor-centric explanation for post-conflict violence that challenges conventional peacebuilding wisdom and underscores the critical importance of sequencing security and development.

The paper proceeds by outlining the literature review and Colombian context, theoretical framework, providing background on the case, describing the methodology, presenting the results, and offering conclusions.

Literature Review: From Political Spoilers to Economic Incentives

The contemporary literature on spoilers in post-conflict peace processes reflects an increasingly nuanced understanding of these actors and their disruptive potential.[2] Foundational work framed spoilers as actors who use violence because they perceive peace processes as threats to their power and interests.[3] However, recent research further expands the frame of spoiler behavior, emphasizing that spoilers in post-conflict settings operate along a spectrum that includes not only direct violence but also indirect tactics, such as deterring nonviolent resistance through the threat or use of violence.[4] Their findings illustrate that pro-government militias can undermine peace processes by suppressing civil society protests at critical moments in negotiations, a form of spoiler action distinct from the traditional focus on battlefield violence. While this foundational literature is crucial, its focus has predominantly been on how spoilers react to the political and military dimensions of a peace settlement, leaving a gap in understanding how they respond to other forms of state intervention, such as anti-illegal economy policies.

Recent scholarship has increasingly emphasized how intra-party fragmentation and organizational splits drive spoiler behavior, revealing that peace processes often expose

or intensify divisions within former combatant groups rather than simply addressing inter-group conflicts.[5] Their research suggests that strategies to manage spoilers must consider the economic incentives that may be causing fractures within belligerent parties. These internal fractures frequently produce hostile breakaway factions that engage in spoiling activities to preserve wartime advantages and organizational relevance, depending on the context.[6] Critical to understanding this phenomenon is Stedman's[7] distinction between different spoiler motivations: "greedy spoilers" operate through rational cost-benefit calculations rather than non-negotiable ideological commitments, continuing conflict only when it proves more profitable than peace. This dynamic is especially clear in areas with profitable illegal economies.[8] The continuation of a profitable war economy leads to a situation where postwar violence can be as frequent as, or even exceed, wartime levels.

A dominant approach to explaining post-conflict violence focuses on the persistence of economic incentives rooted in "war economies"—systems organized to support conflict through alternate funding sources like extortion, oil, diamonds, or drug trafficking.[9] In internal conflicts, these war economies involve illicit or informal sectors designed to generate profit for armed actors through coercion and violence.[10] Crucially, these economic systems do not vanish when a peace accord is signed. Instead, they create a path-dependent cycle where violence continues, fueled by the same profit motives that sustained the war, raising the likelihood of conflict recurrence. This persistence is exacerbated by low state capacity, where weak institutions fail to regulate violence or control illicit resource flows after the formal conflict ends.[11]

The continuation of a profitable war economy leads to a situation where postwar violence can be as frequent as, or even exceed, wartime levels.[12] This situation presents a fundamental question: Why do armed factions within a larger demobilizing group choose to reject a negotiated peace settlement, opting instead to continue violence? The answer frequently lies in intra-group fragmentation, which gives rise to a specific category of actor: the economic spoiler. These actors are breakaway factions or rival groups whose primary aim is not to challenge the overarching political arrangement but rather to violently seize the illicit economy abandoned by the demobilized faction. Understanding the strategic behavior of these economic spoilers, as well as their responses to state policies, is therefore crucial for explaining the dynamics of post-conflict violence.

Recent scholarship and peacebuilding practice reveal a complex and evolving approach to the question of how peace agreements reconcile illicit economies with the imperative of post-conflict stability. Across contexts—Afghanistan, Colombia, Myanmar, Libya, West Africa, and others—peace agreements face a recurring challenge: illicit economies, such as drug trafficking, illegal mining, and smuggling, offer powerful incentives for armed actors to both resist peace and undermine long-term reconstruction.[13] How peace processes engage with these economies fundamentally shapes the durability and character of the peace that follows.

Comparative studies of post-conflict peacebuilding in various regions reveal the widespread recurrence of these economic and security issues. For example, in Afghanistan, the post-Taliban period saw a swift increase in opium cultivation, as Taliban factions, warlords, and emerging criminal groups competed for control while the central government launched several anti-narcotics efforts. Mansfield[14] describes how development

initiatives promoting "alternative livelihoods"—aimed at helping poppy farmers switch to legal crops—were consistently sabotaged by spoilers using threats and violence against civilians and government agents. These spoilers consistently and effectively used their power, including violence and intimidation, to ensure that such challenges failed. Similar to Colombia, the fragmentation of insurgent groups enabled local commanders to appropriate drug profits, and policy shocks—such as attempts to enforce poppy eradication—produced adaptive spoiling behavior that shifted over time.[15] Studies from Myanmar likewise demonstrate how ceasefires with ethnic armed organizations left illicit resource economies (including opium and jade) largely intact, creating incentives for ethnic militias to sabotage reforms that threatened their lucrative enterprises and how the strategic decisions, legitimacy, and sustainability of Myanmar's armed groups were shaped less by external state-rebel conflict and more by the ongoing, contested processes of forging authority and recognition within their own ranks and communities.[16] In both contexts, violence surges when "soft" development interventions place local civilians on the front lines of contestation over control of war economies.

Recent peacebuilding experience in West Africa, and the Balkans further affirms that illicit economies are a core threat to stable transitions. In Mali, peace interventions have been persistently undermined by traffickers and armed actors whose profits from smuggling and narcotics fund new rounds of violence.[17] UNODC[18] warns that, in both Mali and Libya, attempts to foster rural development and stabilization are strategically countered by spoilers seeking to preserve their hold over transnational criminal economies. In Bosnia and Kosovo, postwar efforts to curb trafficking and organized crime were hampered by local spoilers in fragmented security networks. International efforts to build peace often backfired or were co-opted, as illicit actors not only spoil peace but also become new economic elites profiting from state structures and international aid.[19] These cross-national investigations reveal a persistent trend: when peacebuilding and development efforts challenge the interests of economic spoilers, these actors adapt their local strategies. They employ violence primarily to protect their economic revenues, intimidate reform advocates, and undermine the legitimacy and security of post-conflict governance.

The literature thus reveals a clear and persistent pattern: the presence of lucrative illicit economies fosters the emergence of economic spoilers who use violence to protect their revenue streams from peacebuilding and development initiatives. These spoilers are primarily motivated not by objectives to overthrow political regimes but by the desire to sustain the illegal markets from which they derive economic benefits. Scholars have documented this dynamic across diverse contexts and have shown how it leads to the fragmentation of armed groups and the co-optation of post-conflict governance. This perspective challenges monolithic interpretations of rebel organizations by demonstrating how competition for illicit resources can lead to various forms of economically driven spoilage behaviors that persist even following the implementation of formal peace agreements.

The Colombian Nexus: War Economies and Intra-Group Fragmentation

The country's protracted conflict saw armed groups, particularly the FARC, strategically incorporate the coca trade as a primary financing mechanism for their political

insurgency in addition to extortion and kidnapping. This transformed the organization into a complex hybrid, operating *simultaneously* as a politically motivated insurgency with clear strategic aims and as a powerful narco-economic enterprise financed by the coca trade.[20] The nexus between armed actors and the drug trade intensified dramatically in the 1990s. Following the successful "kingpin strategy" that led to the death of Pablo Escobar in 1993, the resulting power vacuum was aggressively filled by competing armed groups, most notably the FARC and the paramilitary federation, the United Self-Defense Forces of Colombia (AUC).[21] This reconfiguration transformed these groups into powerful players in the international drug market, meeting a rising demand in the United States and elsewhere.[22] As noted by scholars like Gutiérrez Sanín,[23] this financial autonomy fundamentally altered the conflict, turning political insurgents and counter-insurgents into powerful narco-economic enterprises and making a military solution for any side nearly impossible.

In response to the escalating power of these armed groups, the Colombian state, with substantial U.S. support, adopted a heavily securitized counter-narcotics strategy. The most significant iteration of this approach was Plan Colombia, launched in 2000.[24] Presented as a strategy to address both drug trafficking and insurgency, its main objectives were to cut illicit drug production by half within six years and to reassert government control over disputed territories.[25] Forced eradication was implemented through two main tactics: aerial fumigation with the herbicide glyphosate[26] and manual eradication by security forces on the ground.[27] Despite the massive investment, this strategy failed to achieve its primary objectives. The forced eradication approach generated significant social conflict, was costly and ineffective in achieving sustained reductions, and did little to weaken the FARC's territorial and economic control.[28] By the time peace negotiations began in 2012, the FARC remained the most significant armed actor in coca-growing regions. Data used in this study indicates the FARC was present in 135 of the 183 municipalities with coca crops, including all 46 municipalities with over 700 hectares of coca cultivation by 2016.

The 2016 Peace Accord with the FARC was a direct attempt to break this nexus. However, it also triggered another phenomenon well-documented in spoiler literature: intra-party fragmentation.[29] Peace processes often expose or intensify divisions within armed groups, leading to the emergence of hostile breakaway factions. When a dominant group demobilizes, it creates a power vacuum, leading to breakaway "economic spoilers" who may not challenge the political settlement but seek to violently control the illicit economies their former comrades abandoned. This is precisely what occurred in Colombia, where FARC dissident factions rejected the accords to maintain control over lucrative drug trafficking and illegal mining routes.[30] This dynamic is consistent with scholarly work on post-conflict criminal governance, which finds that the withdrawal of a dominant armed actor often leads to violent competition among remaining and new criminal entrepreneurs.[31]

The landscape of FARC dissidence that emerged after the 2016 Final Accord was not monolithic; rather, it evolved in distinct phases. The initial wave of dissidence consisted of a fragmented collection of mid-level commanders and combatants from specific fronts who rejected the peace process from the outset. These groups were primarily motivated by the desire to maintain control over lucrative illicit economies, including coca cultivation, illegal mining, and trafficking routes.[32] A critical early warning from Colombia's

Defensoría del Pueblo[33] identified at least 15 distinct dissident structures operating by 2018,[34] noting that their violence was concentrated in strategic corridors for the drug trade. These first-mover factions, which later consolidated under the banner of the Estado Mayor Central (EMC) led by figures like 'Gentil Duarte' and 'Iván Mordisco', represent the archetypal economic spoiler. Their decision to remain armed was rooted less in ideological opposition to the peace accord and more in the rational calculation that demobilization would mean forfeiting substantial criminal revenue.[35]

This initial, economically driven fragmentation was later complicated by the emergence of a second, more politically oriented dissident faction known as Segunda Marquetalia. Formed in 2019 by high-profile former FARC peace negotiators, including 'Iván Márquez' and 'Jesús Santrich', this group's rearmament was justified as a response to the Colombian state's perceived failure to implement the accords and guarantee the safety of demobilized combatants.[36] While also deeply involved in illicit economies, Segunda Marquetalia's public discourse centered on a political critique of the peace process, distinguishing it from the EMC's more overtly criminal enterprise model.[37] This staggered timeline is crucial: the violence analyzed in the immediate post-accord years was overwhelmingly driven by the early EMC-aligned factions, whose strategic opposition to counternarcotics programs, such as the PNIS, provides a clear case of economic spoilers exploiting a "soft" state policy to protect their financial interests.

Understanding the behavior of these economic spoilers requires analyzing their strategic response to state policy. For decades, Colombia's approach was the "hard", securitized strategy of Plan Colombia, which focused on forced eradication of coca and military confrontation. The 2016 Accord marked a paradigmatic shift. Point 4 introduced the National Program for the Integral Substitution of Illicit Crops (PNIS), a "soft", developmental policy designed to provide farmers with monetary incentives to voluntarily eradicate coca.[38]

A year earlier, the Colombian military enacted a new military doctrine that commenced its development in 2011, referred to as the "Doctrina Damasco",[39] a substantial doctrinal realignment, transitioning from an extended counterinsurgency paradigm to a conventional military framework consonant with NATO standards and influenced by the military doctrines of the United States and Chile.[40] This transformation involved a strategic shift from traditional irregular combat capabilities toward an ostensibly tailored conventional warfare.[41] However, this doctrine was ultimately overturned in November 2020,[42] reflecting ongoing debates over the appropriate security paradigm.

Although the literature on these policy shifts remains limited, the changes introduced by "Doctrina Damasco" significantly altered security strategies. This reorientation has had far-reaching implications for state control and security provision, especially in rural and contested areas.[43] The resultant security vacuum in territories formerly controlled by guerrilla groups, coupled with the PNIS initiatives, engendered complex dynamics that were exploited by economic spoilers seeking to reestablish dominance over illicit economic activities.

This policy shift creates a critical, under-examined strategic puzzle. The literature demonstrates that peace processes addressing illicit economies face immense challenges,[44] and that the implementation of the PNIS in Colombia has been met with violence. Specifically, studies have powerfully linked the assassination of social leaders

to their support for crop substitution programs, particularly in areas with a fragmented criminal landscape.[45] However, while this link is established, the strategic rationale of the perpetrators remains undertheorized and has not been systematically tested across different forms of violence. A critical gap exists in understanding how economic spoilers *perceive* and *react* to a state's shift from repressive to consent-based counter-narcotics policies. This study fills this gap by proposing and testing a new, actor-centric explanation for post-accord violence.

While the literature provides crucial insights into how spoilers sabotage development initiatives in contexts like Afghanistan[46] and navigate the political economies of cease-fires in Myanmar,[47] less is known about how dissident factions strategically adapt their use of violence when a state makes a formal, nationwide shift from a decades-long coercive counter-narcotics strategy to a consent-based one. This study addresses this specific gap by examining the case of post-conflict Colombia through the lens of the PNIS implementation. It contends that this "soft" policy, designed to win over coca-growing communities, was perceived by FARC dissident spoilers not as a peace dividend, but as a strategic threat to their economic and local dominance. Consequently, these factions employed targeted violence against program beneficiaries, social leaders, and rival spoilers as a rational strategy to undermine the policy, inhibit civilian cooperation, and reassert their control over the illicit economy through violence. This study thus offers an actor-centered explanation for the continued prevalence of violence following a landmark peace agreement.

Theoretical Mechanism and Study Design

The theoretical mechanism posited in this study is rooted in the interaction between organizational fragmentation,[48] and shifting state policy. Following the demobilization of the FARC and the disintegration of its conventional command hierarchy, local commanders—who now function as dissidents—are endowed with both autonomy and comprehensive local knowledge, facilitating the exploitation of drug trafficking markets with entrepreneurial independence.

However, this authority is neither costless nor uncontested. The state's adoption of a voluntary eradication strategy (PNIS) fundamentally altered the local political economy. By incentivizing farmers to transition to legal crops and requiring their overt participation, this policy increased the exposure of community leaders and participants, making them visible targets for armed actors committed to maintaining drug trafficking revenues. Local spoilers thus face a strategic calculation: while they seek to dominate or control the coca market in the absence of hierarchical or state constraints, they are also motivated to use targeted violence against those perceived as threatening their economic interests, particularly local leaders advocating for or participating in substitution programs and other economic spoilers seeking local control.

In this context, violence becomes a rational tool for spoilers to deter civilian collaboration with state initiatives, reinforce illicit market dominance, and send signals to both rivals and the wider community. The mechanism, therefore, hinges on the intersection of (1) organizational decentralization and local knowledge, and (2) the policy-induced visibility and vulnerability of community actors in coca-producing areas. This actor-centric framework elucidates why and where the implementation of

ostensibly "soft" policies like PNIS can engender significant security repercussions. Following the demobilization of a hegemonic actor such as FARC, territories that were previously considered "pacified" have emerged as hotspots for criminal rivalry among dissident factions and other illegal actors. Developmental initiatives like PNIS influence local incentives—particularly in high-value coca-producing regions—by diminishing coercive counter-narcotics measures, empowering local civilians, and signaling a retreat of the state from militarized governance structures.

Hypotheses

Drawing on the actor-centric mechanism described above, this study examines three interrelated hypotheses that explain the patterns and intensity of post-accord violence in Colombia following the demobilization of FARC. Each hypothesis is guided by the logic that local commanders, endowed with intimate knowledge and newfound autonomy, strategically respond to state policy shifts and local economic incentives.

Hypothesis 1(H1): *Post-accord violence will increase in areas with a prior FARC, especially by FARC dissidents (Spoiler Emergence).*

A core premise of the spoiler theory is that the departure of a hegemonic actor opens the door for new actors to emerge. If violence were to decrease uniformly after the FARC's exit, the spoiler argument would be less convincing. This first hypothesis tests the initial step of the causal chain: that the post-accord period is marked not by peace, but by a new conflict dynamic driven by the emergence of specific spoiler groups, such as FARC dissidents. This hypothesis helps us to establish that these new actors are the main cause of the observed rise in violence.

Hypothesis 2(H2): *This violence will be concentrated in high-value coca-producing territories (Economic Motivation).*

The argument posits that these are *economic* spoilers, motivated by the revenues of controlling the coca trade. If this is true, their violence should not be random; it should be strategic. This hypothesis predicts that spoilers will concentrate their coercive efforts where the economic prize is greatest. By testing for a strong, positive relationship between the level of coca cultivation and spoiler-driven violence, we can validate the claim that the conflict is fundamentally about the control of the illicit economy, rather than political or ideological goals.

Hypothesis 3(H3): *Violence will be most severe in areas where the consent-based PNIS program increases civilian exposure to spoilers (Vulnerable Targets).*

This is the central hypothesis that tests the paper's novel contribution. It argues that the "soft" developmental policy had a counterproductive effect by changing the strategic environment. By requesting farmers to voluntarily oppose economic spoilers' interest without sufficient state security, the PNIS policy unintentionally singled out and isolated cooperative civilians, thereby rendering them vulnerable targets spoilers. Spoilers can use violence against PNIS participants to achieve two goals: eliminate threats to their coca supply chain and consolidate their emerging local power. This hypothesis, therefore, predicts that the highest rates of violence will be found at the

intersection of the policy's implementation and the spoiler's presence in high-value territories.

These hypotheses collectively evaluate the central argument that violence in post-accord Colombia should not be viewed solely as a consequence of institutional fragility. Instead, it is posited to arise from calculated, strategic behaviors by economic spoilers who leverage local market dynamics and changes in state policy. The most severe impacts are concentrated in regions abundant in coca cultivation and actively participating in the PNIS program.

Empirical Strategy: Comparative Interrupted Time Series (CITS)

This study examines how the combined efforts of the Colombian peace accords and reforms to counter-narcotics policies, particularly PNIS, have affected local homicide rates, focusing on variations over time and across regions. Since randomization isn't practical for assessing causality, a Comparative Interrupted Time-Series (CITS) approach is used.

The CITS design extends the traditional interrupted time series methodology, which is frequently employed to evaluate policy interventions where randomization is not feasible and effects evolve over time. This design involves comparing the treatment group to either a control group or a counterfactual scenario. It has been extensively utilized across various sectors, such as health and education,[49] and has been recommended for causal hypothesis testing due to its generally high internal and external validity.[50]

In this study, the CITS model centers the timeline so that the ratification of the peace accords by the Colombian Congress (December 1, 2016) is month zero. Monthly homicide rates per municipality (per 100,000 inhabitants) are the dependent variable. The model estimates the difference in level (discontinuity) and slope (trend) of homicide rates before and after this policy change, separately for treatment and control groups, enabling assessment of both immediate and evolving effects.

Model 1 illustrates the measurement of these effects. The coefficient $\dagger_1$ captures treatment (t) *Discontinuity*, which is for the indicator variable equal to one when the homicide rate is after the peace, estimates the difference in the *Pre-trend* and *Post-trend* intercepts at the moment of the peace accords, $\dagger_4$ captures control (c) *Discontinuity*. This estimated difference is interpreted as the treatment effect of the peace accords, which is the key coefficient of interest in this model. The coefficient $\dagger_2$ captures the monthly homicide rate time trend prior to the peace accords *(Pre-trend)* in the treatment group and $\dagger_5$ in the control group. The coefficient β_3 represents the change in the *Post-trend* monthly homicide rate time trend for the treatment group, which can be used to determine if any homicide rate change following the peace accords dissipates or grows over the post-peace accords period, it also includes this same re-centered trend interacted with an indicator variable equal to one when the monthly homicide rate was at or past the peace accords month cutoff, and $\dagger_6$ is the equivalent coefficient for the control group. The model will measure the effects of the treatment group on monthly homicide rates from the beginning of the peace negotiation in September 2012 to December 2019, before the beginning of the COVID-19 restrictions. Summarizing, the dataset is centered

on zero (0) in the month when the peace accords were ratified, December 2016. The *post-trend* evaluates the effects in the months after the peace accords and before the COVID-19 lockdowns, and the *pre-trend* evaluates the prior tendency to the peace accords. Finally, the *discontinuity* examines the initial effect of the peace accords.

Model 1 (CITS)

$$y_m = \alpha + \beta_1 1\left(Time_{mt} \geq Peace\right) + \beta_2\left(Time_{mt} - Peace\right) + \beta_3 1\left(\left(Time_{mt} \geq Peace\right)\right.$$
$$\left.*\left(Time_{mt} - Peace\right) * Treat_{mt} + \beta_4 1\left(Time_{mc} \geq Peace\right) + \beta_5\left(Time_{mc} - Peace\right)\right.$$
$$\left.+ \beta_6 1\left(\left(Time_{mc} \geq Peace\right) * \left(Time_{mc} - Peace\right) * Control_{mc} + \varepsilon_t\right.\right.$$

Dependent Variable: Homicide Rate

The dependent variable is the monthly municipal homicide rate per 100,000 inhabitants. This was constructed using two administrative data sources. Homicide data comes from the administrative records of the National Police of Colombia.[51] Population data comes from the National Department of Statistics of Colombia.[52] While administrative data may have underreporting, the National Police of Colombia (PONAL) dataset provides the most comprehensive national coverage on a monthly basis. The alternative, from the National Institute of Legal Medicine and Forensic Sciences (FORENSIS),[53] is limited primarily to major cities and thus unsuitable for this nationwide study. Despite potential underreporting in these administrative datasets, the actual number of homicides is likely higher. The PONAL dataset uniquely provides monthly, individualized records for most homicides across the territory, whereas the FORENSIS dataset primarily covers major cities. A significant limitation of both datasets is the absence of information on the perpetrator, as responsibility for this lies with the General Attorney's Office following judicial procedures, which often take years and frequently remain unknown.

A significant limitation of the datasets used for this analysis is the frequent absence of reliable information regarding the perpetrators of homicides. This raises a valid concern that any individual violent event could be attributed to a range of armed actors or might not be directly related to the political-economic dynamics under study. This study mitigates this limitation not by attempting to attribute individual events, but through the inferential leverage provided by its quasi-experimental research design. The theory of economic spoilers generates a highly specific and falsifiable prediction: violence should increase disproportionately in municipalities characterized by the precise intersection of a former FARC presence, a significant coca economy, and the implementation of the PNIS program. The CITS model is designed to test this exact proposition by comparing the trajectory of violence in these municipalities against various control groups. Therefore, while the perpetrator of any single homicide remains ambiguous, the finding that violence systematically and significantly increased *only* in the specific contexts predicted by the theory provides strong evidence for the proposed causal mechanism. The strength of the inference comes from the specific pattern of violence, not the attribution of any single act.

Independent Variables and Treatment Definitions

To test this paper's hypotheses, several treatment groups are constructed based on the presence of spoilers and the implementation of the PNIS policy.

- *H1 (Spoiler Emergence):* The presence of spoiler groups—FARC Dissidents, and competing armed actors such as ELN, and AGC—is determined using two key sources. Pre-accord presence is established using the 2015 electoral risk maps from the NGO Misión de Observación Electoral (MOE).[54] The emergence of FARC dissidents post-accord is identified using the February 2018 early warning reports from the Colombian Ombudsman's Office (Defensoría del Pueblo),[55] which is the official body responsible for monitoring these threats.
- *H2 (Economic Motivation):* The level of coca cultivation is used to identify high-value territories. The data is from the annual municipal dataset jointly produced by the Colombian Ministry of Justice and the United Nations Office on Drugs and Crime (UNODC).[56] This is the sole official source for municipal-level coca quantification. As the data is annual, coca cultivation is treated as a time-invariant characteristic of the municipality for the purpose of defining treatment groups.
- *H3 (Vulnerable Targets):* The key policy variable is participation in the PNIS. Municipalities were coded as "treatment" (PNIS = 1) or "control" (PNIS = 0) based on official reports detailing the program's implementation.[57] The analysis then interacts this variable with the spoiler presence and coca cultivation variables to test the hypothesis that violence was most severe where the consent-based policy was implemented in territories contested by economic spoilers.

To assess the robustness of the CITS findings, I conducted supplementary ordinary least squares (OLS) regressions incorporating municipal-level control variables. These robustness checks included territorial indicators (presence of Indigenous and Afro-descendant communities), economic performance measures (Gross Value Added per capita), and social development metrics (school enrollment and dropout rates). Table 1 provides descriptive statistics of the variables used in this study. This analytical approach allows for the validation of the principal relationships identified in the CITS specification while controlling for potential confounding factors that may influence the treatment-outcome relationship at the municipal level.

This study makes a clear conceptual distinction between the FARC dissident factions—the primary "economic spoilers"—and other armed groups like the ELN and AGC. As the ELN and AGC were not parties to the 2016 Accord, they are not considered "spoilers" in the classic sense and are not counted as such in this analysis. To isolate the specific impact of economic spoilers, the statistical models are designed to test for the effects of these competing actors separately. Specifically, the models include distinct variables for the presence of the ELN, the AGC, and for contexts where two or more armed actors (including dissidents, ELN, or AGC) were reported. This design allows the analysis to adjudicate between the study's central claim—that violence was driven by economic spoilers reacting to the PNIS program—and an alternative

Table 1. Descriptive statistics.

Variable	Observations	Mean	SD	Min	Max
Year	96712	2015.81	2.12	2012	2019
Homicide rate	96712	2.136	5.40	0	277.3925
Coca corps in squared hectares (ha)	96712	108	737.64	0	23147.95
PNIS	17880	0.25	0.43	0	1
FARC-EP	54950	0.19	0.4	0	1
FARC-EP Dissidents	41762	0.05	0.22	0	1
ELN	96712	0.05	0.22	0	1
AGC	96712	0.042	0.20	0	1
Indigenous territories	96712	0.234	0.423	0	1
Black territories	96712	0.049	0.216	0	1
Rate of enrollment K-11	95784	84.41	20.39	0	279.03
Percentage of 1–5 school dropout	95224	2.580	1.86	0	15.19
Percentage of 6–11 school dropout	95324	4.421	2.888	0	30.23
Population	96712	42694.250	252684.600	632	7592871
Rural population	96712	10497.770	12790.520	187	169403
Urban population	96712	32194.980	250134.200	0	7566185

explanation attributing it to generalized competition among all armed groups for control of these same territories.

Results

This section presents the empirical findings from the statistical models employed to evaluate the study's three hypotheses. The findings from both the comparative interrupted time series (CITS) and regression analyses substantiate the argument that post-accord violence in Colombia was primarily influenced by the strategic responses of economic spoilers, reacting to the implementation of the PNIS program within high-value coca-producing regions.

Before presenting these findings, it is crucial to clarify the temporal evolution of the FARC dissident groups, as this dynamic is central to the study's research design and the interpretation of its results. The post-accord landscape witnessed two distinct waves of dissidence: a first wave of fronts that rejected the 2016 accords to maintain control of illicit economies (later consolidating into the EMC), and a second, more politically motivated faction, Segunda Marquetalia, which did not form until late 2019. This staggered timeline is key. The study's timeframe, which analyzes the immediate post-accord years, means the violence captured is overwhelmingly driven by the first type of dissident group. Therefore, the analysis that follows is a focused test of the theory of *economic spoilers*, clarifying the scope of the claim while acknowledging the complex, evolving reality of the dissident landscape.

H1: Spoiler Emergence and the Rise of Post-Accord Violence

The first hypothesis (H1) posits that the FARC's demobilization did not lead to a uniform peace but rather to the emergence of new spoiler groups, particularly FARC dissidents, who drove an increase in violence in former FARC territories. The CITS

Table 2. Comparative interrupted time series for homicide rate in municipalities with and without FARC-EP and coca crops.

	Coca crops	No coca crops
Pre-trend NO FARC-EP presence	−0.007*	0.0006
	(0.003)	(0.002)
Pre-trend FARC-EP presence	−0.09***	−0.027***
	(0.003)	(0.003)
Discontinuity NO FARC-EP presence	0.294	−0.248***
	(0.247)	(0.068)
Discontinuity FARC-EP presence	2.70***	0.322
	(0.201)	(0.167)
Post-trend NO FARC-EP presence	0.023	−0.0004
	(0.013)	(0.003)
Post-trend FARC-EP presence	0.125***	0.046***
	(0.01)	(0.008)
Constant	1.782***	1.782***
	(0.047)	(0.047)
Observations	98736	98736

Standard errors in parentheses calculated with bootstrapping and 1000 repetitions. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

model presented in Table 2 provides initial support for this claim. In municipalities with a prior FARC presence and coca crops, there is a large, positive, and statistically significant immediate increase in the homicide rate following the peace accord (Discontinuity = 2.70, $p < 0.001$). In contrast, this effect is not significant in former FARC territories without coca crops. This initial finding confirms that the post-accord period was marked by a sharp escalation of violence concentrated in the most valuable illicit territories abandoned by the FARC.

Table 3 disaggregates this violence by the specific types of illegal actors active during the post-accord period. The findings are significant and provide direct evidence supporting Hypothesis 1. The most substantial and statistically significant increase in homicides coincides with the emergence of FARC Dissidents (Discontinuity = 3.781, $p < 0.001$ in the overall model). This effect notably surpasses that observed for any other individual armed groups. These results are further illustrated in Figure 1, which shows a pronounced structural break in violent activity and the proliferation of successor groups subsequent to FARC demobilization. Before the accord, homicide rates in areas controlled by the FARC were declining. Immediately after, the rate in territories controlled by their dissident successors sharply increases and continues on an upward trend, diverging from all other actor types. This provides strong evidence that FARC dissidents emerged as the primary drivers of the new wave of post-accord violence.

H2: The Economic Motivation for Violence

The second hypothesis (H2) posits that spoiler-driven violence is economically motivated and should therefore be concentrated in municipalities characterized by high-value coca production. The controlled interrupted time-series analysis presented in Table 2 provides a direct empirical test of this proposition by disaggregating former FARC territories based on the presence or absence of significant coca economies. The results reveal a pronounced differential effect: the post-accord discontinuity in violence manifests exclusively in municipalities with coca cultivation (Discontinuity = 2.70, $p < 0.001$),

Table 3. Comparative interrupted time series for municipal homicide monthly rate by illegal actor and PNIS implementation.

	NPIS	No NPIS	All municipalities
Pre-trend No illegal actors	−0.059***	0.002	−0.005***
	(0.013)	(0.005)	(0.001)
Pre-trend FARC-EP Dissidents	−0.077***	−0.04***	−0.109***
	(0.011)	(0.012)	(0.004)
Pre-trend ELN	−0.035*	−0.049***	−0.063***
	(0.02)	(0.009)	(0.005)
Pre-trend AGC	−0.021	−0.047***	−0.061***
	(0.016)	(0.01)	(0.005)
Pre-trend two or more illegal actors	−0.071***	−0.077***	−0.104***
	(0.016)	(0.008)	(0.004)
Discontinuity No illegal actors	−0.319	−0.238	−0.125*
	(0.738)	(0.283)	(0.07)
Discontinuity FARC-EP Dissidents	2.837***	1.913**	3.781***
	(0.580)	(0.834)	(0.298)
Discontinuity ELN	1.396	1.932***	2.330***
	(1.209)	(0.548)	(0.341)
Discontinuity AGC	−0.023	1.934***	1.707***
	(0.934)	(0.652)	(0.348)
Discontinuity two or more illegal actors	3.602***	2.517***	3.628***
	(0.934)	(0.482)	(0.298)
Post-trend No illegal actors	0.078**	0.011	0.008***
	(0.034)	(0.012)	(0.003)
Post-trend FARC-EP Dissidents	0.07***	0.155***	0.133***
	(0.026)	(0.039)	(0.014)
Post-trend ELN	0.237***	0.071***	0.117***
	(0.058)	(0.026)	(0.016)
Post-trend AGC	0.09**	0.037	0.094***
	(0.044)	(0.031)	(0.017)
Post-trend two or more illegal actors	0.074*	0.124***	0.139***
	(0.044)	(0.023)	(0.014)
Constant	3.258***	2.679***	1.803***
	(0.294)	(0.145)	(0.045)
Observations	4,576	13,304	96,712
R-squared	0.034	0.034	0.033

Standard errors in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

accompanied by a sustained upward trend (Post-trend = 0.125 additional violent events per month, $p < 0.001$). In contrast, former FARC territories without coca production exhibit a negligible and not statistically significant discontinuity (Discontinuity = 0.322, $p > 0.05$), providing strong empirical support for the economic motivation underlying post-accord violence patterns.

These findings provide compelling evidence that the presence of high-value illicit economies constituted a necessary condition for the immediate spike in post-accord spoiler violence. Figure 2 illustrates this relationship graphically, demonstrating that municipalities with extensive coca cultivation (exceeding 901 hectares) experienced a pronounced discontinuity in homicide rates immediately following the peace agreement, while municipalities with minimal or no coca production maintained relatively stable violence trajectories. Notably, while the initial jump in violence was dramatic and concentrated in high-coca areas, the post-accord trends across all coca crop municipality types appear roughly parallel, suggesting that the primary effect was an immediate structural break rather than sustained divergent growth in violence rates. This pattern offers robust empirical support for the hypothesis that post-accord conflict dynamics

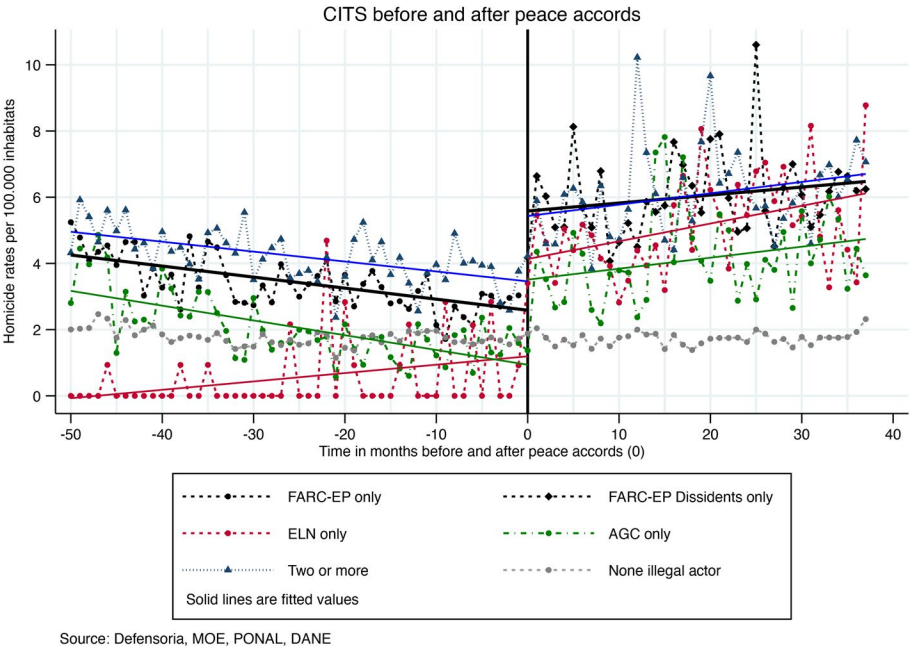

Figure 1. Homicide rate trends by illegal group before and after the 2016 peace accord.

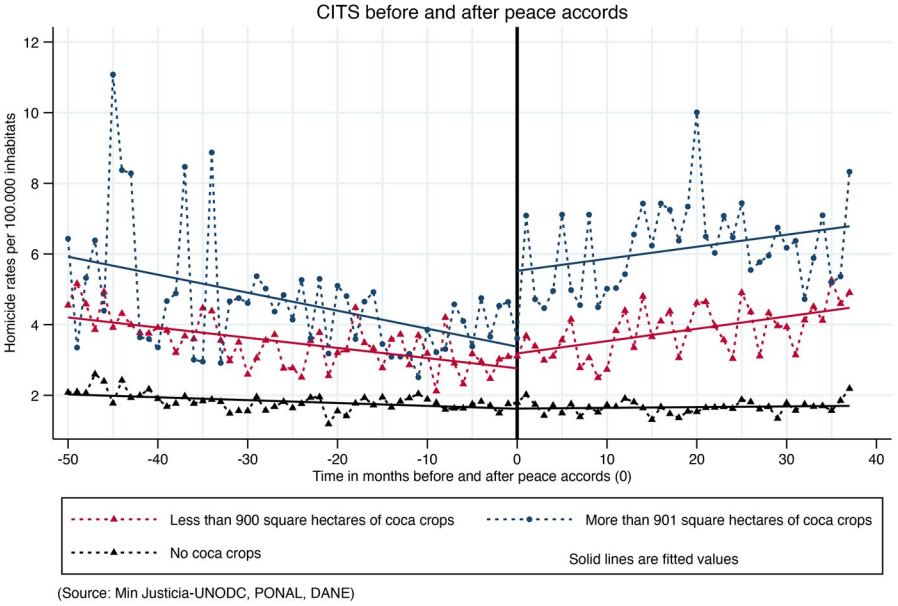

Figure 2. Homicide rate trends by level of coca crops before and after the 2016 peace accord.

were fundamentally driven by competition for immediate control over lucrative illicit markets, with the violence spike representing a rapid territorial reorganization rather than a gradually escalating conflict process.

H3: The PNIS Program as a Catalyst for Violence

The central hypothesis (H3) posits that the consent-based PNIS program, by making civilians vulnerable, acted as a catalyst for violence by economic spoilers. The results provide compelling evidence for this mechanism. Table 3 offers a direct test by comparing municipalities where the PNIS was implemented to those where it was not. In areas where FARC Dissidents were present, the immediate increase in the homicide rate was substantially larger in PNIS municipalities (Discontinuity = 2.837, $p < 0.001$) than in non-PNIS municipalities (Discontinuity = 1.913, $p < 0.01$). The effect is even more pronounced in contested areas with two or more illegal actors, where the discontinuity in PNIS areas (3.602, $p < 0.001$) is significantly greater than in non-PNIS areas (2.517, $p < 0.001$). This suggests that the implementation of the "soft" policy created hotspots of violence.

Figure 3 provides a nuanced visualization of this relationship by comparing homicide rates in former FARC municipalities based on subsequent PNIS implementation. The graph reveals a striking pattern: while both groups maintain similar trends in the early pre-accord period, municipalities designated for future PNIS implementation experience a dramatic decline in homicide rates in the immediate pre-accord months, suggesting anticipatory effects of the peace process in areas slated for government intervention. However, despite this pre-accord decline, PNIS-designated municipalities exhibit a pronounced discontinuity immediately following the peace accord, with homicide rates jumping substantially higher than in non-PNIS municipalities. Notably, the post-accord trends appear roughly parallel between both groups, indicating that while PNIS municipalities experienced a larger initial shock in violence, the subsequent trajectory of violence remained similar across both contexts. This pattern suggests that even areas

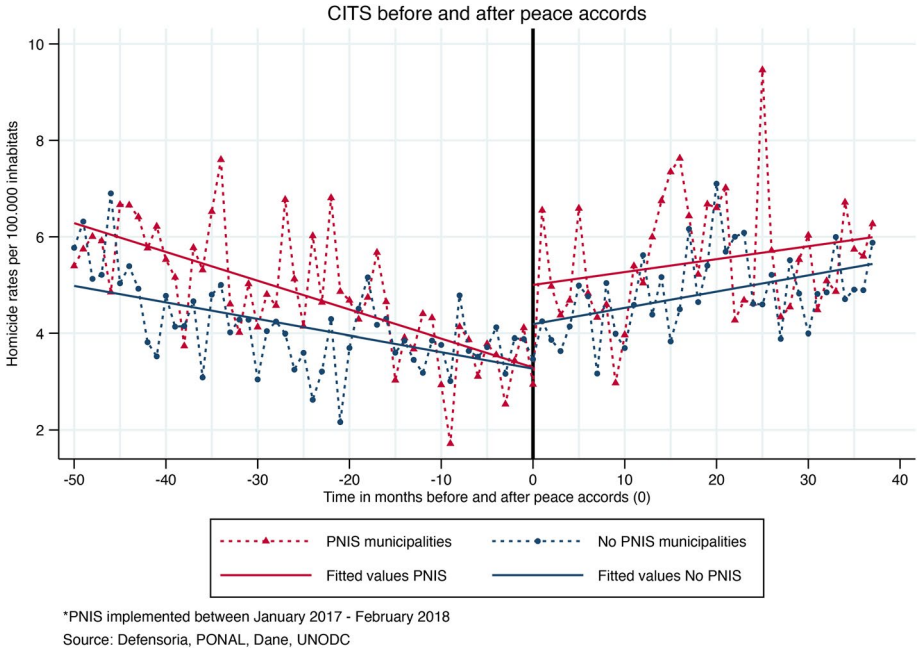

Figure 3. Effect of PNIS implementation on homicide rates in former FARC municipalities.

prioritized for government coca substitution programs were not immune to the immediate territorial competition that characterized the post-accord period.

The empirical analysis provides robust support for all three hypotheses examined in this study. First, the demobilization of the FARC generated conditions conducive to the emergence of dissident spoiler groups, as evidenced by the pronounced discontinuity in violence patterns immediately following the peace accord (H1). Second, this spoiler-driven violence exhibited clear geographical concentration in municipalities with extensive coca cultivation, demonstrating the economic motivations underlying post-accord conflict dynamics (H2). Most critically, the implementation of the consent-based PNIS substitution program appears to have produced unintended consequences, inadvertently transforming program participants and their communities into vulnerable targets for economic spoilers seeking to preserve control over lucrative illicit revenue streams (H3). These findings illuminate the complex interplay between peace implementation mechanisms and economic spoiler behavior, suggesting that well-intentioned state interventions in illicit economies may paradoxically intensify rather than mitigate post-conflict violence in the absence of adequate security provision.

Robustness Check

To assess the robustness of the controlled interrupted time-series (CITS) findings, I conducted supplementary ordinary least squares (OLS) regressions incorporating a comprehensive battery of municipal-level control variables. These robustness checks included territorial governance indicators (presence of Indigenous and Afro-descendant communities), economic performance measures (Gross Value Added per capita), and social development metrics (school enrollment and dropout rates). This analytical approach allows for the validation of the principal relationships identified in the CITS specification while controlling for potential confounding factors that may influence the treatment-outcome relationship at the municipal level.

The results, presented in Tables 4 and 5, provide strong confirmation of the study's main conclusions across different model specifications and time periods. First, to test whether the observed relationships were driven by underlying municipal characteristics, OLS regression models were estimated for both the pre-accord (September 2012 – November 2016) and post-accord periods (December 2016 – December 2019), controlling for a comprehensive range of covariates (Table 4). The results demonstrate remarkable consistency with the CITS findings. Even after accounting for numerous control variables, coca crops per capita emerge as the single most powerful predictor of post-accord homicide rates across all specifications, with coefficients ranging from $\beta = 18.04$ ($p < 0.001$) in coca-only municipalities to $\beta = 19.58$ ($p < 0.001$) in the full sample. Similarly, previous FARC presence remains a strong and significant predictor of violence ($\beta = 1.6$, $p < 0.001$ in coca-only municipalities; $\beta = 1.027$, $p < 0.001$ in the full sample), confirming that these relationships are not spurious correlations driven by omitted variables.

The control variable analysis in Table 4 reveals additional insights into the determinants of post-accord violence. Violence was significantly higher in municipalities with legally recognized Afro-descendant territories ($\beta = 0.606$, $p < 0.001$), while areas with higher percentages of rural population exhibited lower violence rates ($\beta = -0.008$,

Table 4. Regression results for municipal monthly homicide per 100.000 inhabitants.

	Municipal homicide rate per 100.000 inhabitants during the peace negotiations (september 2012 – november 2016)			Municipal homicide rate per 100.000 inhabitants after peace negotiations (december 2016 - December 2019)		
	All	Coca crops only	FARC-EP only	All	Coca crops only	Previous FARC-EP only
Coca corps per capita	6.401***	4.421**	3.735*	19.58***	18.04***	19.16***
	(1.488)	(1.986)	(1.907)	(1.076)	(1.637)	(1.545)
Municipalities with coca crops (No coca crops as reference)	0.923***	–	2.052***	0.971***	–	1.6***
	(0.082)		(0.148)	(0.092)		(0.182)
Municipalities with FARC-EP	1.155***	2.527***		1.027***	1.939***	–
	(0.078)	(0.174)		(0.085)	(0.230)	
Municipalities with indigenous territories	−0.0235	−0.447***	−0.180	−0.108	−0.246	−0.110
	(0.064)	(0.155)	(0.133)	(0.067)	(0.195)	(0.158)
Municipalities with black territories	0.263**	−0.160	−0.459***	0.606***	0.0261	0.019
	(0.121)	(0.184)	(0.176)	(0.126)	(0.230)	(0.2)
Percentage of rural population	−0.014***	−0.015***	−0.011***	−0.008***	0.007	−0.0001
	(0.001)	(0.004)	(0.003)	(0.001)	(0.005)	(0.003)
Municipal GVA per capita in million pesos	0.003	0.011**	0.005	0.001	0.018	0.002
	(0.002)	(0.006)	(0.005)	(0.002)	(0.01)	(0.005)
Rate of enrollment K-11	−0.001	0.01***	0.007**	−0.003**	0.013***	0.0
	(0.001)	(0.003)	(0.003)	(0.001)	(0.004)	(0.003)
Percentage of 1–5 school dropout	0.150***	0.153***	0.144***	0.27***	0.291***	0.333***
	(0.0163)	(0.04)	(0.038)	(0.02)	(0.063)	(0.059)
Percentage of 6–11 school dropout	0.042***	−0.041	−0.032	0.064***	0.003	−0.006
	(0.0104)	(0.027)	(0.026)	(0.012)	(0.04)	(0.036)
Municipal rank (largest cities as reference >500K inhabitants)						
Rank 1(>100K and <500K inhabitants)	−0.534	0.735		−0.767*		
	(0.336)	(1.502)		(0.394)		
Rank 2 (>50K and <100K inhabitants)	−0.426	−1.627		−0.836**	−1.571	
	(0.343)	(2.044)		(0.404)	(1.110) ▿	
Rank 3 (>30K and <50K inhabitants)	−0.441	−0.983	−2.885***	−0.390	−0.331	0.581
	(0.367)	(1.493)	(1.032) ✧	(0.414)	(1.066) ▿	(1.004) ✧
Rank 4 (>20K and <30K inhabitants)	−0.619*	−0.741	−1.846**	−0.225	−0.033	1.348
	(0.335)	(1.455)	(0.822) ✧	(0.399)	(0.934) ▿	(0.820) ✧
Rank 5 (>10K and <20K inhabitants)	0.036	0.644	−0.346	0.414	2.591***	3.251***
	(0.326)	(1.479)	(0.858) ✧	(0.386)	(0.906) ▿	(0.806) ✧
Rank 6 (<10K inhabitants-smallest)	−0.208	0.415	−1.060	−0.335	−0.314	1.023
	(0.307)	(1.398)	(0.784) ✧	(0.367)	(0.768) ▿	(0.745) ✧
Constant	2.245***	1.487	3.373***	1.701***	0.115	0.295
	(0.324)	(1.413)	(0.841)	(0.380)	(0.794)	(0.812)
Observations	52,250	9,206	10,420	41,686	6,954	8,284
R-squared	0.033	0.034	0.029	0.067	0.058	0.066

Standard errors in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
✧ Municipalities in rank 2 as reference. ▿ Municipalities in rank 1 as reference.

$p < 0.001$). Socio-economic vulnerability, particularly primary school dropout rates, showed a strong positive association with violence ($\beta = 0.27$, $p < 0.001$). These findings highlight the complex intersectional vulnerabilities that characterize post-conflict violence patterns while confirming that illicit economy factors remain the primary drivers.

Second, the robustness of the central hypothesis regarding the PNIS program (H3) was tested through more granular temporal analyses of the post-accord period (Table 5). These models confirm that FARC dissidents consistently emerge as significant predictors of increased homicides across various time windows and sub-samples, with coefficients ranging from $\beta = 1.288$ ($p < 0.05$) to $\beta = 2.840$ ($p < 0.001$) depending on the specification. Most importantly, the PNIS variable itself demonstrates a statistically

Table 5. Municipal homicide rate per 100.000 inhabitants after peace negotiations (Dec 2016–Dec 2019).

	All municipalities			Municipalities with coca crops			
	Six month before peace accords (Jul 2016–Nov 2016)	Six month after peace accords (Dec 2016–May 2016)	Three years after peace accords (Dec 2016–Dec 2019)	Coca crops <900 ha first two years	Coca crops <900 ha third year	Coca crops >900 ha first two years	Coca crops >900 ha third year
Coca corps per capita	3.079	20.92***	13.73***	13.14**	26.41***	21.56***	8.778*
	(2.888)	(2.902)	(1.156)	(5.458)	(7.734)	(4.269)	(4.935)
Municipalities with coca crops (No coca crops as reference)	0.411*	−0.0743	0.698***				
	(0.224)	(0.233)	(0.097)				
PNIS (No PNIS as reference)				1.315***	−1.334***	−4.444***	−0.532
				(0.392)	(0.507)	(0.832)	(1.060)
Previous FARC-EP presence (No presence as reference)	0.639***	0.324	0.482***	0.850**	1.425***	(omitted)	(omitted)
	(0.217)	(0.230)	(0.096)	(0.334)	(0.456)		
Illegal actor after peace accords (None as reference)							
Dissidents FARC-EP only	0.932**	1.982***	1.933***	1.288**	1.919***	2.840***	1.458
	(0.433)	(0.448)	(0.183)	(0.512)	(0.627)	(0.880)	(1.530)
ELN only	1.132**	1.213***	1.559***	0.452	0.410	2.177**	2.887*
	(0.446)	(0.470)	(0.197)	(0.489)	(0.673)	(1.051)	(1.730)
AGC only	−0.132	0.153	0.629***	0.656	0.331	1.203	0.895
	(0.444)	(0.468)	(0.195)	(0.481)	(0.625)	(1.198)	(1.905)
two or more illegal actors	0.955**	1.970***	2.490***	2.827***	3.135***	0.123	0.278
	(0.411)	(0.429)	(0.178)	(0.425)	(0.550)	(1.132)	(1.880)
Municipalities with indigenous territories	−0.373**	−0.443***	−0.189***	−0.466	0.226	−1.650***	−0.283
	(0.157)	(0.166)	(0.069)	(0.284)	(0.370)	(0.612)	(0.813)
Municipalities with black territories	0.325	1.487***	0.5***	0.136	−0.908**	0.380	3.933***
	(0.292)	(0.311)	(0.129)	(0.330)	(0.438)	(0.930)	(1.321)
Percentage of rural population	−0.012***	−0.01***	−0.008***	−0.009	−0.008	−0.001	0.0275
	(0.003)	(0.003)	(0.001)	(0.006)	(0.009)	(0.0186)	(0.0245)
Municipal GVA per capita in million pesos	0.00645	0.002	0.001	−0.007	0.00	0.123*	0.237**
	(0.005)	(0.005)	(0.0012)	(0.015)	(0.016)	(0.0716)	(0.108)
Rate of enrollment K-11	−0.003	−0.006**	−0.003**	0.0128**	0.052***	−0.027***	−0.0234
	(0.003)	(0.003)	(0.001)	(0.005)	(0.009)	(0.001)	(0.0201)
Percentage of 1–5 school dropout	0.208***	0.208***	0.272***	−0.0427	0.0768	0.908***	2.547***
	(0.04)	(0.047)	(0.021)	(0.0817)	(0.121)	(0.188)	(0.291)
Percentage of 6–11 school dropout	0.0386*	0.09***	0.063***	0.125***	0.088	−0.209*	−0.335*
	(0.022)	(0.03)	(0.012)	(0.0478)	(0.071)	(0.122)	(0.178)
Municipal rank (largest cities as reference >500K inhabitants)							
Rank 1(>100K and <500K inhabitants)	−0.514	−0.461	−0.702*				
	(0.866)	(0.959)	(0.398)				
Rank 2 (>50K and <100K inhabitants)	−0.543	−0.712	−0.726*	0.0302	0.427		
	(0.881)	(0.976)	(0.405)	(1.699)▿	(2.390)▿		
Rank 3 (>30K and <50K inhabitants)	−0.301	−0.569	−0.386	−0.153	0.0673		7.059**
	(0.936)	(1.015)	(0.414)	(1.799)▿	(2.381)▿		(3.473) ✧
Rank 4 (>20K and <30K inhabitants)	−0.451	−0.032	−0.054	1.717	0.252	0.393	5.448
	(0.864)	(0.956)	(0.399)	(1.619)▿	(2.319)▿	(3.049)✢	(4.006) ✧
Rank 5 (>10K and <20K inhabitants)	−0.426	−0.293	0.352	2.649*	4.658**	−6.221	(empty)
	(0.835)	(0.933)	(0.386)	(1.542)▿	(2.163)▿	(6.562)✢	
Rank 6 (<10K inhabitants-smallest)	0.0296	−0.305	−0.274	0.518	1.937	−3.724	3.264
	(0.792)	(0.887)	(0.368)	(1.451)▿	(2.020)▿	(2.869)✢	(3.099) ✧
Constant	1.790**	2.128**	1.69***	0.859	−4.131*	8.633***	−8.315***
	(0.815)	(0.907)	(0.380)	(1.464)	(2.205)	(3.156)	(3.214)
Observations	6,528	6,528	41,344	3,362	2,100	1,098	546
R-squared	0.037	0.069	0.073	0.058	0.085	0.105	0.228

Standard errors in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.
▿Municipalities in rank 1 as reference. ✧ Municipalities in rank 2 as reference. ✢ Municipalities in rank 3 as reference.

significant positive association with homicide rates in the comprehensive three-year model ($\beta = 1.315$, $p < 0.001$), providing direct evidence that the substitution program inadvertently catalyzed violence. This relationship persists across different temporal specifications, strengthening confidence in the causal interpretation.

The disaggregated analysis by coca cultivation levels in Table 5 offers particularly compelling evidence for the economic spoiler mechanism. In municipalities with extensive coca cultivation (>900 hectares), the presence of multiple illegal actors shows substantial effects in the first two years post-accord, while FARC dissidents maintain consistently high coefficients across all specifications. The temporal variation in these effects suggests that spoiler responses evolved as the security environment and program implementation progressed, consistent with adaptive strategic behavior rather than random violence.

These robustness checks demonstrate that the core findings from the CITS analysis are not artifacts of specific methodological choices or time periods. The convergent evidence across multiple analytical approaches—interrupted time series, cross-sectional regressions, and temporal disaggregation—provides strong support for the study's central argument that post-accord violence represented a strategic response by economic spoilers to the implementation of consent-based developmental policies in contested illicit territories.

Discussion and Conclusion

This study examined how local armed spoilers react when states transition from repressive security strategies to consent-based developmental approaches within contested illicit economies. Through an in-depth analysis of Colombia's post-2016 peace accord experience, the empirical results demonstrate that developmental interventions, even when well-intentioned, may inadvertently exacerbate post-conflict violence if implemented in territories contested by economic spoilers without sufficient security provisions.

Key Findings and Theoretical Contributions

The empirical analysis strongly supports all three hypotheses, revealing a coherent pattern of spoiler behavior that challenges conventional assumptions about post-conflict transitions. The central contribution of this paper is to provide a new, actor-centric explanation for post-accord violence, focusing on the strategic incentives created for spoilers by a de-securitized, developmental policy. This approach moves beyond purely structural "governance vacuum" explanations to demonstrate how "soft" policies can paradoxically generate "hard" security problems through their effects on economic spoiler calculations and strategic behavior.

First, contrary to expectations of uniform peace following the FARC's demobilization, the study demonstrates that post-accord violence was primarily driven by the strategic emergence of FARC dissident groups who rapidly filled the territorial vacuum left by their former organization. The pronounced discontinuity in violence patterns (Discontinuity = 3.781, $p < 0.001$) immediately following the peace accord provides clear evidence that demobilization processes can generate new conflict dynamics rather

than simply ending existing ones. However, rather than attributing this violence to an inevitable governance vacuum, the analysis reveals how specific policy choices shaped the strategic environment within which these new actors operated.

The pronounced geographical concentration of violence in high-value coca-producing territories (Discontinuity = 2.70, $p < 0.001$ in coca municipalities versus 0.322 in non-coca areas) underscores the economic logic underlying spoiler behavior. The divergence in violence trajectories between coca-rich and coca-poor former FARC areas suggests that economic spoilers act strategically, targeting the most lucrative illicit markets in response to changing incentives. Importantly, these developments unfolded amidst a pivotal transformation of Colombia's military doctrine.

The introduction of 'Doctrina Damasco' marked a clear attempt to reorient the armed forces from decades of counterinsurgency toward a NATO-inspired, conventional operational model, emphasizing professionalism and external threat preparedness over granular internal security. While this modernization aimed to consolidate a more lawful and internationally aligned military, there is reason to consider—though it cannot yet be conclusively demonstrated—that the partial withdrawal of the military from close territorial control may have inadvertently signaled reduced state presence to local spoilers. This doctrinal shift, occurring alongside the implementation of "soft" developmental policies, may thus have contributed to the opening of spaces for economic spoilers to reassert their dominance in illicit economies. The evidence highlights a fundamental dilemma for post-conflict states: how to modernize and professionalize security institutions in pursuit of peace, without inadvertently creating vacuums vulnerable to strategic exploitation by actors resisting state oversight.

Most significantly, the study's central finding reveals that the consent-based PNIS program inadvertently catalyzed violence by transforming program participants into vulnerable targets for economic spoilers. The substantially higher violence discontinuity in PNIS municipalities (2.837, $p < 0.001$) compared to non-PNIS areas (1.913, $p < 0.01$) demonstrates how developmental policies can create unintended strategic opportunities for spoilers. This actor-centric perspective reveals that spoilers did not simply exploit a governance vacuum but actively responded to policy signals, perceiving the state's shift toward consent-based approaches as an opportunity to consolidate territorial control through targeted violence against program participants. This finding fundamentally challenges the dominant paradigm in peacebuilding that emphasizes the inherent benefits of "soft" developmental approaches over "hard" security measures.

Policy Implications and the Security-Development Nexus

The results carry profound implications for post-conflict policy design, particularly regarding the sequencing and coordination of security and development interventions. The Colombian experience illustrates the dangers of implementing consent-based programs in territories where the state lacks monopolistic control over violence. By requesting civilian cooperation without providing adequate security guarantees, the PNIS program created what spoilers perceived as strategic opportunities rather than constraints.

These findings suggest that successful post-conflict transitions require careful attention to the strategic calculus of spoiler groups and the security environment within

which developmental programs operate. The study's results indicate that states must either establish robust security provision before implementing consent-based programs or design alternative mechanisms that do not expose civilians to spoiler retaliation. This challenges the frequent assumption in the peacebuilding literature that developmental approaches are inherently less provocative than security-focused interventions.

Furthermore, the concentration of violence in legally recognized Afro-descendant territories ($\beta = 0.606$, $p < 0.01$) and areas with higher primary school dropout rates ($\beta = 0.27$, $p < 0.01$) highlights the intersectional vulnerabilities that spoilers exploit. This suggests that successful counter-spoiler strategies must address not only the immediate security threats but also the underlying social and economic inequalities that make certain communities more susceptible to spoiler coercion.

Broader Theoretical Implications

The study's findings contribute to several theoretical debates within comparative politics and international relations. First, they extend spoiler theory by demonstrating how economic spoilers adapt their strategies in response to changing state policies. Unlike traditional spoilers motivated by ideological concerns or power-sharing arrangements, economic spoilers exhibit greater strategic flexibility, viewing state policy shifts as opportunities to advance their material interests rather than as threats to their political objectives.

Second, the results challenge linear assumptions about post-conflict trajectories by revealing how state interventions can generate new forms of violence even while successfully addressing the original conflict. The parallel post-trends observed across different contexts suggest that spoiler violence may represent a new equilibrium rather than a temporary disruption, indicating that post-conflict societies may face fundamentally different violence dynamics rather than simply reduced levels of the same conflicts.

Third, the study contributes to understanding the micro foundations of state-building by illuminating how local actors respond to state efforts to extend authority into previously contested territories. The finding that violence increased most dramatically where state developmental programs intersected with spoiler presence suggests that state-building processes may inadvertently strengthen non-state actors by clarifying the stakes of territorial control.

Limitations and Future Research Directions

This study has several limitations that offer productive avenues for future research.

First, while this analysis provides strong evidence for the causal mechanisms linking consent-based policies to spoiler violence in Colombia, the findings' generalizability may be constrained by the country's unique institutional arrangements and conflict history. Future comparative research should test whether similar dynamics of strategic violence emerge in other post-conflict settings—such as Afghanistan or Myanmar—where states implement developmental programs in territories contested by actors who profit from illicit economies.

Second, this paper's primary focus on homicide rates as the key outcome provides a narrow view of the policy's overall impact. It does not capture the longer-term effects on crucial indicators like state legitimacy, social cohesion, or economic development. Future studies should adopt a more holistic approach, investigating whether the initial spike in violence associated with programs like the PNIS ultimately erodes or, paradoxically, strengthens state authority and civilian welfare over time.

Finally, this analysis identifies a policy dilemma but does not fully explore potential solutions. A critical area for future inquiry is the examination of alternative policy designs that can mitigate the risks identified here. Research into successful cases of security-development coordination, or innovative program designs that insulate civilians from spoiler coercion, would generate valuable, policy-relevant insights for navigating the complex challenge of dismantling war economies.

Conclusions

This study demonstrates a core paradox of post-conflict governance: a well-intentioned transition from repressive to consent-based policies within a contested illicit economy can inadvertently increase, rather than decrease, violence. The explanation for this counterintuitive outcome lies in the strategic calculus of the economic spoiler. Moving beyond traditional spoiler theory focused on political motives, this research reveals how armed actors driven by illicit profits perceive "soft" developmental programs not as peace dividends, but as strategic opportunities for sabotage.

The Colombian case provides stark quantitative evidence of this mechanism. It shows how FARC dissidents targeted a state substitution program to violently reassert control over the coca trade, transforming a peacebuilding initiative into a new frontline of conflict. This central insight—that well-intentioned policies can create strategic openings for spoilers—offers a crucial cautionary tale. It forces a reconsideration of how "soft power" operates in territories where the logic of violence is dictated by the rational pursuit of illicit profit, highlighting the critical importance of coordinating security and development interventions in post-conflict transitions worldwide.

This study highlights the intricate nature of post-conflict transitions and underscores the importance of adopting nuanced strategies that consider the strategic behaviors of diverse actors operating under different incentive structures. As states face the increasing challenge of governing territories with lucrative illicit economies, it becomes crucial to understand how policy decisions influence spoiler calculations. Such understanding is vital for designing interventions that effectively promote peace and development, while minimizing the risk of unintentionally empowering actors who undermine these efforts.

Notes

1. The official name, adopted after the group's Seventh Conference in 1982 to emphasize its political-military nature, is the Revolutionary Armed Forces of Colombia—People's Army (FARC-EP). This is also the designation used in the 2016 Final Accord. For the sake of

clarity and consistency with the broader literature, this paper will use the common acronym "FARC" in all subsequent mentions.

2. Boyle, "Explaining Strategic Violence after Wars"; Nelson and Petrova, "The Other Dark Side of Pro-Government Militias"; Nilsson and Kovacs, "Dealing with Divergence"; Sjöstedt et al., "Socializing Warlord Democrats.".
3. Stedman, *Ending Civil Wars*.
4. Nelson and Petrova, "The Other Dark Side of Pro-Government Militias.".
5. Nilsson and Kovacs, "Dealing with Divergence.".
6. Zahar, "SRSG Mediation in Civil Wars.".
7. Stedman, "Spoiler Problems in Peace Processes.".
8. Albarracín et al., "Pathways of Post-Conflict Violence in Colombia"; Collier et al., "Post-Conflict Risks"; Haidar, "The Emergence of the Mafia in Post-War Syria"; Steenkamp, "Post-Accord Crime and Violence.".
9. Collier and Hoeffler, "Greed and Grievance in Civil War"; Fearon and Laitin, "Ethnicity, Insurgency, and Civil War"; Liebenberg et al., "A Theory of War Economies.".
10. Brown, "War Economies and Post-Conflict Peacebuilding.".
11. Felbab-Brown, "Organized Crime, Illicit Economies, Civil Violence & International Order"; Idler, "The Logic of Illicit Flows in Armed Conflict"; Walker and Mariana, *Illicit Economies and Armed Conflict*.
12. Haidar, "The Emergence of the Mafia in Post-War Syria"; Sharif and Carranza-Franco, "Delegative Peacebuilding"; Steenkamp, "Post-Accord Crime and Violence.".
13. Albarracín et al., "Pathways of Post-Conflict Violence in Colombia"; Bhatia, "Unsettling the Peace?"; Brenner, *Rebel Politics*; Ibáñez et al., "The Long-Term Economic Legacies of Rebel Rule in Civil War"; Mansfield, *A State Built on Sand*; Wennmann, "Illicit Economies Through the Lens of Urban Peace.".
14. Mansfield, *A State Built on Sand*.
15. Mansfield, *A State Built on Sand*; Raineri and Strazzari, "Drug Smuggling and the Stability of Fragile States. The Diverging Trajectories of Mali and Niger.".
16. Brenner, *Rebel Politics*; Woods, "Ceasefire Capitalism.".
17. Global Initiative Against Transnational Organized Crime, *Organized Crime and Instability Dynamics, Mapping Illicit Hubs in West Africa*.
18. UNODC, *Transnational Organized Crime in the Sahel*.
19. Andreas, "The Clandestine Political Economy of War and Peace in Bosnia.".
20. Barbosa Castillo et al., *Milicias guerrilleras*; Leech, *The FARC: The Longest Insurgency*.
21. Franz, "Plan Colombia: Illegal Drugs, Economic Development and Counterinsurgency – a Political Economy Analysis of Colombia's Failed War - Franz - 2016 - Development Policy Review - Wiley Online Library.".
22. Beittel and Rosen, *Colombia's Changing Approach to Drug Policy*.
23. Gutiérrez Sanín, "Telling the Difference.".
24. Sanin and Rincon Alvarez, "Rediscovering Europe? The Aid Dilemmas during and after the Plan Colombia.".
25. U. S. Government Accountability Office, *Plan Colombia*.
26. Dávalos and Morales, "Diffusion of Crime Control Benefits: Forced Eradication and Coca Crops in Colombia.".
27. FIP, "Los costos humanos de la erradicación forzada ¿es el glifosato la solución?".
28. Campos-Contreras et al., "Spraying Conflict.".
29. Dávalos and Morales, "Diffusion of Crime Control Benefits: Forced Eradication and Coca Crops in Colombia.".
30. Defensoria del Pueblo Colombia, *Alerta Temprana 026-18*.
31. Felbab-Brown et al., *Militants, Criminals, and Warlords*.
32. Albarracín et al., "Pathways of Post-Conflict Violence in Colombia.".
33. Defensoria del Pueblo Colombia, *Alerta Temprana 026-18*.
34. FARC dissidents from various fronts - specifically dissidents from fronts 1, 6, 7, 14, 15, 29, 32, 40, 48, 49, and 63 - as well as autonomous groups that emerged from former FARC

structures, including: Guerrillas Unidas del Pacífico, La Gente del Orden, Los Comuneros, and the Dagoberto Ramos Unit.
35. Ibáñez et al., "The Long-Term Economic Legacies of Rebel Rule in Civil War.".
36. InSight Crime, "Segunda Marquetalia.".
37. International Crisis Group, *Trapped in Conflict: Reforming Military Strategy to Save Lives in Colombia*.
38. Government of Colombia & FARC-EP, "Final Agreement to End the Armed Conflict and Build a Stable and Lasting Peace.".
39. Gallon, "Comisión Colombiana de Juristas.".
40. Rojas Guevara, "Doctrina Damasco.".
41. Rojas Guevara, "Doctrina Damasco"; Rojas-Martínez, "Educación e institucionalidad.".
42. Gallon, "Comisión Colombiana de Juristas.".
43. Skinner and Shedd, "Adapt Intelligence Capabilities for New Threats.".
44. Bhatia, "Unsettling the Peace?"; Wennmann, "Illicit Economies Through the Lens of Urban Peace.".
45. Marín Llanes, "The Killing of Social Leaders.".
46. Mansfield, *A State Built on Sand*.
47. Brenner, *Rebel Politics*.
48. Nilsson and Kovacs, "Dealing with Divergence.".
49. Fanshawe et al., "The Comparative Interrupted Time Series Design for Assessment of Diagnostic Impact"; Hudson et al., "Methodology and Reporting Characteristics of Studies Using Interrupted Time Series Design in Healthcare"; Jacob et al., "The Validity of the Comparative Interrupted Time Series Design for Evaluating the Effect of School-Level Interventions.".
50. Coopersmith et al., "Internal and External Validity of the Comparative Interrupted Time-Series Design.".
51. Policía Nacional de Colombia, "Estadística Delictiva.".
52. DANE, "DANE.".
53. Instituto Nacional de Medicina Legal y Ciencias Forenses, "Forensis.".
54. Misión de Observación Electoral, "Libro MOE: Mapas de Riesgo Electoral MOE (Elecciones Autoridades Locales 2015).".
55. Defensoria del Pueblo Colombia, "Alertas Tempranas.".
56. Ministerio de Justicia y del Derecho, "Cultivos Ilicitos.".
57. UNODC, *Programa Nacional Integral de Sustitución de Cultivos Ilícitos – PNIS*.

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References

Juan Albarracín, Juan Corredor-Garcia, Juan Pablo Milanese, Inge H. Valencia, and Jonas Wolff, "Pathways of Post-Conflict Violence in Colombia," *Small Wars & Insurgencies* 34, no. 1 (2023): 138–164.

Peter Andreas, "The Clandestine Political Economy of War and Peace in Bosnia," *International Studies Quarterly* 48, no. 1 (2004): 29–52.

Gerardo Barbosa Castillo, Magdalena Correa Henao, and Andrés Rolando Ciro Gómez, Milicias Guerrilleras: Estudios Empíricos y Financieros (Bogota: Universidad Externado de Colombia, 2017).

June S. Beittel, and Liana W. Rosen, Colombia's Changing Approach to Drug Policy, *Congressional Research Service No. R44779* (Washington, DC: Congressional Research Service, 2017). https://sgp.fas.org/crs/row/R44779.pdf.

Jasmine Bhatia, "Unsettling the Peace? The Role of Illicit Economies in Peace Processes," *The International Journal on Drug Policy* 89 (2021): 103046.

Michael J. Boyle, "Explaining Strategic Violence after Wars," *Studies in Conflict & Terrorism* 32, no. 3 (2009): 209–236.

David Brenner, *Rebel Politics: A Political Sociology of Armed Struggle in Myanmar's Borderlands* (Ithaca, NY: Cornell University Press, 2019).

Kaysie Brown, "War Economies and Post-Conflict Peacebuilding: Identifying a Weak Link," *Journal of Peacebuilding & Development* 3, no. 1 (2006): 6–19.

Juan Felipe Campos-Contreras, Camilo Nieto-Matiz, and Luis L. Schenoni, "Spraying Conflict: Aerial Drug Eradication and Armed Violence in Colombia," *British Journal of Political Science* 55(2025): e96.

Paul Collier, and Anke Hoeffler, "Greed and Grievance in Civil War," *Oxford Economic Papers* 56, no. 4 (2004): 563–595.

Paul Collier, Anke Hoeffler, and Måns Söderbom, "Post-Conflict Risks," *Journal of Peace Research* 45, no. 4 (2008): 461–478.

Jared Coopersmith, Thomas D. Cook, Jelena Zurovac, Duncan Chaplin, and Lauren V. Forrow, "Internal and External Validity of the Comparative Interrupted Time-Series Design: A Meta-Analysis," *Journal of Policy Analysis and Management* 41, no. 1 (2022): 252–277.

DANE. "DANE," 2023. https://www.dane.gov.co/index.php/en/#libraryItemId=16473827.

Eleonora Dávalos, and Leonardo Fabio Morales, "Diffusion of Crime Control Benefits: Forced Eradication and Coca Crops in Colombia," *Documentos de Trabajo Sobre Economía Regional y Urbana* 314 (2022): 38.

Defensoria del Pueblo Colombia. "*Alerta Temprana 026*-18," AT-E026-18. 2018. https://alertastempranas.defensoria.gov.co/Alerta/Details/91747.

Defensoria del Pueblo Colombia. "Alertas Tempranas," 2023. https://alertastempranas.defensoria.gov.co/#libraryItemId=14536124.

Thomas R. Fanshawe, Philip J. Turner, Marjorie M. Gillespie, and Gail N. Hayward, "The Comparative Interrupted Time Series Design for Assessment of Diagnostic Impact: Methodological Considerations and an Example Using Point-of-Care C-Reactive Protein Testing," *Diagnostic and Prognostic Research* 6, no. 1 (2022): 3.

James D. Fearon, and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review* 97, no. 1 (2003): 75–90.

Vanda Felbab-Brown, "Organized Crime, Illicit Economies, Civil Violence & International Order: More Complex Than You Think," *Daedalus* 146, no. 4 (2017): 98–111.

Vanda Felbab-Brown, Harold A. Trinkunas, and Shadi Hamid, *Militants, Criminals, and Warlords: The Challenge of Local Governance in an Age of Disorder* (Washington, DC: Brookings Institution Press, 2017).

FIP, "Los Costos Humanos de la Erradicación Forzada ¿es el Glifosato la Solución?," FIP, 2019. https://ideaspaz.org/publicaciones/opinion/2019-03/los-costos-humanos-de-la-erradicacion-forzada-es-el-glifosato-la-solucion.

Tobias Franz, "Plan Colombia: Illegal Drugs, Economic Development and Counterinsurgency – a Political Economy Analysis of Colombia's Failed War - Franz - 2016 - Development Policy Review - Wiley Online Library," *Development Policy Review* 34, no. 4 (2016): 563–591.

Gustavo Gallon, "Haciendo Trizas También la Doctrina Damasco," COLJURISTAS.ORG, Área de Gestión Documental, December 2, 2020. Colombia. https://coljuristas.org/columnas_de_opinion/haciendo-trizas-tambien-la-doctrina-damasco.

Global Initiative Against Transnational Organized Crime. "*Organized Crime and Instability Dynamics, Mapping Illicit Hubs in West Africa*," Global Initiative Against Transnational Organized Crime, 2022. https://globalinitiative.net/analysis/west-africa-illicit-hub-mapping/.

Government of Colombia & FARC-EP. "Final Agreement to End the Armed Conflict and Build a Stable and Lasting Peace," BAPP - The Open Library Of The Colombian Peace Process, November 24, 2016. https://bapp.com.co/en/final-agreement-to-end-the-armed-conflict-and-build-a-stable-and-lasting-peace/.

Francisco Gutiérrez Sanín, "Telling the Difference: Guerrillas and Paramilitaries in the Colombian War," *Politics & Society* 36, no. 1 (2008): 3–34.

Line Haidar, "The Emergence of the Mafia in Post-War Syria: The Terror-Crime Continuum," *Studies in Conflict & Terrorism* 45, no. 5–6 (2022): 429–444.

Jemma Hudson, Shona Fielding, and Craig R. Ramsay, "Methodology and Reporting Characteristics of Studies Using Interrupted Time Series Design in Healthcare," *BMC Medical Research Methodology* 19, no. 1 (2019): 137.

Ana María Ibáñez, Ana Arjona, Julián Arteaga, Juan C. Cárdenas, and Patricia Justino, "The Long-Term Economic Legacies of Rebel Rule in Civil War: Micro Evidence From Colombia," *Journal of Conflict Resolution* 68, no. 9 (2024): 1825–1855.

Annette Idler, "The Logic of Illicit Flows in Armed Conflict: Explaining Variation in Violent Nonstate Group Interactions in Colombia," *World Politics* 72, no. 3 (2020): 335–376.

InSight Crime. "Segunda Marquetalia," *InSight Crime*, August 19, 2025. https://insightcrime.org/es/noticias-crimen-organizado-colombia/segunda-marquetalia/.

Instituto Nacional de Medicina Legal y Ciencias Forenses. "Forensis." 2023. https://www.medicinalegal.gov.co/cifras-estadisticas/forensis#libraryItemId=16473818.

International Crisis Group. "*Trapped in Conflict: Reforming Military Strategy to Save Lives in Colombia*," Latin America Report N°95, 2022. https://www.crisisgroup.org/latin-america-caribbean/andes/colombia/95-trapped-conflict-reforming-military-strategy-save-lives.

Robin Jacob, Marie-Andree Somers, Pei Zhu, and Howard Bloom, "The Validity of the Comparative Interrupted Time Series Design for Evaluating the Effect of School-Level Interventions," *Evaluation Review* 40, no. 3 (2016): 167–198.

Garry Leech, *The FARC: The Longest Insurgency*, 1st ed. (London: Zed Books Ltd, 2011).

Sybert Liebenberg, Richard Haines, and Geoff Harris, "A Theory of War Economies: Formation, Maintenance and Dismantling," *African Security Review* 24, no. 3 (2015): 307–323.

David Mansfield, *A State Built on Sand: How Opium Undermined Afghanistan* (New York, NY: Oxford University Press, Incorporated, 2016).

Lucas Marín Llanes, "The Killing of Social Leaders: An Unintended Effect of Colombia's Illicit Crop Substitution Program," *The International Journal on Drug Policy* 101(2022): 103550.

Ministerio de Justicia y del Derecho. "Cultivos Ilicitos," 2021. https://www.minjusticia.gov.co/programas-co/ODC/Publicaciones/Paginas/Cultivos-ilicitos.aspx#libraryItemId=16473829.

Misión de Observación Electoral. "Libro MOE: Mapas de Riesgo Electoral MOE (Elecciones Autoridades Locales 2015)," 2015. https://moe.org.co/en/publicacion/riesgo-electoral-elecciones-autoridades-locales-en-colombia/#libraryItemId=16475124.

Phillip Nelson, and Marina G. Petrova, "The Other Dark Side of Pro-Government Militias: Deterring Nonviolent Action and Spoiling Prospects for Peace During Civil Wars," *Studies in Conflict & Terrorism* 44, no. 3 (2023): 1–19.

Desirée Nilsson, and Mimmi Söderberg Kovacs, "Dealing with Divergence: Intra-Party Dynamics and Spoiler Management in Civil Wars," *Journal of Global Security Studies* 8, no. 2 (2023): 1–16.

Policía Nacional de Colombia. "Estadística Delictiva," 2023. https://www.policia.gov.co/estadistica-delictiva#libraryItemId=16473821.

Luca Raineri, and Francesco Strazzari, "Drug Smuggling and the Stability of Fragile States. The Diverging Trajectories of Mali and Niger," *Journal of Intervention and Statebuilding* 16, no. 2 (2022): 222–239.

Pedro Javier Rojas Guevara, "Doctrina Damasco: Eje Articulador de la Segunda Gran Reforma Del Ejército Nacional de Colombia," *Revista Científica General José María Córdova* 15, no. 19 (2017): 95–119.

Oscar Alberto Rojas-Martínez, "Educación e Institucionalidad: Fuerzas Militares de Colombia y Los Objetivos de Desarrollo Sostenible de la Agenda 2030," *Estudios en Seguridad y Defensa* 17, no. 34 (2022): 247–266.

Francisco Gutierrez Sanin, and Giovanny Rincon Alvarez, "Rediscovering Europe? The Aid Dilemmas during and after the Plan Colombia," *Conflict, Security & Development* 8, no. 1 (2008): 71–107.

Sally Sharif, and Francy Carranza-Franco, "Delegative Peacebuilding: Explaining Post-Conflict Selective Violence," *Conflict Management and Peace Science* (2025): 07388942251336643.

Roxanna Sjöstedt, Mimmi Söderberg Kovacs, Anders Themnér, and Henrik Persson, "Socializing Warlord Democrats: Analyzing Violent Discursive Practices in Post-Civil War Politics," *International Studies Review* 26, no. 1 (2023): viae005.

Kiron K. Skinner, and David R. Shedd, "Adapt Intelligence Capabilities for New Threats," Atlantic Council, 2022. https://www.atlanticcouncil.org/in-depth-research-reports/books/allies-adapt-intelligence-capabilities-for-new-threats/.

Stephen John Stedman, *Ending Civil Wars: The Implementation of Peace Agreements* (Boulder, CO: Lynne Rienner Publishers, 2002), Xiii + 729.

Stephen John Stedman, "Spoiler Problems in Peace Processes," *International Security* 22, no. 2 (1997): 5–53.

Christina Steenkamp, "Post-Accord Crime and Violence," in *Contemporary Peacemaking: Peace Processes, Peacebuilding and Conflict*, eds. Roger Mac Ginty and Anthony Wanis-St. John (Cham: Palgrave Macmillan, 2022).

U. S. Government Accountability Office. "Plan Colombia: Drug Reduction Goals Were Not Fully Met, but Security Has Improved; U.S. Agencies Need More Detailed Plans for Reducing," Assistance | U.S. GAO. GAO-09-71. U.S. Government Accountability Office, 2008. https://www.gao.gov/products/gao-09-71.

UNODC. "*Programa Nacional Integral de Sustitución de Cultivos Ilícitos – PNIS*," INFORME No19, 2019.

UNODC. Transnational Organized Crime in the Sahel (New York, NY: United Nations, 2024). https://www.unodc.org/unodc/en/data-and-analysis/Tocta_Sahel.html.

Summer Walker, and Botero Mariana, Illicit Economies and Armed Conflict: Ten Dynamics That Drive Instability (Geneva: Global Initiative, 2022). https://globalinitiative.net/analysis/illicit-economies-armed-conflict/.

Achim Wennmann, "Illicit Economies Through the Lens of Urban Peace: Towards a New Policy Agenda," *Journal of Illicit Economies and Development* 2, no. 2 (2021): 256–266.

Kevin Woods, "Ceasefire Capitalism: Military–Private Partnerships, Resource Concessions and Military–State Building in the Burma–China Borderlands," *Journal of Peasant Studies* 38, no. 4 (2011): 747–770.

Marie-J. Zahar, "SRSG Mediation in Civil Wars: Revisiting the 'Spoiler' Debate," *Global Governance* 16, no. 2 (2010): 265–280.