(Un-)Persistent Conflict? The Effects of First Globalization Coffee Boom in Colombia

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1 Introduction

Over the past three decades, much ink has been spilled exploring the underperformance of Latin American republics relative to their European and North American counterparts (Acemoglu et al., 2001; Sokoloff and Engerman, 2000; Frankema, 2009; Maloney and Valencia-Caicedo, 2016). Preponderant among the competing hypotheses is one where endowments and geographic characteristics present during colonial times determine the 'deep' parameters driving the long-run development of damaging institutions (Acemoglu et al., 2002; Easterly, 2007; Eslava and Valencia-Caicedo, 2025). In Latin America, an important corollary of this hypothesis is that these damaging institutions mechanically created chronic political instability—which, in turn, fomented recurrent episodes of intra-state conflict.[1] (North et al., 2000; Bates et al., 2007; Centeno, 1997; Acemoglu and Robinson, 2019). A common implication from this literature is that early conflict erodes local institutions, increasing the likelihood of further violence down the line and locking in undesirable equilibria (Besley and Persson, 2008; Kronick and Rodríguez, 2023; Fearon and Laitin, 2003, 2014). However, while much is asserted about this endemic nature of Latin American conflict, its historical trajectory is rarely discussed.

[1] North et al. (2000) present the standard approach on p. 41: "*... Widespread political instability and violence distinguish much of Latin America. While the US enjoyed an enduring set of political arrangements that both provided stability and protected markets from predation, most of Spanish America erupted in internecine war. Instability diverted resources from economic activity and channelled them into caudillo armies and a variety of praetorian efforts. Instability made it impossible to establish institutions that could bring the expected private returns rate from investment closer in line with social returns.*"

Colombia offers a chance to trace one paradigmatic trajectory directly. Like many of its Latin American counterparts, Colombia experienced a tumultuous start as a nation-state after independence in the early 1800s. As Mazzuca and Robinson (2009) note, "*Colombia's nineteenth century was politically chaotic even by Hispanic American standards: the record includes nine national civil wars, dozens of local revolts and mutinies, material destruction equivalent to the loss of several years of economic output, and at least 250,000 deaths due to political violence.*" These conflicts were, at their core, partisan struggles over control of the nascent republican state (Fergusson et al., 2013). In contrast, late twentieth-century Colombia is better known for a very different kind of conflict, marked by drug trafficking, guerrilla insurgencies, and paramilitary violence. Moreover, recent evidence suggests that these conflicts are primarily economic in nature, rooted in the presence and contestation of extractable rents (Angrist and Kugler, 2008; Dube and Vargas, 2013).

How does a country transition from partisan wars over state control to violence rooted in the control of economic resources? This article provides one link in that broader trajectory by examining how the First Globalization commodity boom—specifically, the rise of the coffee economy—created, for the first time, extractable economic rents sizable enough to fuel armed conflict during Colombia's first major civil war of the twentieth century, known as *La Violencia*. The emergence of the coffee industry at the outset of the twentieth century cannot be overstated.[2] One of Latin America's poorest countries during the nineteenth century, Colombia saw coffee exports rise from 8% of total exports in 1870 to 80% in the 1950s, reaching as high as 15% of GDP (Safford and Palacios, 2002, p.272), becoming the second largest exporter of coffee in the world after Brazil. The geographic variation in this export boom enables a disaggregated analysis of how this economic transformation shifted the geography and intensity of civil conflict.

To examine this transformation, I compile a new municipality-level dataset combining newly digitized records of nineteenth- and twentieth-century conflict, historical coffee production, census records, and standard controls from the Colombian civil war literature. First, I document that while the *incidence* of conflict appears widespread and persistent across Colombian history, the *intensity* of violence in the nineteenth century and during *La Violencia* is spatially uncorrelated—suggesting a structural break in the geography of civil war. Second, I show that the First Globalization commodity boom—centered exclusively on coffee—reoriented national production toward a newly settled agricultural frontier. These new coffee-growing

[2] Coffee is perhaps the single most studied topic in Colombian economic history of the twentieth century. In one of the first Anglophone works of economic historiography on Colombia, William McGreevey explains: *"No other substantive economic change in Colombian economic history can have been of such overriding social importance."* (McGreevey, 1971, p.198)

regions displaced traditional nineteenth-century agrarian centers and, by 1930, accounted for over 70% of national coffee production—up from just 5% in 1888. Third, it is precisely this new coffee frontier that becomes the epicenter of violence in the late 1950s—a pattern not accounted for by competing theories emphasizing land tenure conflict, political competition, or weak state capacity. Finally, I explore the mechanisms behind the coffee–violence link. Drawing on historical evidence and original municipal-level data, I show that economic banditry—a defining feature of the mid-century civil war—persisted primarily in coffee-producing municipalities, where rents were easily appropriable and could sustain armed activity over time.

2 Empirical Analysis

This section provides quantitative tests of three claims advanced in the historical analysis.

1. **No persistence in intensity.** Municipalities that saw intense nineteenth-century conflict were not the ones that experienced the highest intensity during *La Violencia*. The spatial break is consistent with a shift from partisan warfare over state control to violence organized around economic rents.

2. **Coffee is the main explanation for late *La Violencia* violence.** Because the mid-twentieth-century conflict was largely economic, pre-1950 coffee intensity is the most informative predictor of late-period violence. It outperforms alternative explanations—political competition, land-tenure conflict, and local state capacity—when evaluated side-by-side and under a common empirical framework.

3. **Mechanism via appropriable rents.** Coffee created easily appropriable rents that sustained local armed groups. We show that the presence and size of bandit organizations are increasing in coffee intensity, and we document how this channel operated on the ground using contemporary qualitative evidence complemented by a small quantitative exercise.

2.1 Persistence and Anti-Persistence of Conflict

2.1.1 Discussion

The results show a sharp contrast between incidence and intensity measures of conflict persistence. Binary indicators suggest a robust link between nineteenth- and twentieth-century violence, but this relationship disappears—and even reverses in sign—once intensity is considered. This is not a statistical quirk. Figure **??** provides the intuition: while incidence maps (left panels) suggest conflict was widespread in both centuries, intensity maps (right panels) reveal different geographies. Nineteenth-century conflict concentrated in the Caribbean coast, the southwest, and parts of the old frontier, while mid-twentieth-century violence was heavily concentrated in the coffee frontier.

This combination of (i) no persistence in intensity and (ii) strong evidence that coffee drove mid-century violence raises the bar for both "persistence" and "anti-persistence" arguments. Studies that claim long-run persistence from nineteenth-century to late-twentieth-century violence must explain why persistence disappears for this major mid-century conflict. Likewise, anti-persistence arguments must provide clear mechanisms for discontinuity across time.

More broadly, the results suggest that narratives of Latin American history as one of continuous endemic violence are insufficient. The Colombian case instead highlights a major transformation: during the First Globalization, conflict shifted from partisan struggles over state bureaucracy to contests over appropriable economic rents. The next section turns to an empirical analysis of this transformation.

2.2 Coffee and Conflict

The previous section showed that the intensity of *La Violencia* is not explained by the persistence of nineteenth-century civil conflict. The historical analysis (Section **??**) suggests instead that intensity is related to coffee cultivation: municipalities with larger coffee sectors plausibly offered higher appropriable rents. I therefore test whether coffee cultivation is the primary correlate of variation in conflict intensity relative to competing theories. I estimate a benchmark specification by OLS using alternative measures of mid-century conflict and coffee cultivation:

$$\text{Violence}_m = \beta \text{Coffee}_m + \mathbf{G}_m'\boldsymbol{\gamma} + \mathbf{X}_m'\boldsymbol{\Gamma} + \mu_d + \varepsilon_m. \tag{1}$$

Violence_m denotes municipal measures of *La Violencia* (incidence or intensity). Coffee_m

denotes alternative measures of coffee cultivation. The coefficient of interest is β. μ_d are department fixed effects. $\mathbf{X}_m$ collects "competing theories" variables (Section 3.3.1): (i) log municipal revenues in 1962 to capture a *state capacity* channel; (ii) an electoral competition index for the 1946 election, following Chacón et al. (2011), to capture *political competition*[3]; (iii) early-20th-century land disputes from LeGrand (1986) and land dispossession from Lopez-Uribe and Sanchez Torres (2024) to capture *past grievances related to land conflict*; and (iv) the Liberal vote share in 1946 to capture a *partisan repression* channel. $\mathbf{G}_m$ includes geo-demographic controls: log municipal population (1964), total agricultural land area (1960), distance to the department capital, distance to the national capital (Bogotá), altitude, and the ruggedness index. All variables are measured at the municipal level and mapped to the 1945 Historical Geographic Unit (HGU), the earliest harmonized geography used in the regressions.

I begin with the basic benchmark regression measuring the effect of coffee cultivation on late-period violence intensity. In Equation (1), Violence_m is the count of intentional deaths caused by *La Violencia* in 1962, and Coffee_m is 1945 municipal coffee production measured in standard 62.5 kg sacks. Results are presented in Table 1. Column (1) estimates the bivariate relationship between violence and coffee cultivation; Column (2) adds the controls from the competing theories; Columns (3) and (4) add geographic and demographic controls and department fixed effects, respectively. The coffee coefficient β is stable across all specifications and statistically significant at the 1% level throughout. In terms of magnitude, a one–standard–deviation increase in coffee cultivation is associated with 5.5 additional violent deaths. Equally striking is the proportion of violence variation explained by coffee: in the bivariate specification (Column 1), $R^2 = 0.38$, while in the fully saturated fixed-effects specification (Column 4), $R^2 = 0.50$. This pattern recurs throughout the section and supports the first key message: coffee is the primary correlate of variation in conflict during *La Violencia*. Lastly, it is worth noting that the only competing theory consistently significant across all specifications is the Liberal vote share, consistent with localized studies discussed in Full paper.

These benchmark results are consistent with the hypothesis from the historical analysis: coffee intensity is the most informative predictor of late-period violence and thus the main explanation for variation in *La Violencia*. Below, I present a series of robustness checks to assess whether this result is sensitive to alternative specifications or threats to OLS estimation.

[3]The exact formula is 1 – |Liberal share – Conservative share|. Thus, if one party dominated the election, the measure is 0; if there was a tie, the measure is 1.

Table 1: Coffee Cultivation and Violent Deaths in 1962

	(1)	(2)	(3)	(4)
	Dependent variable: Violent deaths in 1962			
Coffee cultivation in 1945 (sacks)	0.000283***	0.000276***	0.000270***	0.000261***
	(0.000058)	(0.000061)	(0.000064)	(0.000067)
Revenues 1962		0.153*	0.036	-0.006
		(0.082)	(0.073)	(0.083)
Political competition		0.401	1.021	-0.295
		(0.775)	(0.824)	(0.643)
20th-century land conflict		0.709	0.375	-0.398
		(0.628)	(0.783)	(0.743)
Dispossession 1914–46		0.166*	0.139	0.068
		(0.092)	(0.098)	(0.099)
Liberal share		1.713***	1.987***	2.209***
		(0.598)	(0.713)	(0.705)
Geographic and demographic controls	*n*	*n*	*y*	*y*
Department FE	*n*	*n*	*n*	*y*
Observations	779	779	779	779
R-squared	0.379	0.390	0.405	0.499
HGU year	1945	1945	1945	1945

Notes: OLS estimates with robust standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

2.3 Mechanism: Bandits and Economic Rents

While the previous sections have established a robust relationship between coffee cultivation and the intensity of conflict, the mechanism driving this link remains to be clarified. Even if coffee-producing regions generated appropriable economic rents, it is still necessary to identify *who* the primary actors were in exploiting these rents and sustaining the violence. Were these conflicts driven by state forces, common farmers, partisan militias, or other groups?

As discussed in Section **??**, a distinctive feature of *La Violencia* in Colombia was the proliferation of armed bandit groups spanning both sides of the political spectrum. These groups emerged early in the conflict but persisted throughout its duration, becoming particularly influential in the late period. The historical analysis advanced the hypothesis that bandits were the key mediators linking coffee wealth to conflict intensity. The logic is straightforward: given the central role of coffee as a source of liquid wealth—not only in traditional coffee regions but

across Colombia—municipalities with high levels of cultivation provided a steady stream of lootable resources. These resources enabled bandit groups to sustain themselves and expand, even when facing the unified bipartisan government established in 1958 under the National Front.

This section tests two main hypotheses:

1. Bandits were disproportionately concentrated in coffee-producing regions during the late period of *La Violencia*.
2. Municipalities with an active bandit presence exhibited significantly higher levels of conflict intensity than otherwise similar municipalities.

Location of Bandits: To test the first hypothesis, I estimate the following specification, which mirrors the benchmark equation in Section 2.2 but replaces the dependent variable with measures of bandit activity:

$$\text{Banditry}_m = \beta \text{Coffee}_{m,1945} + \Gamma X_m + G_m + \delta_d + \varepsilon_m. \tag{2}$$

Here, Banditry_m is measured in several ways: (i) the number of known bandit leaders in 1962 from Policía Nacional de Colombia (1965); (ii) the size of their groups in 1962 from the same source; and (iii) alternative measures based on Guzmán et al. (1962) records for the total number of leaders and group sizes between 1948–1963. The key explanatory variable, $\text{Coffee}_{m,1945}$, is the same historical measure of coffee cultivation used in the baseline results, expressed in 62.5 kg sacks per municipality. The vector X_m includes the competing-theories controls from Section **??**, G_m captures geographic and demographic controls, and δ_d denotes department fixed effects. All regressions are estimated at the 1945 historical geographic unit (HGU) level.

Table 2 reports the results. Columns (1)–(4) estimate the effect of coffee cultivation on the number of bandit leaders in 1962 using progressively richer specifications: Column (1) is bivariate; Column (2) adds the competing-theories controls; Column (3) adds geographic and demographic controls; and Column (4) includes department fixed effects. Column (5) uses group size in 1962 as the dependent variable. Columns (6) and (7) replicate the analysis using alternative measures for period, 1948–1963.

The results provide strong evidence supporting the proposed mechanism. Across all specifications, the coffee cultivation coefficient is positive, highly significant, and remarkably consistent

Table 2: Coffee and Banditry Outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	# Bandit Leaders, 1962 (Revista)				Size, 1962	# Leaders, 1948–63	Size, 1948–63
Coffee cultivation (1945 sacks)	0.0000167***	0.0000164***	0.0000160***	0.0000157***	0.0002786***	0.0000094***	0.0002809**
	(0.000003)	(0.000003)	(0.000003)	(0.000003)	(0.000080)	(0.000004)	(0.000139)
Revenues 1962		0.0099**	0.0086	0.0022	-0.1421	-0.0115	-0.4277
		(0.0047)	(0.0057)	(0.0077)	(0.242)	(0.0132)	(0.522)
Political competition		-0.0471	-0.0128	-0.0674	-4.8720	-0.0735	-4.1044
		(0.0604)	(0.0622)	(0.0589)	(3.004)	(0.0792)	(2.739)
Land conflict (20th c.)		0.0414	0.0520	0.0491	4.1883	0.1723*	9.0484**
		(0.0487)	(0.0631)	(0.0700)	(2.809)	(0.0945)	(4.314)
Dispossession 1914–46		0.0114	0.0114	0.0102	0.2302	-0.0138	0.3480
		(0.0084)	(0.0092)	(0.0102)	(0.342)	(0.0121)	(0.509)
Liberal tradition		0.0646	0.0465	0.0897	1.3348	0.1689*	6.1751**
		(0.0621)	(0.0702)	(0.0703)	(3.009)	(0.0879)	(2.504)
Geographic and Demographic controls	*n*	*n*	*y*	*y*	*y*	*y*	*y*
Department FE	*n*	*n*	*n*	*y*	*y*	*y*	*y*
Observations	779	779	779	779	779	779	779
R-squared	0.254	0.261	0.271	0.299	0.135	0.279	0.181
HGU year	1945	1945	1945	1945	1945	1945	1945

Notes: OLS estimates with robust standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Columns (1)–(4) progressively add controls for bandit leaders in 1962. Column (5) reports results for bandit group size in 1962. Columns (6)–(7) report results using alternate source with alternate time period (1948–1963) for number of leaders and group size. All regressions are at the 1945 HGU level.

in magnitude for the 1962 leader counts. The coefficient remains large and significant when using group sizes as the outcome (Column 5) and under the alternative measures (Columns 6–7), confirming that the effect is not specific to a single data source.

The competing theories perform poorly in explaining the emergence or scale of banditry. Across Columns (1)–(5), none of the alternative hypotheses from the Colombian historiography are statistically significant, including the Liberal Party vote share, which had been the only competing theory showing any explanatory power in earlier sections. Interestingly, Liberal share becomes weakly significant only in the alternative long-period measures from *Tomo II* (Columns 6 and 7), which cover 1948–1963. This pattern aligns with the historical narrative: the Liberal repression channel was more relevant during the early period of *La Violencia*, when partisan targeting drove initial outbreaks of violence, but it loses explanatory power for late-period banditry after the 1958 National Front agreement unified the political elites.

Taken together, these results show that municipalities with higher historical coffee cultivation were systematically more likely to host bandit leaders and sustain larger bandit groups during *La Violencia*. These findings strongly support the hypothesized mechanism: coffee rents provided a steady, liquid resource base that enabled bandit groups to persist and escalate violence well into the late period, even as other channels of conflict waned.

3 Conclusion

This paper extends the history of economic bandits and armed groups further into the past, to the period of *La Violencia* in 1950s Colombia. The study finds a strong empirical relationship between the presence and size of bandit groups and Colombia's most lucrative natural resource before cocaine: coffee. The rise of the coffee industry was a distinctly twentieth-century phenomenon born during the First Globalization era. This commodity boom spurred large demographic shifts and widespread land colonization into a *new frontier* of coffee lands that had been of secondary importance throughout Colombian history. This frontier colonization fostered relatively equitable land distribution, which scholars have previously identified as a source of good institutions (Nieto Arteta, 1958; Nugent and Robinson, 2010). Yet, this paper finds that it was precisely in this new coffee frontier where violence reached its greatest intensity during the 1950s. I argue that these areas contained not only the majority of these regions' lootable resources but also much of the country's total coffee wealth, explaining the persistence and strength of bandits in the new frontier. Moreover, the results demonstrate that the intensity of this mid-century conflict was entirely unrelated to nineteenth-century conflicts, which qualitative and quantitative evidence show were primarily political in nature. This challenges dominant views of persistence in Latin American violence.

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