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The Quiet Payoff: Mafia Electoral Support and Policy Inaction*

Alessio Carrozzo Magli ^{†‡} Giovanni Righetto[†] Antonio Schiavone[†]

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Abstract

Organised crime groups often deliver electoral support to politicians, yet how they are rewarded remains unclear. Using data from Sicilian municipalities (1992–2022), we show that narrowly won races by Forza Italia, Silvio Berlusconi’s party, coincide with sharp declines in the reallocation of confiscated mafia assets—but only in mafia-controlled areas. Exploiting historical variation in the mafia’s vote-buying capacity, we find that municipalities with stronger historical ties experience larger post-election declines, exclusively under Berlusconi’s governments. Instrumenting modern support with this proxy further reinforces the plausibly causal evidence that national authorities reward organised crime through policy inaction.

JEL CODES: *D72, D73, H11, K42, P16*

KEYWORDS: *Organised Crime, Mafia, Vote Buying, Corruption, Misallocation of confiscated assets, Political Economy*

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1 Introduction

Organized crime imposes substantial economic and social costs on democratic societies, ranging from lower GDP growth (Pinotti, 2015) to reduced institutional quality and social capital (Acemoglu et al., 2020; Alesina et al., 2019). One of the key mechanisms through which criminal organizations exert their influence is by engaging in electoral exchanges with political parties (Gambetta, 1993). Despite abundant evidence that mafias mobilise electoral support, we still know little about the precise rewards they extract – especially from central governments. This paper provides the first causal evidence that a national government can repay mafia vote buying by soft-peddalling a cornerstone anti-crime policy.

We rely on a simple probabilistic-voting framework (Carrozzo Magli et al., 2025) in which a party’s willingness to weaken already-enacted anti-mafia measures is the price of securing mafia-controlled votes, and the size of the concession rises with nationwide electoral competition. The Sicilian Mafia (*Cosa Nostra* or *Mafia* hereafter) offers an ideal setting. Historical evidence suggests that, during the Italian First Republic (1948-92)¹, the Mafia provided electoral support to the Christian Democratic Party (*Democrazia Cristiana*, hereinafter DC) in exchange for economic advantages, particularly in the construction sector (De Feo and De Luca, 2017). However, in the Second Republic, Mafia-aligned municipalities exhibited a shift in political allegiance, favoring Silvio Berlusconi’s party Forza Italia (FI) irrespective of the level of electoral competition (Buonanno et al., 2016).

We focus on a key policy tool introduced in the 1990s to curb organized crime: the post-seizure reallocation (*destination*) of confiscated mafia assets for social purposes. Judicial files and NGO reports confirm that when such reallocations are delayed or withheld, the original clans often regain control², converting bureaucratic inaction into a lucrative payoff. Importantly, while the judiciary is responsible for seizing and confiscating properties, the subsequent reallocation of assets falls under executive authority³. We therefore argue that inertia in reallocations constitutes a plausible, centrally administered reward for electoral collusion.

Empirically, we study Sicilian municipalities from 1992 to 2022. We first document vote manipulation in national majoritarian elections. In small towns—where buying a handful of ballots can tip the result—we observe a conspicuous spike in cases where the FI candidate wins by a sliver. Among larger municipalities, where stochastic variation in turnout still leaves some quasi-random sorting around the cutoff, a regression-discontinuity design shows that a razor-thin FI victory is followed by a sharp drop in post-election asset reallocations, amounting to between 0.55 and 0.85

¹The First Republic ended in the early Nineties after a mass judicial enquiry, *Mani pulite* (Clean hands) that brought to trial apical figures of most political parties. This resulted in a complete change of the political landscape with all the main parties being replaced by new ones.

²In the words of the Undersecretary of the Ministry of the Interior: "Our goal is to prevent the risk of such assets being reclaimed by organized crime"(Ferro, 2023).

³Since 2010, a government-appointed agency has overseen destinations. Prior to this, the process was even more directly managed by the executive. In fact, in 1989, Decree-Law No. 230 amended Law No. 575 of 1965. The decree stipulated that the Prefect would submit proposals for the allocation of assets to the Ministry of Economy and Finance, which would then issue its own decree — even if it differed from the proposals submitted.

standard deviations. The effect appears only in Mafia-plagued areas, whereas in non-Mafia municipalities a narrow win has no impact. Standard balance checks, a McCrary density test, and placebo “pre-trend” regressions reveal no discontinuity in the running variable, covariates, or asset policy *before* the election, reinforcing the interpretation that the observed post-election drop is driven by Mafia vote buying rather than pre-existing differences. To gauge the intensity of vote buying we turn to an alternative identification strategy based on a unique historical shock. We exploit the sharp decline in Christian Democratic votes after the Mafia withdrew its electoral support in 1987 as a proxy for historical vote-buying capacity⁴. The Christian Democratic Party (DC) had long benefited from Mafia-backed electoral mobilization, but this alliance fractured when DC leaders failed to intervene in favor of Cosa Nostra during the Palermo Maxi Trial.⁵ In response, the Mafia leadership ordered a strategic shift of votes away from DC, leading to a sudden and well-documented drop in their vote share. The resulting decline in DC support provides a cross-sectional proxy for each area’s latent vote-buying capacity. Remarkably, our quantitative estimates of vote buying closely align with those of Arlacchi (2010) and De Feo and De Luca (2017).

We interact this pre-1987 vote loss with an indicator for Berlusconi-led legislatures in a reduced-form panel regression that includes a battery of fixed effects. The estimates show that within Mafia-plagued areas, places with larger historical DC vote losses experience disproportionately larger post-election cuts in asset reallocations, but only when Berlusconi is in power. Rejoining the two channels (the extent of vote buying and its economic reward), we instrument current Forza Italia vote shares with our proxy of vote-buying capacity. By isolating the portion of FI support driven by Mafia vote-buying capacity, the IV estimates provide a cleaner causal link between that capacity and the subsequent policy reward. Finally, we find no evidence that our national-level measure of vote-buying capacity explains local-level economic concessions—such as public procurements in construction or waste disposal—reinforcing the distinctiveness of the national payoff channel we identify.

This paper offers a multifold contribution addressing several strands of the literature. First, we derive and test novel predictions from the probabilistic-voting model in Carrozzo Magli et al. (2025), situated within the tradition of Lindbeck and Weibull (1987) and its extensions to organised-crime settings by Acemoglu et al. (2013) and De Feo and De Luca (2017). In those frameworks, incumbents may tolerate coercion in swing districts (Acemoglu et al.) or parties compete à la Bertrand for mafia support under proportional representation (De Feo and De Luca). Carrozzo Magli et al. (2025) show that in the presence of lobbies, stronger electoral competition can *worsen* policy quality and *depress* participation as parties lean more heavily on lobby-provided votes. Specialising

⁴Throughout the paper, we use the term “vote buying” broadly to denote any Mafia-driven mobilisation of votes in favour of a party. We remain agnostic about the concrete tactics—cash payments, patronage promises, intimidation, and so forth—because our focus is on the electoral votes ultimately delivered, not on the specific method. A detailed investigation of those mechanisms is left for future work.

⁵The Maxi Trial (*Maxiprocesso di Palermo*) was a landmark criminal proceeding held in Palermo between 1986 and 1992 against the Sicilian Mafia. Based on years of investigation by Judges Giovanni Falcone and Paolo Borsellino, it prosecuted 475 defendants and secured hundreds of convictions, establishing in court for the first time the existence of Cosa Nostra as a unified criminal organization. The trial represented a turning point in Italian anti-mafia efforts, but also provoked violent retaliation from the Mafia, including the assassinations of Falcone and Borsellino in 1992.

the framework to the Sicilian Mafia, here we develop and take to the data three application-specific novel predictions: (i) the Mafia backs the party proposing the weaker anti-mafia stance; (ii) greater nationwide competition *widens* the cross-party gap in anti-mafia effort, with the colluding party cutting effort more sharply; and (iii) competition scales the size of the payoff (i.e., the policy concession), whereas the supply of mafia-delivered votes is anchored by exogenous capacity (e.g., territorial control) rather than by competition itself. Second, this work contributes to the empirical literature on mafia-related electoral fraud and vote coercion and the interplay between states and criminal organizations. While much has been said on mafia's complementary use of violence and bribery (Dal Bó et al., 2006) to influence policy (Alesina et al., 2019; Di Cataldo and Mastroiocco, 2022), mostly at the local level, fewer studies have focused on vote-buying as a lobbying instrument at the broader, national level. Building on the seminal work by Acemoglu et al (2013), De Feo and De Luca (2017) credibly show that during the Italian First Republic (1948-92) Cosa Nostra brought votes to Christian Democrats in Sicily when electoral competition from the Communist Party at the national level was more pronounced. The authors also offer suggestive evidence that the mafia obtained a significant advantage in the construction sector as a counterpart. Likewise, Buonanno et al (2016) show that -irrespective of electoral competition - during the Second Republic (1994-2013) Forza Italia tended to obtain higher vote shares in municipalities controlled by Sicilian mafia, although the other side of the deal was left unexplored.

To the best of our knowledge, we provide the first causal evidence of a national government rewarding an organised crime group's electoral support through systematic policy concessions. Specifically, we show that the misallocation of confiscated Mafia assets—an institutional decision under central government authority—coincided with electoral gains for the governing party in Mafia-controlled areas. In doing so, we uncover a previously undocumented payoff channel that links organized crime not merely to local procurement, but directly to the national sphere of policymaking. Additionally, we demonstrate that votes become more valuable as electoral competition intensifies, evidenced by larger payoffs during politically contested periods.⁶ Finally, we also provide a plausible quantification of vote-buying capacity across Sicilian municipalities, improving upon previous studies that predominantly relied on qualitative (binary) indicators of mafia presence.

The rest of the article is organized as follows. Section 2 presents and solves the theoretical model. Section 3 describes the data and institutional background. Section 4 presents the empirical strategy and results. Concluding remarks follow.

⁶Aligning with our theoretical predictions, this might explain why mafia electoral involvement was apparently constant during the Second Republic, while it depended on electoral competition during the First one (where anti-mafia policy was not under deal as mafia was not even recognized as a crime). On the difference between the First and Second Republic, the Italian anti-mafia prosecutor Nicola Gratteri explains that "Politics has grown weaker than the mafia. Thirty or forty years ago, mafiosi would approach politicians seeking favors; today, it is often politicians who seek out and align themselves with the mafia."(Gratteri, 2022)

2 Theoretical Framework

We build on the micro-founded two-stage probabilistic-voting model in Carrozzo Magli et al. (2025), which analyses party competition under proportional and majoritarian systems with heterogeneous lobby control across constituencies.⁷ In this paper, we specialise that framework to the case in which the lobby is the Sicilian Mafia and derive two testable predictions specific to this application that were not investigated empirically in that paper. The remainder of this section restates only the elements of the model needed to develop these new predictions and to connect them to observables; full microfoundations are provided in Carrozzo Magli et al. (2025).

For the sake of simplicity, each district k is populated by a mass of voters normalized to 1 and penetrated by an independent clan. In the first stage, parties A and B simultaneously commit to their anti-mafia policy q_{Ak} and q_{Bk} for each district k , aiming to maximize their respective probabilities of winning the election:

$$\begin{cases} U_A = \Pr(A \text{ wins}), \\ U_B = \Pr(B \text{ wins}) = 1 - \Pr(A \text{ wins}), \end{cases} \quad (1)$$

where U_A and U_B represent the expected utilities of the two parties, i.e., public office rent is normalized to 1.

In the second stage, elections take place. Each mafia clan chooses the number of votes (m_k) to deliver (Acemoglu et al., 2013; De Feo and De Luca, 2017) to one of the parties (say, party A) in each district k , with the objective of minimizing its loss function:

$$\pi_k = -\Pr(A \text{ wins})q_{Ak} - \Pr(B \text{ wins})q_{Bk} - \frac{m_k^{\gamma_k}}{\gamma_k}, \quad (2)$$

where $\gamma_k > 1$ represents the convexity of the clans' cost function in terms of votes delivered; that is, a higher level of γ_k corresponds to higher costs of vote buying in district k .

Inspired by standard probabilistic voting models, parties commit to policies but take their ideological stance as given. This may capture other policies, unrelated to mafia, they cannot commit to (Lindbeck and Weibull, 1987; Acemoglu et al., 2013).

2.1 Proportional Electoral System

Based on the microfoundation of voters' decision derived in Carrozzo Magli et al. (2025), we make the following assumption.

Assumption 1. $\forall k$ and $i, j = A, B$, if $\gamma_k = 0 \implies \frac{\partial P(i \text{ wins})}{\partial q_{jk}} < 0 < \frac{\partial P(i \text{ wins})}{\partial q_{ik}}$.

Assumption 1 states that, in the absence of mafia electoral involvement, parties proposing stricter

⁷For notation, primitives, and equilibrium derivations, see Carrozzo Magli et al. (2025), Sections 2–3.

anti-mafia policies obtain more votes. In other words, individual voters prefer a government that is serious about fighting the mafia. As this effect might reasonably be nonlinear and different across electors of the two parties, we take a logarithmic function as summarized by the following assumption.

Assumption 2. The probability that party A wins the election is:

$$\Pr(A \text{ wins}) = \Pr \left(\sum_{k=1}^n m_k + \sum_{k=1}^n \alpha_k \ln(q_{Ak}) + \Delta V > \sum_{k=1}^n \beta_k \ln(q_{Bk}) \right), \quad (3)$$

where α_k (β_k) captures the sensitivity of party A(B)'s electors to anti-mafia policy and $\Delta V = \sum_{k=1}^n \Delta V_k^1 \sim U \left[-\frac{1}{2\phi}, \frac{1}{2\phi} \right]$ captures the ideological advantage of party A (Acemoglu et al., 2013). Accordingly, the payoff functions can be rewritten as:

$$\begin{cases} U_A = \frac{1}{2} - \phi \left(\sum_{k=1}^n \beta_k \ln(q_{Bk}) - \sum_{k=1}^n m_k - \sum_{k=1}^n \alpha_k \ln(q_{Ak}) \right), \\ U_B = \frac{1}{2} + \phi \left(\sum_{k=1}^n \beta_k \ln(q_{Bk}) - \sum_{k=1}^n m_k - \sum_{k=1}^n \alpha_k \ln(q_{Ak}) \right), \\ \pi_k = (q_{Ak} - q_{Bk}) \left[\frac{1}{2} - \phi \left(\sum_{k=1}^n \beta_k \ln(q_{Bk}) - \sum_{k=1}^n m_k - \sum_{k=1}^n \alpha_k \ln(q_{Ak}) \right) \right] - q_{Ak} - \frac{m_k^{\gamma_k}}{\gamma_k}. \end{cases} \quad (4)$$

2.1.1 Game Solution

In the second stage, clans maximize their payoff function by choosing the appropriate number of votes m_k to deliver to their preferred party. Differentiating π_k with respect to m_k yields a system of k first-order conditions. These can be solved with respect to m_k to obtain the clans' best response to the anti-mafia policies proposed by the two parties in district k :

$$\bar{m}_k = [\phi(q_{Bk} - q_{Ak})]^{\frac{1}{\gamma_k - 1}}. \quad (5)$$

Substituting \bar{m}_k into the payoff functions of the two parties, one gets:

$$\begin{cases} U_A(\bar{m}_k) = 1 - \phi \left(\sum_{k=1}^n \beta_k \ln(q_{Bk}) - \sum_{k=1}^n [\phi(q_{Bk} - q_{Ak})]^{\frac{1}{\gamma_k - 1}} - \sum_{k=1}^n \alpha_k \ln(q_{Ak}) \right), \\ U_B(\bar{m}_k) = \phi \left(\sum_{k=1}^n \beta_k \ln(q_{Bk}) - \sum_{k=1}^n [\phi(q_{Bk} - q_{Ak})]^{\frac{1}{\gamma_k - 1}} - \sum_{k=1}^n \alpha_k \ln(q_{Ak}) \right). \end{cases} \quad (6)$$

Maximizing these expressions with respect to q_{Ak} and q_{Bk} and substituting back into the expression for \bar{m}_k , we find the equilibrium anti-mafia policies and the number of votes allocated in each district:

$$\begin{cases} q_{Ak}^* = \alpha_k \frac{(\gamma_k - 1)^{\gamma_k - 1}}{\phi(\beta_k - \alpha_k)^{2 - \gamma_k}} = \frac{\alpha_k(\gamma_k - 1)}{\phi m_k^{2 - \gamma_k}}, \\ q_{Bk}^* = \beta_k \frac{(\gamma_k - 1)^{\gamma_k - 1}}{\phi(\beta_k - \alpha_k)^{2 - \gamma_k}} = \frac{\beta_k(\gamma_k - 1)}{\phi m_k^{2 - \gamma_k}}, \\ m_k^* = (\gamma_k - 1)(\beta_k - \alpha_k). \end{cases} \quad (7)$$

2.1.2 Results

The model yields three predictions. (i) The Mafia supplies electoral support to the party that proposes the weaker anti-mafia policy. (ii) For constituencies with $\gamma_k < 2$, an increase in national electoral competition ϕ reduces both parties' optimal anti-mafia effort: $\partial q_A^*/\partial\phi < 0$ and $\partial q_B^*/\partial\phi < 0$. (iii) Competition depresses the colluding party's effort more than its rival's, widening the cross-party gap in anti-mafia policies; if B is the colluding party, then $\partial(q_B^* - q_A^*)/\partial\phi > 0$.

Thus, greater electoral competition implies an aggregate deterioration in anti-mafia effort. Moreover, the level of competition does not alter which party the Mafia supports (nor the capacity driving that support), in line with Buonanno et al. (2016). We test these predictions and in Section 4.

2.2 Majoritarian Electoral System

By definition, the ideological advantage of party A in the country is the sum of the ideological advantages in each district $\Delta V = \sum_{k=1}^n \Delta V_k^1$. Without loss of generality, let n be an odd number and assume that $\Delta V_k^1 > \frac{1}{2}$ for all districts between 1 and $\frac{n}{2} - 1$, and $\Delta V_k^1 < -\frac{1}{2}$ for all districts between $\frac{n}{2} + 1$ and n . In other words, the first (last) $\frac{n}{2} - 1$ districts will always vote for party A (j). Conversely, assume that in district $\frac{n}{2}$, it holds $-\frac{1}{2} < \Delta V_k^1 < \frac{1}{2}$, and in particular $V_{Ak} \sim U\left[-\frac{1}{2\phi}, \frac{1}{2\phi}\right]$. In plain words, the only swing district is the $\frac{n}{2}$ -th district, such that (dropping the district subscript for the sake of a clearer exposition) the payoff function from equations (4) modifies as follows:

$$\begin{cases} U_A = 1 - \phi(\beta \ln(q_B) - m - \alpha \ln(q_A)), \\ U_B = \phi(\alpha \ln(q_A) - m - \beta \ln(q_B)), \\ \pi = (q_A - q_B)[1 - \phi(\beta \ln(q_B) - m - \alpha \ln(q_A))] - q_A - \frac{m\gamma}{\gamma}. \end{cases} \quad (8)$$

The game solution coincides with that of equations (7) for district $\frac{n}{2}$. However, it shall hold that $m_k^* = 0 \forall k \neq \frac{n}{2}$, i.e., in all other districts there will not be vote buying and the intensity of anti-mafia policy will be maximized. Briefly, under a majoritarian system, vote buying will be limited to swing districts, whereas under proportional representation, it will occur in all mafia-plagued districts.

3 Data and Institutional Background

3.1 A potential reward to Mafia - Misallocation of confiscated assets

Our theoretical framework posits that politicians seeking electoral support from the mafia may offer concessions by strategically reducing the enforcement of anti-mafia policies—particularly when electoral competition intensifies. Rather than enacting direct rollbacks, such concessions may occur through low-saliency channels that escape public scrutiny. One such policy lever is the reallocation of confiscated mafia assets.

Although the confiscation of assets has been under judicial oversight since the Rognoni–La

Torre Law (1982)—which first enabled the state to seize mafia-owned property—responsibility for the reallocation (or *destinazione*) of these assets has historically fallen under the government’s purview. As early as 1989, Decreto Legge No. 230 granted prefects the authority to propose reallocations, which the Ministry of Economy and Finance could enact by decree, independently or in divergence from the original proposal (Nazzaro, 2021). Furthermore, the Rognoni–La Torre Law already included early provisions for asset reallocation, although in vague terms.

The process gained greater institutional clarity and civic momentum in the 1990s. In 1996, Law No. 109, championed by the NGO *Libera*, institutionalized the social reuse of mafia assets, enabling transfers to municipalities and civil society organizations for public interest purposes (Martone et al., 2020; Boeri et al., 2024). Eventually, in 2010, the creation of the *Agenzia Nazionale per l’Amministrazione e la Destinazione dei Beni Sequestrati e Confiscati alla Criminalità Organizzata* (ANBSC) centralized and formalized the reallocation process. The ANBSC plays a crucial intermediary role in the reallocation process. Once the judicial phase concludes, the ANBSC assesses both structural and contextual criminal factors to determine the future use of each confiscated property. According to its institutional mandate, the agency must prioritise social reuse, aiming to compensate and regenerate communities historically infiltrated by organised crime. In practice, this means evaluating whether a property should serve institutional functions (e.g., for law enforcement) or be reallocated to municipalities or NGOs for social purposes—such as educational centres, shelters, or youth programs—typically managed by civil society organisations. However, the reallocation process is often protracted. Bureaucratic delays, limited municipal capacity, and a lack of political will can result in properties remaining vacant for years, undermining the symbolic and practical impact of the policy. Even when local governments express interest, the ANBSC frequently demands detailed project proposals and cost estimates before granting access—effectively raising the administrative burden on the reuse process (Biagi, 2025). While ANBSC is the most visible actor in contemporary practice, governments long held the power to shape asset destinations—a capacity that can be wielded to subtly reward mafia cooperation by delaying or obstructing reallocation. Our hypothesis builds on this institutional nuance: by leveraging bureaucratic opacity and inertia, politicians can defer or mismanage asset reuse in ways that indirectly benefit organized crime, while avoiding public scrutiny and the political fallout of overt policy concessions. Most citizens do not observe the detailed administrative steps taken (or omitted) to ensure that confiscated properties are promptly repurposed for civic benefits. Consequently, inaction on reallocation is far less visible than directly weakening police operations or dismantling anti-mafia laws. Yet, this failure to finalize reassignments leaves the assets idle or vulnerable to mafia infiltration, essentially subverting the confiscation’s intended punitive effect. According to the non-profit organization *Libera*⁸, such

⁸*Libera. Associazioni, nomi e numeri contro le mafie* (commonly referred to as *Libera*) is an Italian non-governmental organization founded in 1995 with the mission of combating organized crime through civic engagement, education, and advocacy. One of its core activities is promoting the social reuse of confiscated mafia assets, ensuring that these properties are repurposed for community and social benefit rather than falling back under criminal control. *Libera* played a key role in the passage of Law No. 109/1996, which institutionalized the redistribution of confiscated assets for public interest. The organization operates nationally and internationally, collaborating with civil society

destinations deliver a strong blow to mafia interests, because returning confiscated assets to civic or charitable purposes strikes at the very heart of a mafia clan’s business model: the assets cease to generate *illicit income* while the organisation simultaneously loses the visible *territorial foothold* that signals power to local residents. Recent evidence confirms that it is this *reallocation*—rather than confiscation alone—that undermines criminal influence. Biagi (2025) shows that in neighbourhoods surrounding reassigned properties high-school drop-out rates fall, while surveys register a shift in beliefs toward the view that the state, not the mafia, ultimately controls the territory and the Mafia can, in fact, be defeated. In a complementary study, Boeri et al. (2024) find that residential prices decline upon confiscation but rebound once a property is formally reassigned, implying that market participants regard successful destination, rather than seizure, as the moment the mafia’s local grip is truly weakened—with similar conclusions reached by Calamunci et al (2023). Our premise is that a government seeking mafia support has an incentive to slow or halt the reallocation process in strategic ways, effectively allowing criminal organizations to reassert *de facto* control over seized properties. In the empirical analysis that follows, we leverage detailed data on how confiscated assets were handled in Sicilian municipalities. We posit that systematic shortfalls in reallocation outcomes can be a strategic choice by politicians to grant the mafia policy concessions while avoiding the more noticeable political costs that a direct rollback of anti-mafia laws would entail.

Measuring the Misallocation of Confiscated Assets. To empirically assess whether politicians strategically misallocate confiscated mafia assets, we construct a continuous indicator that captures the extent to which confiscated properties are reassigned for social use. The core of this measure is based on the *share of destinations over residual confiscations* in a given period. Instead of using a binary approach, which would obscure differences in the scale of misallocation, we develop an index ranging from -1 to 1 , allowing us to distinguish between varying degrees of reallocation success or failure.

The index is estimated at the municipality-legislature level, meaning that confiscations and destinations are aggregated over the full time period between elections⁹. The positive interval of the index is defined as the share of destinations over the residual stock of confiscations—that is, all the properties that had already been confiscated but had not yet been reallocated at the time the government took office. The baseline case, where the residual stock of confiscations is zero and no destinations can occur in a given period ($0/0$), is assigned a value of zero, treating municipalities with no activity as neutral cases. The negative interval of the index captures cases where confiscations occurred, but no destinations were made. In these instances, the index takes values between -1

groups, educational institutions, and policymakers to strengthen anti-mafia efforts.

⁹Since assets destination is managed by a government agency, an ideal approach would be to aggregate the data by government term. However, when a government is replaced without new elections, we would lose variation in vote shares, which is crucial for analyzing vote-buying mechanisms. For our purposes, when focusing on Berlusconi-led governments, approximating government terms as legislative periods is reasonable, as in two instances Berlusconi’s governments were replaced by technical governments for periods of about one year each.

and 0, approaching -1 as the volume of unallocated confiscations increases. To capture the idea that failing to allocate a large number of confiscated assets represents a more severe policy failure, we use an inverse logarithmic transformation, ensuring that larger backlogs of confiscations receive progressively greater penalties. The function $-1 + \frac{1}{\log(x+2)}$ is monotonically increasing in x , meaning that as residual confiscations grow, the index moves closer to -1 .¹⁰

This allows us to differentiate between minor and severe failures in reallocation: for example, a situation where one confiscated property remains unassigned (0/1) is treated as a relatively small policy failure, whereas a situation where a hundred confiscated properties remain unassigned (0/100) is treated as a much greater failure. By incorporating the intensity of misallocation, rather than treating all non-reallocation cases as equally severe, our measure better captures strategic political behaviour.¹¹

Formally, if a given municipality i has a residual stock of confiscated assets (*Residual Confiscations*, Res.Conf._i) and a total number of reallocated assets, Destinations_i over a given legislative period t , our *Relative Destinations Index* is defined as:

$$\text{Rel. Destinations Index}_{it} = \begin{cases} 0, & \text{if Res.Conf.}_{it} = 0 \text{ and Destinations}_{it} = 0, \\ \frac{\text{Destinations}_{it}}{\text{Res.Conf.}_{it}}, & \text{if Res.Conf.}_{it} > 0 \text{ and Destinations}_{it} > 0. \\ -1 + \frac{1}{\log(\text{Res.Conf.}_{it}+2)}, & \text{if Res.Conf.}_{it} > 0 \text{ and Destinations}_{it} = 0. \end{cases} \quad (9)$$

This approach allows us to exploit variation in the data that would otherwise be lost. Furthermore, by relying on a continuous rather than a binary measure, we avoid arbitrary thresholds and obtain a more nuanced view of how governments manage the reallocation process. If political actors systematically delay or obstruct the destination of confiscated assets, this should be reflected in persistent declines in our reallocation index—particularly when electoral incentives make rewarding mafia support advantageous. The index thus provides a comprehensive measure to test our hypothesis while capturing the full informational content of the data.

Mafia presence

Similar to seminal papers studying the electoral involvement of Sicilian Mafia (Buonanno et al., 2016; De Feo and De Luca, 2017), we gather data on mafia geographical distribution from two main

¹⁰The inclusion of +2 inside the logarithm prevents undefined values at 0 and ensures that even for small numbers of unallocated confiscations, the index remains strictly below zero.

¹¹Our preferred index distinguishes minor from severe reallocation failures—something the crude ratio cannot do. Nonetheless, all main regressions are re-estimated with that raw ratio as the outcome (Online Appendix OA.2); coefficients remain similar, but in the IV they are less precisely estimated. Similarly, results are qualitatively unaffected when the outcome variable is replaced with a dummy taking value one if at least one property has been reallocated during legislature t and zero otherwise. As such dummy would be zero in units never exposed to confiscations, we also control for the number of confiscated properties that had not yet been destined, as well as restrict the sample to those observations where the latter indicator is positive (Online Appendix OA.2).

Table 1: Summary Statistics

Majoritarian Dataset (municipalities)	Obs	Mean	Std. Dev.	Min	Max
Rel. Destinations Index	2115	-.102	.415	-.851	1
FI votes	2845	3085.715	8257.93	8	212656
FI majority	3136	.764	.425	0	1
FI mayor	3136	.130	.336	0	1
Mafia presence	3136	.669	.470	0	1
Proportional Dataset (municipalities)					
FI mayor	3,308	0.110	.309	0	1
Drop DC (1979-87) * Berlusconi govt.	1,413	0.951	2.906	-10.989	14.814
Share of public budget devoted to constructions	2,439	0.076	0.046	-0.028	0.567
Share of public budget devoted to waste disposal	2,439	.123	.072	0	.777
Proportional Dataset (mandamenti)					
Rel. Destinations Index	1,420	-0.110	0.407	-0.854	1
Share Forza Italia (1994-2001) * Berlusconi govt.	1,413	8.413	12.449	0	41.886
Drop DC (1979-87) * Berlusconi govt.	1,413	0.951	2.906	-10.989	14.814
Drop DC (1979-87) * Electoral competition	942	-0.085	0.296	-1.738	1.289
Municipalities dissolution	1,570	.148	.356	0	1
Mafia murders	1,570	.608	.488	0	1
Share of public budget devoted to constructions	785	.079	.035	.001	.181
Share of public budget devoted to waste disposal	785	0.128	0.060	0	.429
Proportional Dataset (mafia vs non mafia mandamenti)					
Rel. Destinations Index (mafia)	702	-.114	.418	-.854	1
Rel. Destinations Index (non mafia)	576	-.101	.427	-.822	1

sources. Specifically, we create a dummy for mafia presence equal to 1 for municipalities where either the Italian military police (Comando Generale dell’Arma dei Carabinieri, 1987) or the researchers of the University of Messina (Centro Studi e Documentazione sulla Criminalità Mafiosa, 1994) -or both- found signals of Cosa Nostra activity (Figure G.1). Crucially for our analysis, mafia vs non mafia areas are characterized by pretty similar average values of our Relative Destinations Index (Table 1).

Majoritarian electoral system

First, we focus on voting outcomes for national elections that adopted a majoritarian system. In the national elections held in 1994, 1996, 2001, and 2018, members of the Chamber of Deputies were selected in part through a first-past-the-post system within their electoral district, where the candidate with the highest number of votes won, regardless of whether they obtained an absolute majority. This electoral mechanism makes majoritarian races particularly valuable in the context of vote buying, as securing a narrow victory in a single-member district directly translates into a guaranteed parliamentary seat, irrespective of the overall vote share obtained by the party at the national level. This means that even a small number of strategically placed votes can be decisive, increasing the incentives for electoral collusion between politicians and organized crime.

During these elections, Italy was divided into a varying number of single-member districts for the majoritarian portion of the Chamber of Deputies elections. For the elections held in 1994, 1996,

and 2001, Italy had 475 single-member districts out of 630 total seats, with 52 districts in Sicily. Finally, in 2018, under the Rosatellum system, there were 232 single-member districts out of 630 total seats, with 28 districts in Sicily.

Across elections in the Berlusconi era, Sicily’s landslide results were pivotal to cementing a parliamentary majority for Forza Italia. For example, in 2001 the party swept every single-member district on the island—the only region in Italy to do so—providing a core of “safe” seats that helped transform a slim national lead into a governing majority (Buonanno et al., 2016). Victories of this scale made the handful of districts tipped by mafia-shifted votes especially valuable, creating a clear incentive for party leaders to reward the brokers who delivered them. Table 1 presents (among others) some summary statistics for Sicilian municipalities under the majoritarian system. In particular, we document the absolute number of votes received by FI candidates, a dummy indicating whether the local candidate received the majority of votes, a dummy for the mayor being affiliated with FI¹², the dummy for Mafia presence, and our index of Relative Destinations.

As we can see from Table 1, in 76% of Sicilian municipalities, the Forza Italia candidate received the majority of votes under the majoritarian system. However, only 12.9% have Forza Italia mayors, since at the local level there is a high diffusion of civic lists—local parties without a clear ideological position. Moreover, two-thirds of these municipalities are considered to be under Mafia influence.

Proportional electoral system

In the second part of the empirical analysis, we consider a *mandamento*-legislature panel covering the years between 1994 and 2022 -i.e., from the onset of Forza Italia to the present day, as at least 25% of the Parliamentary seats assigned at all national elections in that period were assigned through a proportional electoral system. *Mandamento* was an administrative division in the Kingdom of Italy (1861-1946). At the time, Sicily had about 360 municipalities and 160 *mandamenti*, meaning each *mandamento* comprised two or three municipalities on average. We adopt *mandamenti* as main unit of observation as municipalities due to the plausible presence of geographic spillovers across municipalities. This is partly due to the small average dimension of Italian municipalities. Most important, since the Sicilian mafia’s origins date back to the Kingdom of Italy’s early years (Buonanno et al., 2015), the earliest mafia groups recognized these existing administrative boundaries (and not municipalities) to delineate their territorial influence. Nonetheless, we remark that the analysis at the municipal level¹³ yields analogous results. For both the majoritarian and proportional systems, all the electoral data are collected from official sources (Ministero dell’Interno).

¹²Note that the mayor is elected from local elections, not national ones.

¹³See Online Appendix OA.3.

4 Empirical Analysis

4.1 Majoritarian electoral system: testing for vote manipulation

We begin by investigating whether vote buying systematically influenced close electoral outcomes under the majoritarian component of Italy’s national elections. In single-member districts, the candidate with the largest vote share wins the seat outright, but votes are tallied—and can be mobilised—at the municipality level. We therefore define an Electoral margin for each municipality–election cell as the vote-share gap between the first- and second-place candidates, provided that at least one is from Forza Italia.¹⁴ A positive margin indicates that the town is a net contributor to the party’s district-wide victory, whereas a negative margin implies it "owes" votes that must be offset elsewhere.

Focusing on the municipal margin is also observationally realistic: a central government that wishes to reward its criminal partners cannot easily observe whether multiple clans coordinated across the entire district, but it can see which individual municipalities flipped into Forza Italia’s column. Rewarding the visible contributors—those just above zero—is thus the simplest, least information-intensive strategy. Accordingly, vote buying should be most valuable in the neighbourhood of zero, where a modest infusion of illicit votes can turn a municipality from net debtor to net contributor and, in expectation, secure a post-electoral payoff.

Bunching approach. To detect whether there is an excess clustering of municipalities *just above* the cutoff, we borrow from the bunching techniques common in public economics (Kleven, 2016). Unlike the classic tax-kink settings for which bunching methods were devised, municipal vote totals are subject to substantial random noise—turnout shocks, invalid ballots, and pockets of genuine voter autonomy all limit how precisely even a coordinated mafia can “target” the threshold. Consequently, any excess mass we identify should be viewed as descriptive evidence of purposeful manipulation, not as a stand-alone causal estimate. We employ the bunching exercise as a visual, anecdotal check that vote shifting is indeed present before moving on to research designs that quantify its policy consequences in a plausibly causal way.

In practice, we bin the *Electoral margin* in intervals of 0.5 percentage points, and we exclude a ± 2.5 percentage point window around zero when estimating a flexible polynomial that captures the *counterfactual* smooth distribution of margins. Comparing the observed number of municipalities within this omitted window to the predicted polynomial values, we measure any “excess mass” that indicates suspiciously frequent narrow wins for Forza Italia.

¹⁴We restrict the sample to municipalities in which the Forza Italia candidate places first or second.

Figure 1: Bunching - Full sample

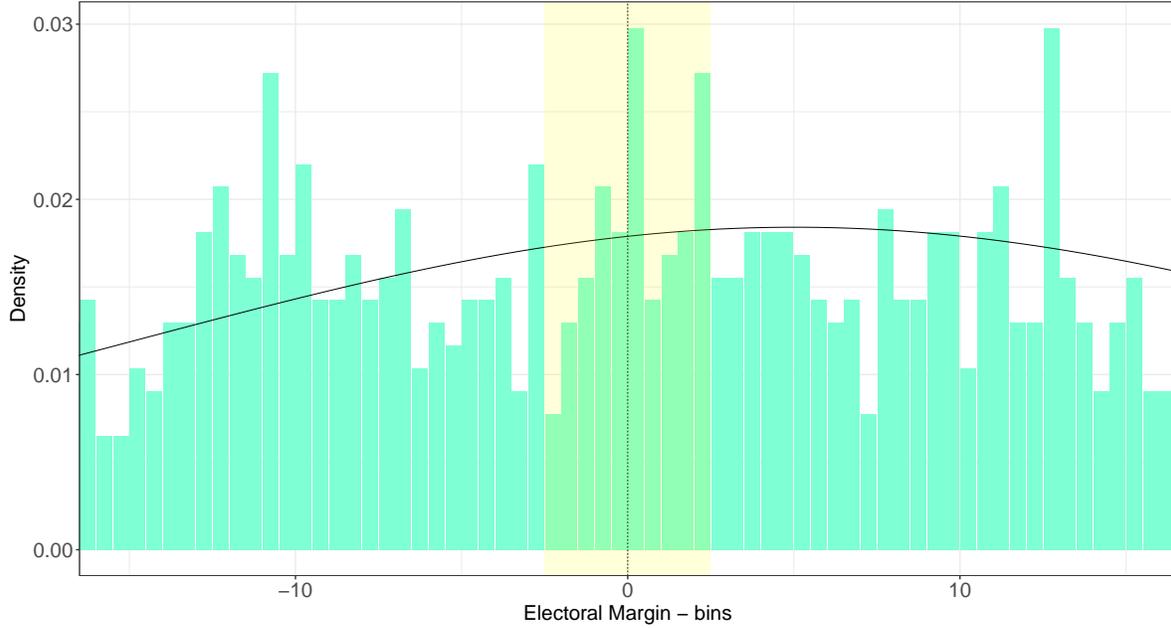
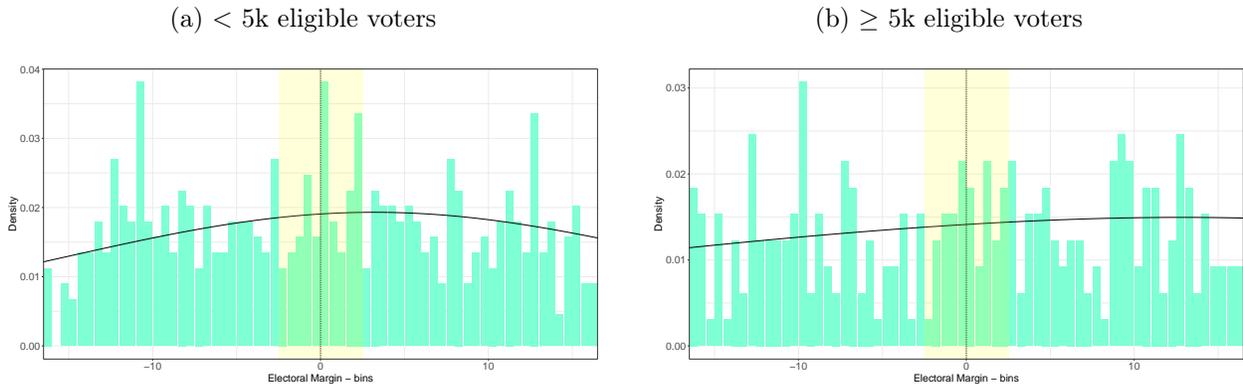


Figure 1 presents the bunching estimates for the full sample. We observe a clear spike in the margin's density just above zero, consistent with strategic vote-buying delivering municipalities into narrow net contributors. Splitting the sample by the number of eligible voters (above or below 5,000) reveals that the spike is substantially larger in *smaller* municipalities: we estimate a roughly 30% excess mass in the bin(s) just above zero. In larger municipalities, the excess mass is closer to 11%—still indicative of manipulation, but accompanied by a symmetric spike just below zero. This suggests that while the Mafia may attempt to tip local outcomes in populous cities, the unpredictability of higher voter counts means they sometimes fail, producing narrowly negative margins. By contrast, smaller towns are easier to manipulate deterministically.

Figure 2: Bunching by electorate size



Overall, the bunching patterns offer suggestive evidence that mafia-driven vote shifts nudge many municipalities just over the zero margin, converting them from net “debtors” to net contributors for Forza Italia. In larger towns the spike is smaller and on both sides of the cutoff—consistent with the idea that influencing outcomes where thousands of ballots are cast is harder, so some attempts fall short and leave negative margins as well. We believe this incomplete (rather than deterministic) sorting around the cutoff preserves enough randomness for empirical leverage. In Section 4.2 we show how that residual variation—focusing on close races in municipalities above our size threshold—forms the basis for the regression-discontinuity strategy that follows.

Interpreting the RDD despite manipulation. Evidence from our bunching analysis shows manipulation near the cutoff, especially in smaller towns where vote buying is more deterministic. While this sorting in the running variable would normally cast doubt on a standard RD design, we posit that in our setting it does not invalidate a meaningful RD approach — in fact, it strengthens the claim that *vote buying* is taking place. We elaborate on five key points:

1. *Manipulation as Evidence of Vote Buying.* In the absence of bunching near the threshold, there would be little evidence that the mafia systematically shifted votes in swing municipalities. Observing a suspicious surplus of cases just above zero is consistent with the mafia strategically delivering enough votes to push Forza Italia into a narrow victory.
2. *Partial Rather Than Perfect Sorting.* While vote buying can shift many smaller towns’ margins just above zero, it does not ensure success in larger municipalities, where the spike is less pronounced and mirrored by a smaller mass just below zero. This partial control implies residual randomness around the cutoff, retaining the quasi-experimental variation that an RDD design requires.
3. *Effect Identified Only Within Mafia Municipalities.* Crucially, the effect of a narrow Forza Italia win on confiscated-asset reallocation appears *only* in municipalities under mafia influence. In non-mafia areas, there is no discontinuity at the threshold, suggesting that vote buying—and thus any “reward” in the form of reduced asset allocations—plays no role there. By splitting the sample into mafia vs. non-mafia municipalities, we compare structurally similar groups within each subset rather than mixing fundamentally different locales.
4. *Comparability around the threshold.* To further solidify our RDD design, we conduct several checks:
 - *Excluding Smaller Municipalities:* Because bunching is particularly pronounced in towns below 5,000 voters, we exclude these cases in robustness checks, mitigating the heaviest manipulation. This still leaves sufficient variation in larger municipalities, where sorting around the threshold remains plausibly random.
 - *Balance Tests:* We confirm there are no significant jumps in other municipality-level covariates (e.g., population density, demographics) at the threshold (Table 4). This

suggests no major pre-existing differences between barely-won and barely-lost towns aside from the vote outcome itself.

- *Pre-Treatment Outcome:* In Table 3 we verify that differences in confiscated-asset reallocation appear *after* the election, not before it, implying the observed discontinuity is unlikely to stem from prior trends.
- *McCrary Test:* Finally, running a McCrary test on our sample shows no significant discontinuity exactly at zero. Thus, any partial sorting that remains does not fully eliminate the quasi-random variation crucial for an RDD approach.

5. *Interpreting the Coefficient as a Vote-Buying Reward.* Our outcome—the national government’s (in)action on reallocating confiscated assets—is, by construction, a costly weakening of anti-mafia policy; no municipality gains electorally from fewer social projects, nor do politicians have ideological incentives to stall a celebrated anti-crime measure. Hence, a systematic drop in reallocations *only* where a Forza Italia candidate wins by a handful of mafia-supplied votes is hard to rationalise except as a deliberate payoff. Crucially, electoral manipulation occurs at the *municipal* level, whereas the non-allocation decision is taken in Rome, making it implausible that a single, unobserved local trait could drive both. Any latent characteristic powerful enough to drive both would need to influence highly local vote swings *and* a central government’s administrative choices in the same direction. The most parsimonious interpretation of the post-election discontinuity is therefore a centrally orchestrated reward for mafia-delivered votes rather than an artefact of omitted variables.

In sum, the presence of bunching near the threshold indicates that vote buying *is* occurring, but we posit it does not negate an RDD approach. Restricting the sample to larger towns, focusing on mafia-affected areas, and validating balance/pre-trend checks collectively ensure that enough quasi-randomness remains at the cutoff to identify the causal effect of narrowly winning on the reallocation of confiscated mafia assets. In the next section, we formalize this intuition by estimating how a narrow Forza Italia win affects the destination of confiscated mafia assets.

4.2 Regression Discontinuity Design

Although only the district-wide result determines who becomes MP, we argue that the municipality is the natural unit at which any post-election reward would be delivered – and thus that the relevant discontinuity lies in the municipal margin. First, as Italy’s single-member districts aggregate several distinct Mafia territories, rewarding at the municipality—rather than district—level is the more credible equilibrium. Each district in our period contains either two or three *mandamenti*—the historical areas of influence of separate Mafia “families”—so district-wide coordination is neither obvious nor directly observable. Second, even assuming coordination takes place, a national cabinet cannot observe behind-the-scenes tactics; it simply sees individual towns that either contribute a surplus of votes to the district tally or run a deficit. With such *imperfect information* the government

cannot tell whether a deficit reflects a deliberate, district-wide strategy (perhaps the town was too costly to swing) or mere free-riding by a family that exerted little or no effort. Rewarding every municipality inside a winning district would therefore be both incentive-incompatible and fiscally wasteful: it would compensate free-riders and inflate the cost of the bargain. Conditioning pay-offs on the *observable* municipal margin—rewarding clear net contributors but not vote-deficit towns—minimises that cost while remaining implementable with the limited information available to central decision-makers. For these reasons, the discontinuity we exploit is defined at the municipality rather than the district level.

Our discontinuity design captures the local effect of *barely* winning, yet we do not claim that rewards stop at the cutoff. A landslide win should plausibly attract an even larger payoff. The RDD is valuable because it sidesteps the identification problem that very large margins are mechanically correlated with other municipal traits; however, by construction, it can only capture the *extensive margin* effect. Appendix B extends the analysis beyond the cutoff and documents a clear, positive association between a municipality’s net vote contribution to its district and the subsequent shortfall in asset reallocations. Two implications follow: (i) higher victory margins are associated with larger pay-off, i.e. rewards are not confined to the immediate neighbourhood of zero¹⁵, and (ii) the municipality—not the district—is the unit at which rewards are allocated, reinforcing our choice of the municipal margin as the running variable.

Concretely, we focus on municipalities where a Forza Italia candidate was either first or second, and compare outcomes around the cutoff. Formally, we estimate:

$$Rel.Destination_{i,t} = \beta_0 + \beta_1 ElectoralMargin_{i,t} + \beta_2 F.I.Win_{i,t} + \epsilon_{i,t}, \quad (10)$$

where $ElectoralMargin_{i,t}$ is the municipality-level difference in vote share between Forza Italia and its main competitor, and $F.I.Win_{i,t}$ equals 1 if Forza Italia secured more votes than the competitor in municipality i at time t . We estimate this specification using a linear fit in the running variable, following Gelman and Imbens (2019); results remain virtually unchanged when employing 2nd- or 3rd-degree polynomial fit instead. Standard errors are clustered at the municipality level to account for repeated observations of the same unit across elections, and the findings are robust to clustering at the electoral-district level.

Table 2 presents our main results. Column (1) includes all Sicilian municipalities, revealing a significant negative coefficient on $F.I.Win_{i,t}$: municipalities narrowly won by Forza Italia display lower *relative destinations* of confiscated assets in the post-election period. Columns (2) and (3) split the sample into mafia vs. non-mafia municipalities, demonstrating that the effect is fully driven by mafia-controlled areas; in non-mafia settings, the coefficient is small and statistically indistinguishable from zero. This pattern fits the notion that electoral support from the mafia is

¹⁵This exercise speaks to an intensive-margin pattern; because we cannot causally identify that effect in this setting, we treat it as corroborative evidence that larger margins elicit larger concessions. Section 4.3, which exploits proportional-system data, tackles the intensive-margin relation more formally.

Table 2: **Regression Discontinuity results**

	Relative Destinations Indicator			
	(1) Full Sample	(2) Mafia	(3) No Mafia	(4) Mafia & \geq 5k voters
Forza Italia Candidate Win	-0.165** (0.070)	-0.217*** (0.083)	-0.098 (0.129)	-0.349*** (0.090)
mean(Y)	-.10	-.09	-.11	-.11
std(Y)	.38	.38	.39	.41
Observations	1,042	664	378	351
No. Elections	4	4	4	4

Notes: Regression Discontinuity estimated coefficients. The running variable is the Electoral margin, the vote difference between a Forza Italia candidate and the main competitor at national elections under the majoritarian system. The dependent variable is Relative Destinations during the legislature following the election. RD regression estimated using a first-degree polynomial in the electoral margin, with bandwidths chosen to minimize the mean squared error. Column (1) includes all Sicilian municipalities, while columns (2) and (3) separate the sample into mafia and non-mafia municipalities. Column (4) further restricts to mafia municipalities with at least 5,000 eligible voters. The data cover the 1994–2018 period. Standard errors are clustered at the municipality level.*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

rewarded with reduced asset reallocations only where the mafia plausibly operates.

Column (4) reinforces this interpretation by restricting the sample to mafia municipalities with at least 5,000 *eligible voters*. We rely on the number of eligible voters as the relevant measure of local “size,” since these individuals are the ones whose votes matter for achieving a narrow margin. In smaller municipalities—where manipulation is more pronounced—our identification risks near-deterministic sorting. By focusing on larger areas, we maintain some residual randomness around the threshold. The coefficient in column (4) is both larger in magnitude and statistically precise, indicating that even after excluding heavily manipulated smaller towns, a narrow Forza Italia victory strongly predicts subsequent reductions in confiscated asset reallocations.

To further assess the validity of our RD design, we perform additional checks. First, Table 3 reports a placebo exercise using *lagged* relative destinations, capturing reallocation outcomes in the prior legislature. If narrowly won municipalities were fundamentally different, we would expect a parallel discontinuity *before* the election. Yet, across columns (1)–(4), the coefficient on $F.I.Win_{i,t}$ remains small and insignificant, ruling out pre-existing trends. Second, our balance tests in Table 4 confirm no significant jumps in other municipality-level characteristics—such as population density or demographics—at the threshold. Finally, the standard McCrary test in Table A.1 does not reveal any worrisome discontinuities in the running variable for the samples we exploit, further reinforcing the validity of our RD approach.

Table 3: **Regression Discontinuity results - Lagged outcome**

	Lagged Relative Destinations			
	(1) Full Sample	(2) Mafia	(3) No Mafia	(4) Mafia & > 5k voters
Forza Italia Candidate Win	-0.027 (0.075)	-0.037 (0.107)	0.000 (0.093)	-0.015 (0.183)
mean(Y)	-.041	-.03	-.06	-.03
std(Y)	0.41	0.42	.40	.44
Observations	782	498	284	264
No. Elections	4	4	4	4

Notes: Regression Discontinuity estimated coefficients. The running variable is the Electoral margin, the vote difference between a Forza Italia candidate and the main competitor at national elections under the majoritarian system. The dependent variable is Relative Destinations during the legislature following the election. RD regression estimated using a first-degree polynomial in the electoral margin, with bandwidths chosen to minimize the mean squared error. Column (1) includes all Sicilian municipalities, while columns (2) and (3) separate the sample into mafia and non-mafia municipalities. Column (4) further restricts to mafia municipalities with at least 5,000 eligible voters. The data cover the 1994–2018 period. Standard errors are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Table 4: **Balance tests**

	(1) Pop.density	(2) Young pop.	(3) Old pop.	(4) Housewives	(5) Pop. (log)	(6) Agric. L.F.	(7) FLFP	(8) Illiterate pop.	(9) Graduated pop.
RD Estimate	74.529 (96.730)	-0.006 (0.005)	0.015 (0.010)	-0.008 (0.007)	0.054 (0.174)	0.002 (0.015)	0.006 (0.007)	-0.002 (0.002)	0.002 (0.003)
Observations	1,823	1,773	1,878	1,773	1,878	1,773	1,773	1,878	1,773

Notes: Regression Discontinuity estimated coefficients. The running variable is the Electoral margin, the vote difference between a Forza Italia candidate and the main competitor at national elections under the majoritarian system. The dependent variables are a set of covariates at the municipality level: population density, share of population under 25 years old, share of population over 65 years old, share of housewives over the female population, logarithm of population, share of working-age population in the agricultural sector, female labor force participation, share of illiterate population, share of graduated population. All of these variables come from the Istat website. Only a first degree polynomial is considered, and the optimal bandwidth is chosen by the minimization of the Mean Squared Error. The period of reference is between 1994 and 2018. Standard errors are clustered at the municipality level. *** p<0.01, ** p<0.05, * p<0.1

Overall, these results indicate that, despite partial vote manipulation, sufficient randomness remains—especially in larger mafia locales—for an RD comparison to be meaningful. When Forza Italia *barely* wins in a mafia-affected municipality, asset reallocations drop notably, signaling a post-electoral “reward” for organized crime.

As a final robustness exercise, we replicate our primary analysis employing the framework for RD heterogeneity analysis proposed by Calonico et al. (2025), enabling us to assess treatment heterogeneity within a single regression framework rather than through split samples. Detailed results of this robustness exercise are provided in the Online Appendix OA.1, confirming the stability of our key findings.

4.3 Proportional electoral system - Intensive Margin

The RDD analysis provided compelling evidence that mafia-controlled votes were rewarded with reduced reallocation of confiscated assets. However, because the RDD relies on electoral discontinuities, it can only capture the *extensive margin* of vote buying—whether a municipality was included in the deal—but does not provide insight into the *magnitude* of vote buying. In this section, we shift our focus toward an *intensive margin* approach, investigating whether areas with greater mafia vote-buying capacity experienced stronger reductions in asset reallocation.

A natural approach would be to examine whether Forza Italia’s vote shares predict lower reallocation of confiscated assets. However, vote shares are inherently endogenous, reflecting not only mafia influence but also broader electoral forces. More importantly, even if cross-sectional differences in Forza Italia vote shares are likely to correlate with long-run mafia influence, there is no reason to assume that *over-time variations* in Forza Italia vote shares accurately reflect changes in vote-buying capacity. Electoral support fluctuates due to a host of political, economic, and social factors, and there is no evidence that mafia-controlled votes shift meaningfully across elections. Instead, a more plausible assumption is that mafia support for political parties is largely *time-invariant*. For this reason, rather than exploiting time variation in electoral results, we focus on a proxy that captures the historical intensity of mafia-controlled voting power.

A proxy for historical vote-buying capacity. To proxy for the magnitude of vote buying, we leverage a well-documented historical event in Sicily. Judicial investigations (Falcone and Padovani, 1991) reveal that in 1987, the boss of Cosa Nostra, *Totò Riina*, ordered the criminal organization to move its votes from the Christian Democrats (DC) to the Socialist Party (PSI) as the former *‘were not doing their duty’*. In particular, Riina complained that the DC was not helping the criminal organization regarding the developments of the Palermo Maxi-Trial. The meeting concluded with the decision to vote for the PSI, specifically for on. Martelli — not because Martelli had ties to Cosa Nostra, but to *‘give a slap’ to the DC*. (see the full testimony of a Mafia turncoat in appendix F).

This abrupt shift in support resulted in an observable decline in DC vote shares, concentrated in areas where mafia influence was strongest. Consequently, we use the change in DC vote share between 1979 and 1987 as a proxy for the intensity of mafia-controlled voting power at the mandamento level (see Figure G.2). Importantly, this measure is antecedent to Berlusconi’s entry into politics and is thus plausibly exogenous to his subsequent potential efforts to limit assets reallocation. While our proxy naturally correlates with long-run mafia strength, it is difficult to conceive of a channel linking it to reduced assets reallocation *except* through vote buying and its political reciprocation.

Specifically, we estimate the following equation:

$$Rel.Destinations_{i,t} = \beta Drop\ DC(1979 - 87)_i * Berlusconi\ government_t + \Theta_{i,t} + \epsilon_{i,t} \quad (11)$$

Table 5: **Reduced form**

	Relative Destinations - Properties					
	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample	Mafia	No Mafia	Full sample	Mafia	No Mafia
Drop DC (1979-87) \times Berlusconi govt.	-0.011* [0.006] (0.005)	-0.024*** [0.006] (0.007)	-0.001 [0.008] (0.005)	-0.011 [0.008] (0.006)	-0.029*** [0.008] (0.008)	0.012 [0.009] (0.007)
Mandamento FE	✓	✓	✓	✓	✓	✓
Legislature FE	✓	✓	✓			
Judicial District \times Legislature FE				✓	✓	✓
mean(Y)	-.110	-.116	-.101	-.110	-.116	-.101
sd(Y)	.407	.392	.426	.407	.392	.426
Observations	1,136	624	512	1,136	624	512
R-squared	0.085	0.125	0.077	0.313	0.436	0.464
Number of mandamento	142	78	64	142	78	64

Notes: Reduced form estimated coefficients. The explanatory variable is the interaction between the drop in Christian Democrats' vote share between the national elections of 1979 and 1987 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The dependent variable is Relative destinations, which are the relative destinations that occurred during legislature t . Columns 1 and 4 include all Sicilian mandamenti. Columns 2 and 5 (3 and 6) include only the ones under (not under) the control of the mafia. Columns 1-3 (4-6) employ legislature (judicial district times legislature) fixed effects. The period of reference is between 1994 and 2022. Robust standard errors clustered at the mandamento level in brackets. Conley standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

where the dependent variable measures relative destinations in mandamento i during legislature t .¹⁶ The key explanatory variable is the interaction between the drop in DC vote share from 1979 to 1987 and a dummy indicating whether Berlusconi was in power during legislature t .

The specification includes a rich set of fixed effects, denoted by $\Theta_{i,t}$, which control for time-invariant characteristics at the mandamento level as well as broader institutional and political factors. Specifically, we include mandamento fixed effects, legislature fixed effects, province-by-legislature fixed effects, and judicial district-by-legislature fixed effects¹⁷.

We expect to estimate a negative coefficient on β , indicating that during Berlusconi's governments, municipalities with historically stronger mafia vote-buying capacity experienced a greater decline in relative assets destinations.

Results The OLS estimations of equation (11) are reported in Table 5.

Columns (1)–(3) present results including legislature and mandamento fixed effects, while columns (4)–(6) add judicial district-by-legislature fixed effects to further account for regional-level time-varying confounders. Across specifications, we find a significant negative coefficient β , indicating that a stronger historical vote-buying capacity is associated with lower reallocation of confiscated

¹⁶In this specification, the greater sample size makes it possible to refine the index by excluding firms, whose reallocation process differs from that of other assets. This refinement was not feasible in the RDD analysis.

¹⁷Sicily is divided into 9 provinces, 24 judicial districts, 157 mandamenti (historically used for administrative purposes but now obsolete), and 391 municipalities (which numbered around 360 in earlier decades).

mafia assets, but only during Berlusconi’s governments.

The effect is entirely concentrated in mafia municipalities. In columns (2) and (5), which restrict the sample to mafia-controlled areas, the coefficient is substantially larger in magnitude and more statistically significant than in the full sample. In contrast, columns (3) and (6), which focus on non-mafia municipalities, show small and statistically insignificant effects. Crucially, this lack of an effect in non-mafia areas does not stem from an absence of variation in DC vote share declines or in assets reallocation.¹⁸ Both variables exhibit meaningful cross-sectional differences across all municipalities (Table 1), yet in non-mafia municipalities, the two do not correlate in a systematic way. This reinforces the idea that vote-buying capacity, rather than other potential confounders, is the key driver of the observed reductions in reallocations under Berlusconi’s governments.

In terms of magnitude, the estimates suggest that a *one percentage point* decline in DC vote share between 1979 and 1987 is associated with a reduction in the relative destination index of approximately 0.02 to 0.03 –around 0.07 standard deviations– during Berlusconi’s governments and only within mafia areas.

Although the extensive battery of fixed effects accounts for time-varying omitted variables at the judicial district level, we further strengthen our analysis by demonstrating that this measure of historical vote-buying capacity translates into higher electoral support for Forza Italia (see the next subsection). Moreover, we establish that the effect of vote-buying capacity on asset reallocation is conditional on Berlusconi being in power—suggesting that the observed reductions in asset reallocation were not merely the result of long-run differences across municipalities, but rather a function of political alignment and reciprocal electoral agreements. Finally, as part of our robustness checks, we show that the negative effect on assets destination is more pronounced when electoral competition in the rest of Italy (excluding Sicily) was high, reinforcing the interpretation that mafia votes were particularly valuable when national political dynamics made forming a stable government more uncertain.

4.4 Mechanisms

Is this really vote buying? Having shown that historical vote-buying capacity predicts lower asset reallocations—only during periods when Berlusconi holds power at the national level— we now test whether this link operates through the actual delivery of votes to Forza Italia. In other words, we ask whether mandamenti that convert their latent vote-shifting power into higher FI vote shares receive the sharpest policy concessions during Berlusconi’s cabinets. Demonstrating a strong first-stage relationship between our historical proxy and contemporary FI support—and then tracing that support to the drop in reallocations—allows us to confirm that the reward flows through the electoral channel rather than some unrelated local characteristic. To do so, we estimate:

¹⁸A simple two-sample *t*-test reveals no statistically significant differences: for both our proxy of historical vote-buying capacity and for our relative destinations index the difference in means is small and insignificant ($p = 0.81$ and $p = 0.52$).

$$RelDestinations_{i,t} = \gamma Share FI(1994 - 2001)_i * Berlusconi government_t + \Theta_{i,t} + \epsilon_{i,t}, \quad (12)$$

where the dependent variable and the set of fixed effects remain the same as in equation (11). The key explanatory variable, *Share FI (1994-2001)*, represents the average vote share obtained by Forza Italia in mandamento i across the first three national elections in which the party participated (1994, 1996, and 2001)¹⁹. *Berlusconi government* is a dummy variable equal to one if Berlusconi was in power during legislature t ²⁰. We expect to estimate a negative coefficient γ , suggesting that, during Berlusconi’s governments, relative destinations dropped in mandamenti that historically provided stronger electoral backing to Forza Italia.

We restrict the measure of Forza Italia support to the 1994, 1996, and 2001 elections for several reasons. First, previous studies (Buonanno et al., 2016) have demonstrated that Forza Italia swiftly filled the political vacuum left by the dissolution of the Christian Democrats—the party historically backed by the Sicilian mafia (De Feo and De Luca, 2017). If vote buying influenced electoral outcomes, its effects should be particularly evident in the earliest elections following Forza Italia’s emergence. Second, Berlusconi governed almost continuously during the 2000s but held power only briefly in the 1990s (aside from 1994). By restricting our measure of electoral support to the early years of Forza Italia’s existence, we mitigate concerns of reverse causality, wherein changes in asset reallocation during Berlusconi’s governments could have influenced electoral outcomes. Nevertheless, our findings remain qualitatively robust when alternative measures of Forza Italia support are used. In Appendix C, we show that our results hold when replacing *Share FI (1994-2001)* with: (i) Forza Italia’s vote share in the 1994 election alone, and (ii) a time-varying measure of Forza Italia’s vote share in each election t , as well as its interaction with *Berlusconi government*. The latter specification also confirms that municipalities with higher Forza Italia vote shares did not systematically receive fewer assets reallocations *per se*, but only during Berlusconi’s governments.

By combining the two sides of the deal—vote-buying capacity and electoral support for Forza Italia—we further establish the causal chain through instrumental variable estimations. Specifically, we instrument *Share FI (1994-2001) × Berlusconi government* with *Drop DC (1979-87) × Berlusconi government*. This allows us to isolate the variation in Forza Italia support that is plausibly driven by historical vote-buying capacity, thereby strengthening the causal interpretation of our findings. OLS estimations of equation (12) are reported in Appendix B.

Table 6 presents the IV estimates. Columns (1)–(3) include mandamento and legislature fixed effects, whereas Columns (4)–(6) replace the legislature fixed effects with province-by-legislature

¹⁹We focus on average vote shares rather than time-varying fluctuations for the same reasons outlined in the previous section—namely, that within variations in electoral outcomes are unlikely to reliably capture changes in vote-buying capacity.

²⁰Since Sicily is one of Italy’s 20 regions, the electoral support of an individual mandamento has a negligible impact on national election outcomes.

Table 6: **IV Results**

Panel A: 2nd stage	Relative Destinations - Properties					
	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample	Mafia	No Mafia	Full sample	Mafia	No Mafia
Share FI (1994-2001) \times Berlusconi Government	-0.019* [.010] (0.009)	-0.042*** [0.016] (0.019)	-0.002 [0.013] (0.008)	-0.016 [0.012] (0.011)	-0.039** [0.002] (0.024)	0.012 [0.013] (0.009)
Kleibergen-Paap F statistics	40.946	12.541	32.070	33.516	11.137	19.250
R-squared	0.007	-0.02	0.001	0.318	-0.026	-0.013
Panel B: 1st stage	Share FI (1994-2001) \times Berlusconi Government (1st stage)					
Drop DC (1979-87) \times Berlusconi Government	0.062*** [0.010]	0.058*** [0.016]	0.064*** [0.011]	0.055*** [0.010]	0.050*** [0.015]	0.057*** [0.013]
R-squared	0.956	0.951	0.952	0.941	0.940	0.949
Mandamento FE	✓	✓	✓	✓	✓	✓
Legislature FE	✓	✓	✓			
Province \times Legislature FE				✓	✓	✓
Observations	1,136	624	512	1,136	624	512
Number of mandamento	142	78	64	142	78	64

Notes: Instrumental variable estimated coefficients. The second (first) stage is reported in panel A (B). The explanatory variable in panel A is the interaction between the average Forza Italia vote share at the national elections of 1994, 1996 and 2001 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The dependent variable is Relative destinations, which are the relative destinations occurred during legislature t . The instrumental variable is the interaction between the drop in Christian Democrats vote share between the national elections of 1979 and 1987 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The explanatory and instrumental variables of panel A are respectively the dependent and independent variables in Panel B, which reports the first stage results. Columns 1 and 4 include all Sicilian mandamenti. Columns 2 and 5 (3 and 6) include only the ones under (not under) the control of the mafia. Columns 1-3 (4-6) employ legislature (province times legislature) fixed effects. The period of reference is between 1994 and 2022. Robust standard errors clustered at the mandamento level in brackets. Conley standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

fixed effects.²¹

The results confirm our previous findings: mandamenti with greater historical vote-buying capacity exhibited stronger electoral support for Forza Italia, and this electoral support was associated with a decline in assets reallocation *only* during Berlusconi’s governments. This evidence further reinforces the interpretation that the reductions in relative destinations were not incidental, but rather part of a broader political agreement involving reciprocal electoral support and policy concessions.

Even after including the most demanding set of fixed effects, one might worry that the decline in DC vote shares correlates with unobserved factors affecting our outcomes, thereby violating the exclusion restriction. To assess this directly, we employ the Kolmogorov–Smirnov (KS) test developed by D’Haultfoeulle et al. (2024). In our setting, relative destinations serve as the outcome variable, the average Forza Italia share between 1994 and 2001 as the endogenous regressor, and the

²¹Replacing these with the finer district-by-legislature fixed effects makes the second-stage point estimates discretely larger and more precisely estimated but the additional fixed effects absorb much of the first-stage variation, rendering the instrument weak. Results are available upon request.

1979–1987 DC vote-share decline as the instrument. The KS test fails to reject the null hypothesis that the exclusion restriction holds (p-value = 0.523), providing no evidence against the validity of our instrument.

Electoral competition. If vote-buying capacity influences relative destinations through actual vote buying, we should observe larger reductions in assets reallocations when mafia electoral support is particularly *valuable*—that is, during periods of intense electoral competition. When elections are highly contested, even small changes in voting outcomes can be decisive, increasing the marginal value of mafia-delivered votes.

Following De Feo and De Luca (2017), we collect data on the vote-share difference between Forza Italia (FI) and the main left-wing party at the time –*Partito Democratico della Sinistra* (PDS)—in the remaining 19 Italian regions (i.e., excluding Sicily). We then regress relative destinations on the interaction of this measure of electoral competition with the historical vote-buying capacity (i.e., the drop in DC vote shares between 1979 and 1987). Because Forza Italia was not the leading center-right party at the 2018 and 2022 national elections, we limit the analysis to the 1994–2017 period.

Table 7 reports our results. Notably, the negative and statistically significant coefficient of electoral competition on relative destinations appears only *within* legislatures in which Berlusconi formed a government (columns 1 and 4). This indicates that whenever Berlusconi held power, Mafia was rewarded *more* in periods of higher electoral competition—fitting our interpretation that the value (and cost) of delivered votes is greater in more competitive settings. By contrast, we find no significant effect in other legislatures (columns 2 and 5), underscoring the importance of Forza Italia’s policymaking authority in shaping these outcomes.

Importantly, when we examine the relationship between electoral competition and Forza Italia’s baseline vote share (columns 3 and 6), we find that higher competition does not translate into additional votes for FI. This implies that the negative coefficient in columns (1) and (4) is not driven by any intensified vote-buying efforts, but rather by the greater “value” of mafia-delivered votes under more competitive conditions. This stands in contrast to the First Republic scenario described by De Feo and De Luca (2017), where heightened electoral competition boosted DC vote shares in mafia-affected municipalities. By comparison, our findings align with our theoretical prediction that, in the Second Republic, the Mafia sells its votes in every national election—irrespective of the PDS’s popularity—rather than selectively mobilizing only when competition was fierce, as it did during the Cold War to oppose the Communist Party (PCI). This also reinforces our practical assumption that vote buying in the Second Republic is effectively time-invariant.

Alternative strategies and rewards. We finally examine whether (i) our measure of national-level vote buying does not explain local-level economic concessions—such as construction contracts or waste disposal procurements—which prior literature identifies as common rewards for mafia electoral support; and (ii) vote buying was the Mafia’s main strategy for influencing destinations. Although we cannot rule out *a priori* every possible form of compensation, the distinctive features

Table 7: **Reduced form - Electoral competition**

	Rel. Destinations		Sh. Forza Italia	Rel. Destinations		Sh. Forza Italia
	(1)	(2)	(3)	(4)	(5)	(6)
	Berlusconi govts	Centre-left govts	Full sample	Berlusconi govts	Centre-left govts	Full sample
Drop DC (1979-87) \times Elect. competition	-0.207** [0.088]	-0.787 [.603]	-0.014*** [0.042]	-0.160* [0.085]	-0.817 [0.654]	-0.013*** [0.048]
Mandamento FE	✓	✓	✓	✓	✓	✓
Legislature FE	✓	✓	✓			
Province \times Legislature FE				✓	✓	✓
Observations	426	426	933	426	426	933
R-squared	0.033	0.146	0.778	0.179	0.241	0.818
Number of mandamento	142	142	157	142	142	157

Notes: Reduced form estimated coefficients. The explanatory variable is the interaction between the drop in Christian Democrats vote share between the national elections of 1979 and 1987 in mandamento i and the difference between PDS and Forza Italia vote share at the national elections of year t in the remaining 19 Italian regions (i.e., excluding Sicily). In columns 1-2 and 4-5, the dependent variable is Relative destinations, which are the relative destinations of real estates occurred during legislature t . In columns 3 and 6, the dependent variable is Forza Italia’s vote share at the national elections of year t . Columns 1 and 4 (2 and 5) include only legislatures where Berlusconi formed (did not form) a government. Columns 3 and 6 include all legislatures. Columns 1-3 (4-6) employ legislature (judicial district times legislature) fixed effects. The period of reference is between 1994 and 2017. Robust standard errors clustered at the mandamento level in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

of our outcome variable suggest that misallocation of confiscated assets is a particularly plausible way for the national government to reward the Mafia for electoral support.

Most other anti-mafia policies—including arrests, confiscations, and investigations—are primarily managed at the local level by judicial authorities, with only limited scope for executive intervention. Although the national government can shape enforcement priorities, prosecutors and law enforcement agencies enjoy considerable autonomy in implementing these policies. Public procurement advantages, while historically important—especially during the First Republic (De Feo and De Luca, 2017)—are also largely determined at the municipal or regional level.

Reassuringly, the results in Table 8 support this view. Column (1) replaces *relative destinations* in equation (11) with the fraction of municipal public spending devoted to construction projects during legislature t .²² Column (2) presents the corresponding 2SLS estimation from equation (12). In both cases, the estimated coefficients are statistically indistinguishable from zero. We obtain the same null results when focusing on public spending allocated to waste disposal. Thus, when focusing on two sectors where organized crime generally obtains economic advantages from ruling political parties (De Feo and De Luca, 2017; Di Cataldo and Mastrorocco, 2022), we find no evidence at the local level of rewards being driven by a victory of Forza Italia at the national elections. Crucially, column 5 draws an opposite conclusion when focusing on local elections, rather than national ones. Specifically, the victory of a mayor affiliated to Forza Italia increases the percentage of public spending devoted to construction by 0.3 percentage points. This effect is economically meaningful: since construction spending averages 7.6% of municipal budgets, the estimate implies an increase of about 4% relative to the mean. Instead, column 6 fails to estimate a statistically significant coefficient for

²²We collect municipal-level public spending data from the Ministry of Interior’s online portal: finanzalocale.interno.gov.it/apps/floc.php/in/cod/4.

Table 8: OLS and IV results- Alternative lobbying strategies: reallocation of public resources

Y = Fraction of Spending in	Construction		Waste disposal		Construction	Waste disposal
	(1) OLS	(2) IV	(3) OLS	(4) IV	(5) OLS	(6) OLS
Drop DC (1979–87) × Berlusconi Govt.	-0.002 [0.017]		-0.056 [0.040]			
Share FI (1994–2001) × Berlusconi Govt.		-0.004 [0.029]		-0.095 [0.070]		
Mayor FI					0.003* [0.002]	-0.003 [0.003]
Legislature FE	✓	✓	✓	✓	✓	✓
Mandamento FE	✓	✓	✓	✓		
Municipality FE					✓	✓
Observations	785	785	785	785	1,811	1,811
R-squared	0.120	0.000	0.484	0.207	0.085	0.448
Number of Mandamento	157	157	157	157		
Number of municipalities					390	390

Notes: OLS and IV estimated coefficients. The explanatory variable in columns 1-2 and 3-4 (5 and 6) is respectively the average share of municipalities’ public budget devoted to constructions and waste disposal in mandamento (municipality) i during national legislature t . The explanatory variable in columns 1 and 3 is the interaction between the drop in Christian Democrats’s vote share between the national elections of 1979 and 1987 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The explanatory variable in columns 2 and 4 is the interaction between the average Forza Italia vote share at the national elections of 1994, 1996 and 2001 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The explanatory variable in columns 5 and 6 is a dummy equal to 1 if the mayor of municipality i during legislature t is affiliated to Forza Italia, and zero otherwise. In columns 1-4, the unit of analysis is the mandamento, while in columns 5-6 it is the municipality. The period of reference is between 1996 and 2017. Robust standard errors clustered at the mandamento (columns 1-4) and municipality (columns 5-6) level in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

waste disposal. These results are consistent with our narrative and conceptual framework: public procurements are mostly issued at the local level and thus do not require a party’s victory at the national level to serve as a potential reward.

By contrast, the reallocation of confiscated mafia assets is controlled by a national agency, giving the party in power at the national level a more direct role in deciding whether these resources return to legitimate civic uses or remain under *de facto* mafia influence.

A relevant question is whether other central-level anti-mafia policies could serve as an equally direct reward. Table 9 shows that the second major anti-mafia policy *partly* administered at the national level—namely, the dissolution of municipalities for mafia infiltration (Di Cataldo and Mastorocco, 2022)—does not significantly correlate with either vote-buying capacity (column 1) or Forza Italia vote shares under Berlusconi’s governments (column 2). Hence, reduced reallocations appear more plausibly connected to reciprocal electoral arrangements than other anti-mafia tools that the national government can influence.

Relatedly, one might wonder if relative destinations declined under Berlusconi due to lobbying strategies other than vote buying (e.g., bribery or intimidation, sometimes captured under the *plata o plomo* logic (Dal Bó et al., 2006)). Parsing out such mechanisms is challenging, but prior research indicates that dissolving municipalities for mafia ties promptly reduces corruption intensity,

Table 9: **OLS results - Alternative lobbying strategies: *plata o plomo***

	Municipalities dissolution		Rel. Destinations	Mafia murders		Rel. Destinations
	(1)	(2)	(3)	(4)	(5)	(6)
Drop DC (1979-87) × Berlusconi govt.	0.002 [0.003]			0.006 [0.006]		
Share FI (1994-2001) × Berlusconi govt.		0.153 [0.208]			0.365 [0.404]	
Municipalities dissolution			-0.045 [0.058]			
Mafia murders						0.021 [0.038]
Mandamento FE	✓	✓	✓	✓	✓	✓
Judicial district × Legislature FE	✓	✓	✓	✓	✓	✓
Observations	1256	1247	1136	1256	1247	1136
R-squared	0.206	0.208	0.312	0.390	0.392	0.311
Number of mandamento	157	157	142	157	157	142

Notes: OLS estimated coefficients. The explanatory variable in columns 1 and 4 is the interaction between the drop in Christian Democrats' vote share between the national elections of 1979 and 1987 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The explanatory variable in columns 2 and 5 is the interaction between the average Forza Italia vote share at the national elections of 1994, 1996 and 2001 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The explanatory variable in column 3 is a dummy equal to 1 if at least one municipality within mandamento i has been dissolved for mafia penetration during legislature t , while in column 6 it is a dummy equal to 1 if at least a mafia-related murder occurred in mandamento i during legislature t . In columns 1-2 and 4-5, the dependent variable is respectively the above-mentioned dummy for municipalities' dissolution and mafia-related murders. In columns 3 and 6 the dependent variable is Relative destinations, which are the relative destinations that occurred during legislature t . The period of reference is between 1994 and 2022. Robust standard errors clustered at the mandamento level in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

in part by raising the caliber of politicians and social capital (Di Cataldo and Mastrorocco, 2022; Buonanno et al., 2024). Consistent with our interpretation, variations in municipality dissolutions do not explain relative destinations (column 3).

We also investigate whether mafia-related violence could have produced these effects. Table 9 (columns 4 and 5) shows no meaningful association between mafia-related homicides and either historical vote-buying capacity or Forza Italia vote shares under Berlusconi. Likewise, changes in homicide rates do not coincide with changes in relative destinations.²³ Remarkably, this is coherent with the evidence provided by Carrozzo Magli (2025), who finds a positive association between confiscations and violence during the First Republic, but fails to find a significant relation in the Berlusconi age.

In sum, while these results do not preclude other possible avenues for compensation or lobbying, they strongly suggest that misallocation of confiscated assets functions as an important mechanism through which the Mafia has reaped electoral rewards at the national level during the Second Republic.

²³All regressions include mandamento and judicial district-by-legislature fixed effects. The main results hold if we use fewer fixed effects (available upon request).

4.5 External validity: developed vs. developing economies

While we leverage the unique characteristics of Sicily—home to one of the world’s oldest and most influential criminal organizations—our findings draw on the broader Italian legal framework, which is often regarded as one of the world’s strictest anti-mafia legislations. Although electoral collusion exists in both developed and developing contexts (Leight et al., 2020), past research (De Feo and De Luca, 2017; Buonanno et al., 2016) and our own results suggest that the specific structure of vote trading heavily depends on the stringency of national anti-mafia laws.

In an environment like Italy’s, where law enforcement can confiscate and reallocate illicit assets, deliberately withholding their reassignment can serve as a covert yet powerful “reward” for electoral support. Our evidence on misallocation is thus more directly applicable to similarly advanced economies that employ robust legal tools against organized crime. By contrast, in regions with weaker legislation or less effective enforcement, alternative forms of compensation—such as outright payoffs or violent intimidation—may dominate.

For instance, in India, research has shown that direct economic concessions to voters partly stem from candidates with criminal backgrounds (Schechter and Vasudevan, 2023; Anderson et al., 2015), yet India’s *Prevention of Money Laundering Act* (2002) has a negligible conviction rate (The Hindustan Times), limiting the feasibility of asset-focused rewards or penalties. Conversely, in Mexico, a candidate’s narrow victory can prompt heightened enforcement efforts—including the confiscation of economic assets from drug traffickers—aimed at confronting cartels (Dell, 2015; Osorio, 2015). However, the “plata o plomo” (silver or lead) dilemma, in which criminal groups resort to either bribery or violence to co-opt officials, complicates the task of distinguishing policy-driven changes from endogenous reactions in violence (Atuesta and Ponce, 2017).

These examples highlight that our findings may not apply unconditionally in countries lacking strong anti-mafia frameworks, where open violence or direct clientelism can overshadow subtler, policy-based exchanges. Nonetheless, they do shed light on how organized crime’s tactics can evolve once more rigorous legislation is introduced. As developing economies strengthen enforcement regimes and legal instruments against organized crime, violence and intimidation may gradually give way to more economically oriented exchanges—similar to the clandestine deals we document in Italy.

5 Conclusions

This paper provides causal evidence of mafia vote buying and its economic rewards at the national level, highlighting the misallocation of confiscated mafia assets as a form of political compensation. By combining a theoretical model with two complementary empirical strategies, we demonstrate that mafia electoral support is exchanged for political concessions that weaken anti-mafia policies, particularly in periods of heightened electoral competition.

Building on an existing probabilistic-voting framework, we specialise the model to the case of the Sicilian Mafia and derive new, testable predictions on how electoral competition shapes both the extent and the distribution of such rewards. We then test these implications empirically, showing

that the electoral success of Forza Italia, the dominant center-right party in Italy from 1992 to 2022, is systematically associated with a decline in the allocation of confiscated mafia assets in municipalities under mafia influence whenever the party was in power.

The evidence supporting this conclusion is twofold. First, in a Regression Discontinuity Design we show that municipalities narrowly won by Forza Italia experienced a lower reallocation of confiscated assets, particularly where mafia control was historically strong. Moreover, by exploiting the sharp decline in Christian Democratic (DC) votes following the mafia's withdrawal of electoral support in 1987, we construct a proxy for historical vote-buying capacity and find that areas with a greater vote-shifting ability saw more pronounced reductions in asset reallocation when Berlusconi was in power. Within the literature on organised crime, this is the first strong causal evidence on vote buying and its rewards in terms of policies.

Our findings carry significant implications for the study of organized crime, political economy, and governance. They suggest that mafia vote buying is not only a local phenomenon but also extends to the national level, influencing the implementation of key anti-mafia policies. Furthermore, the results highlight how electoral incentives can distort policy enforcement, weakening the intended punitive effects of asset confiscation.

In conclusion, our study sheds light on a critical yet often overlooked aspect of the mafia's relationship with political power: electoral collusion is not just about delivering votes, but also about shaping policy outcomes that allow criminal organizations to maintain their economic and territorial control. Addressing this challenge requires a combination of legal, institutional, and political reforms to insulate anti-mafia efforts from electoral bargaining and ensure that asset confiscation truly serves its intended purpose.

Appendix

A McCrary Tests

Table A.1: McCrary test for manipulation of electoral margin

	McCrary test			
	(1) Full Sample	(2) Mafia	(3) No Mafia	(4) Mafia & $> 5k$ voters
T-test	0.99	1.16	0.45	0.74
P-values	0.32	0.25	0.65	0.46
Observations	1544	1036	508	376
No. Elections	4	4	4	4

Notes: McCrary test for density manipulation in the running variable electoral margin. Electoral margin is obtained from the absolute difference at the municipality level between the vote share of a Forza Italia candidate and the competitor at national elections with the majoritarian system. The null hypothesis of the test is no manipulation in the running variable, i.e. that the density of the variable above and below the cutoff are identical. We report here the robust method to compute the T-statistic and its p-value. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

B District Contributions

We offer a further piece of evidence on the majoritarian setting. Our logic is that municipalities contributing more to the victory of an electoral district, given vote buying, should reward Mafia in terms of lower economic response. To assess this possibility, we estimate through OLS the following model:

$$RelDestinations_{i,t} = \alpha_1 ShareFI_{i,t} + \alpha_2 ContributionDistrict_{i,t} + \Theta_{i,t} + \epsilon_{i,t} \quad (13)$$

Where:

- $RelDestinations_{i,t}$ are the relative destinations in municipality i after the elections at time t
- $ShareFI_{i,t}$ is the absolute number of votes that municipality i gave to the Forza Italia candidate at elections at time t
- $ContributionDistrict_{i,t}$ is the share of votes given to Forza Italia in municipality i with respect to all votes collected by the party at elections t in the municipality's district
- Θ is a set of Fixed Effects, namely municipality, electoral district, legislature, and electoral district times legislature Fixed Effects

In this empirical framework, we should see that the more a municipality contributes to the total votes received by a Forza Italia candidate within the district, the more the economic response to

mafia should soften²⁴. In other words, the coefficient α_2 should have a negative sign. Table B.1 presents the estimated coefficients for equation (13), for the full sample and Mafia and non-Mafia municipalities.

Table B.1: Contribution to district and Relative Destinations

VARIABLES	Full Sample	Mafia	No Mafia
	Rel.Destinations	Rel.Destinations	Rel.Destinations
Tot.Votes FI	0.024* [0.012]	0.025 [0.022]	0.025 [0.017]
District Contribution (%)	-0.011*** [0.004]	-0.013** [0.006]	-0.005 [0.005]
Observations	1,319	588	731
R-squared	0.245	0.390	0.362
Number of municipalities	270	118	152
Municipality FE	✓	✓	✓
District \times Year FE	✓	✓	✓

Notes: Robust standard errors in brackets are clustered at the municipality level. OLS Regressions with Relative Destinations as outcome variable, and district contribution as major explanatory variable. The first column considers all Sicilian municipalities' electoral outcomes under majoritarian elections in the period 1994-2022. The second column considers only Mafia municipalities, the third column only non-Mafia municipalities. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

As we can observe from Table B.1, the more a municipality contributed to a Forza Italia candidate within the same electoral district and at parity of total votes given and municipality's characteristics, the lower the Relative Destinations within that municipality in the following years. This effect is significant for the full sample and the Mafia-only sample, while it is not significant, and with a smaller coefficient size, for non-Mafia municipalities. Thus, this evidence also reinforces the idea that vote-buying was rewarded with lower relative destinations during the years with majoritarian system.

C Relative Destinations on Share Forza Italia - OLS

The OLS estimations of equation (12) are reported in Table C.1

Similarly to Table 5, the first (last) three regressions employ mandamento and legislature (judicial district times legislature) fixed effects, respectively on: (i) the full sample; (ii) the mandamenti plagued by mafia; (iii) the mandamenti not plagued by mafia. Reassuringly, we estimate a negative and statistically significant γ only in cases (i) and (ii), while failing to find statistically different from zero coefficients in the sub-sample of non mafia mandamenti.

²⁴It is important to keep in mind that we are looking at results at parity of total votes, within the same district and year.

Table C.1: OLS results

	Relative Destinations - Properties					
	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample	Mafia	No Mafia	Full sample	Mafia	No Mafia
Share FI (1994-2001) \times Berlusconi Government	-0.012*** [.003]	-0.018*** [0.006]	-0.006 [0.008]	-0.015*** [0.005]	-0.021*** [0.006]	-0.009 [0.007]
Mandamento FE	✓	✓	✓	✓	✓	✓
Legislature FE	✓	✓	✓			
Judicial District \times Election FE				✓	✓	✓
Observations	1,136	624	512	1,136	624	512
R-squared	0.091	0.129	0.079	0.318	0.437	0.464
Number of mandamento	142	78	64	142	78	64

Notes: OLS estimated coefficients. The explanatory variable is the interaction between the average Forza Italia vote share at the national elections of 1994, 1996 and 2001 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The dependent variable is Relative destinations, which are the relative destinations that occurred during legislature t . Columns 1 and 4 include all Sicilian mandamenti. Columns 2 and 5 (3 and 6) include only the ones under (not under) the control of the mafia. Columns 1-3 (4-6) employ legislature (judicial district times legislature) fixed effects. The period of reference is between 1994 and 2022. Robust standard errors clustered at the mandamento level in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

D Alternative measures of Forza Italia consensus

Here, we replicate the most demanding regressions of Table C.1 employing the (time variable) vote share of Forza Italia and the (time invariant) vote share at the elections of 1994 as alternative explanatory variables (interacted with Berlusconi government). Results are shown in Table D.1.

Table D.1: OLS results- alternative measures of Forza Italia consensus

	Relative Destinations - Properties					
	(1)	(2)	(3)	(4)	(5)	(6)
	Full sample	Mafia	No Mafia	Full sample	Mafia	No Mafia
Share FI 1994 \times Berlusconi government	-0.012*** [0.038]	-0.017*** [0.055]	-0.055 [0.056]			
Share FI				-0.003 [0.005]	0.013 [0.008]	-0.012 [0.007]
Share FI \times Berlusconi government				-0.009* [0.005]	-0.024*** [0.008]	0.004 [0.006]
Mandamento FE	✓	✓	✓	✓	✓	✓
J. District \times Election FE	✓	✓	✓	✓	✓	✓
Observations	1,120	624	496	1,127	624	503
R-squared	0.319	0.434	0.470	0.316	0.441	0.474
Number of mandamentos	140	78	62	142	78	64

Notes: OLS estimated coefficients. The explanatory variable in columns 1-3 is the interaction between Forza Italia vote share at the national elections of 1994 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . The explanatory variables in columns 4-6 are Forza Italia vote share in mandamento i at the national elections of year t and its interaction with the above-mentioned dummy for Berlusconi's government. The dependent variable is Relative destinations, which are the relative destinations that occurred during legislature t . Columns 1 and 4 include all Sicilian mandamenti. Columns 2 and 5 (3 and 6) include only the ones under (not under) the control of the mafia. The period of reference is between 1994 and 2022. Robust standard errors clustered at the mandamento level in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

E Falsification exercise – Confiscations

To verify that our main findings are not mechanically driven by contemporaneous changes in the stock of confiscated assets, we replicate every baseline specification using the *level* of confiscations—i.e. the denominator of our Relative Destinations index—as the dependent variable. Across all designs the estimated coefficients are negative but statistically indistinguishable from zero. This absence of significance indicates that neither the RDD treatment nor the panel interactions systematically reduces the flow of new confiscations; hence the decline in the Relative Destinations index truly reflects a shortfall in allocations rather than a contraction of the asset pool itself.

Moreover, the sign of the coefficients reinforces our interpretation. Because Relative Destinations are constructed as allocations divided by (*residual confiscations*), a policy-induced *decrease* in confiscations would mechanically reduce the denominator and, *ceteris paribus*, make the index *larger*. Our main estimates, however, document a decline in the index. Any hidden policy that lowered confiscations would therefore attenuate—not inflate—the negative effects we measure. Put differently, even if the negative coefficients on confiscations were statistically significant, they would imply that our baseline results understate the true magnitude of the payoff: the observed drop in allocations represents a *lower bound* on the degree to which national authorities rewarded the Mafia by stalling the social reuse of confiscated property.

Table E.1

	(1)	(2)	(3)	(4)
Total Confiscations	Full Sample	Mafia	No Mafia	Mafia & $\geq 5k$ voters
Forza Italia’s candidate win	-0.416 (2.619)	-1.161 (4.025)	0.464 (3.134)	-3.045 (8.169)
mean(Y)	-.10	-.09	-.11	-.11
std(Y)	.38	.38	.39	.41
Observations	1,042	664	378	351
No. Elections	4	4	4	4

Notes: Regression Discontinuity estimated coefficients. The running variable is the Electoral margin, the vote difference between a Forza Italia candidate and the main competitor at national elections under the majoritarian system. The dependent variable is Relative Destinations during the legislature following the election. RD regression estimated using a first-degree polynomial in the electoral margin, with bandwidths chosen to minimize the mean squared error. Column (1) includes all Sicilian municipalities, while columns (2) and (3) separate the sample into mafia and non-mafia municipalities. Column (4) further restricts to mafia municipalities with at least 5,000 eligible voters. The data cover the 1994–2018 period. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table E.2

	(1)	(2)	(3)	(4)	(5)	(6)
Total Properties Confiscations	Full sample	Mafia	No Mafia	IV – Full sample	IV – Mafia	IV – No Mafia
Drop DC (1979-87) × Berlusconi govt.	-46.999 [30.269]	-60.606 [60.715]	-36.216 [25.509]			
Share FI (1994-2001) × Berlusconi govt.				-76.488 [48.754]	-104.911 [103.746]	-56.494 [39.805]
Observations	1,136	624	512	1,136	624	512
Number of mandamento	142	78	64	142	78	64
R-squared	0.413	0.417	0.395	0.007	0.007	0.015
Mandamento FE	✓	✓	✓	✓	✓	✓
Legislature FE	✓	✓	✓	✓	✓	✓

Notes: Reduced form (col. 1-3) and 2SLS (col. 4-6) coefficients. In columns 1 to 3 the explanatory variable is the interaction between the drop in Christian Democrats' vote share between the national elections of 1979 and 1987 in mandamento i and a dummy equal to 1 if Berlusconi formed a government during legislature t . In columns 4 to 6 this measure is used as an instrument for the interaction between the average Forza Italia vote share over the 1994-2001 period. The dependent variable is Relative destinations, which are the relative destinations that occurred during legislature t . Columns 1 and 4 include all Sicilian mandamenti. Columns 2 and 5 (3 and 6) include only the ones under (not under) the control of the mafia. Columns 1-3 (4-6) employ legislature (judicial district times legislature) fixed effects. The period of reference is between 1994 and 2022. Robust standard errors clustered at the mandamento level in brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

**F Andreotti Trial, 1993 - Testimony of Mafia turncoat Baldassare Di Maggio
(from the Prosecution's Case)**

**PARAGRAPH 6
THE STATEMENTS
OF BALDASSARE DI MAGGIO**

The evidence gathered against the defendant will find further confirmation in the statements that will be made, in this trial, by Baldassare DI MAGGIO, the “Corleonese” collaborator who played a decisive role in the capture of Salvatore RIINA, carried out by the Carabinieri of the R.O.S. on January 15, 1993; specifically, in relation to:

- Cosa Nostra’s decision to send a **warning** to the Christian Democracy (D.C.) during the national political elections of 1987;
- The strategy pursued by the organization to influence the **maxi-trial**, through a network consisting of Ignazio SALVO, the Hon. LIMA, and Senator Giulio ANDREOTTI.

With regard to the first point, through DI MAGGIO’s testimony and related corroborations, the Prosecution will demonstrate that the leaders of Cosa Nostra decided on the course of action to take during the 1987 political elections in a meeting attended – among others – by DI MAGGIO himself, Salvatore RIINA, Antonino MADONIA, and Salvatore CANCEMI.

The meeting had been convened by RIINA to determine whether Cosa Nostra’s votes should be directed towards the D.C. or rather towards the Italian Socialist Party (P.S.I.), as the Christian Democrats “*were not doing their job.*”

Indeed, RIINA complained that the D.C. was not assisting the organization concerning the progress of the **maxi-trial**.

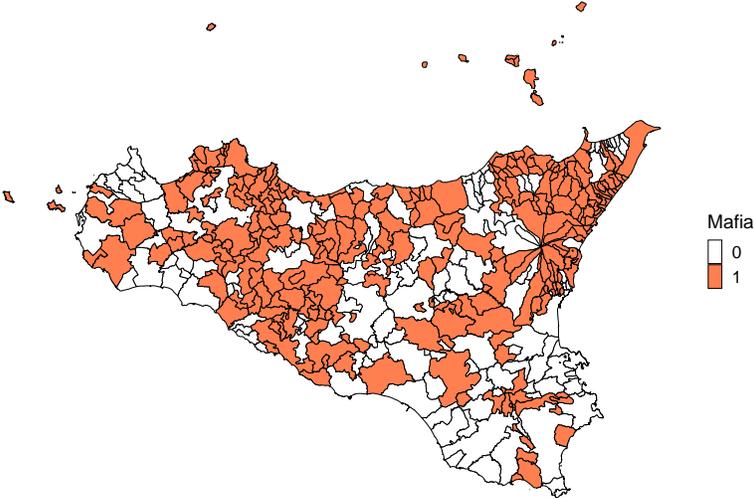
The meeting concluded with the decision to vote for the P.S.I. and, in particular, for Hon. MARTELLI, not because the latter had any ties with Cosa Nostra, but to “*send a slap*” to the D.C.

However, following a remark by Antonino MADONIA in this regard, it was allowed to continue voting for certain Christian Democratic candidates, as long as they were “*friends*” and still willing to assist the families with whom they had connections.

G Additional Figures

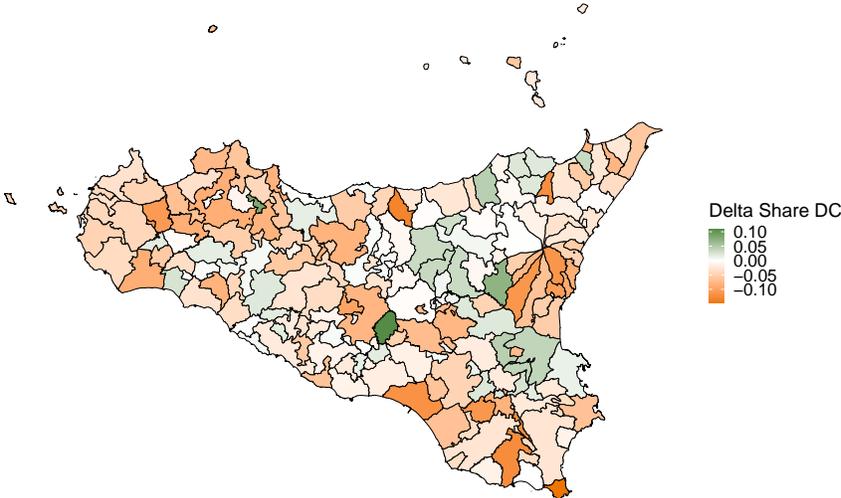
G.1 Map of mafia-controlled municipalities

Figure G.1: Dummy for Mafia presence



G.2 DC vote drop 1979-1987

Figure G.2: Cross-sectional variation in DC vote-share drop



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