Cohesion or collusion? EU funds in places with corrupt local institutions

Marco Di Cataldo, Elena Renzullo & Andrés Rodríguez-Pose

Papers in Evolutionary Economic Geography

25.10

Utrecht University Human Geography and Planning

Cohesion or collusion? EU funds in places with corrupt local institutions

Marco Di Cataldo[i], Elena Renzullo[ii⁰], & Andrés Rodríguez-Pose[iii]

Abstract

This paper provides the first analysis of how local institutional quality affects the distribution of EU funds across private beneficiaries, public entities, and local governments. Using high-quality Italian administrative data on city council dismissals due to collusion with organised crime, we examine whether corruption affects municipal control over EU resources. Applying a staggered difference-in-differences model and event studies, we find that corrupt local governments receive significantly fewer EU funds for their own operations, particularly in transport infrastructure and essential public services. However, this is not a consequence of efficient corruption detection, but rather a strategic choice. Corrupt administrations avoid larger EU projects to sidestep stricter anti-mafia regulations. This distortion weakens Cohesion Policy's impact, deprives communities of critical investment, and hampers local economic growth. While Italy's anti-mafia laws appear effective in blocking criminal access to EU funds, our findings expose the adaptability of organised crime, which simply switches its operations below existing regulatory thresholds. The takeaway is clear: good institutions matter. Where corruption thrives, EU funds do not disappear entirely, but they flow differently: less to infrastructure, more to smaller, more opaque projects. Stronger oversight is essential to ensure that Cohesion Policy delivers on its promise.

Keywords: Quality of institution, EU Cohesion Policy, city council dismissals, organised crime

JEL code: H7, H11, H77

[i] Department of Economics, Ca' Foscari University of Venice; Department of Geography and Environment, London School of Economics

[ii] Department of Geography and Environment, London School of Economics

[iii] Cañada Blanch Centre and Department of Geography and Environment, London School of Economics

[⁰] Corresponding author at: Department of Geography and Environment, London School of Economics, UK. E-mail address: e.renzullo@lse.ac.uk (E. Renzullo).

1 Introduction

The importance of institutions in shaping economic outcomes is now widely accepted (Acemoglu & Dell, 2010; Rodríguez-Pose, 2013). A growing body of research has documented how the efficiency, impartiality, and integrity of institutions influence a broad range of economic dimensions, including innovation, infrastructure development, regional competitiveness, and public sector efficiency (e.g., Rodríguez-Pose & Di Cataldo, 2015; Crescenzi et al., 2016; Annoni & Dijkstra, 2017). In line with these findings, variations in institutional quality across European regions have been found to play a significant role in determining the effectiveness of the EU Cohesion Policy (Becker et al., 2013; Rodríguez-Pose, 2013; Rodríguez-Pose & Garcilazo, 2015; Barbero et al., 2022; Di Stefano & Resce, 2025). The logic is straightforward: where institutions function well, policy interventions are more likely to deliver results. Where institutions are plagued by inefficiency —or, worse, corruption— public investment risks being wasted, misallocated, or actively siphoned off for other purposes.

Despite the wealth of research highlighting the broad importance of institutional quality, we still know little about the *precise* ways in which corruption distorts the allocation of EU funds. This gap is more than a theoretical oversight; it has tangible policy implications. The EU's Cohesion Policy is the largest development policy in the world, accounting for nearly one-third of the Union's total budget. Given the vast sums at stake, ensuring that these resources reach their intended targets, rather than vanish into a black hole of inefficiency or corruption, is of paramount importance. Recognising this, the EU has since 2014 formally acknowledged institutional quality as a driver of the outcomes of its investment decisions (Barca, 2009; Barca et al., 2012; Camagni & Capello, 2015). However, while the principle is now established, empirical evidence on its practical application remains thin.

This paper aims to fill that gap by examining how corruption at the local level affects both the overall amount and the distribution of EU investment. Specifically, we investigate whether local governments tainted by corruption —defined as those found to have colluded with organised crime— receive less funding and, crucially, whether they systematically distort its allocation. To do this, we make use of a highly detailed and unique dataset: administrative records from the Italian Ministry of Interior, which document cases of municipal government dissolution[1] due to collusion with criminal organisations, as prescribed by Law 164/1991. This legislation —one of Europe's most robust anti-mafia laws— allows the national government to dissolve local administrations when direct or indirect links between elected officials and criminal organisations compromise institutional integrity. The law, in effect, provides a real-world stress test for the relationship between governance quality and public investment.

[1] City council dismissals apply to Italian municipalities, the lowest tier of government in Italy. The country operates under a three-tier system: the central government, 20 regional governments, and currently 7,918 municipalities (*comuni*), each responsible for local administration and public service delivery.

Italy is an ideal case study for several reasons. First, its *Opencoesione* dataset offers an unusually granular breakdown of EU-funded projects, including thematic objectives, beneficiary types, and exact geographical allocations. Such level of detail makes it possible to track the flow of funds with a degree of precision rarely available elsewhere. Second, Italy is one of the largest recipients of EU Cohesion Policy investment, making it a critical testing ground for the policy's effectiveness. Third, the country's stark economic divide —between a relatively prosperous North and a South that has long lagged behind— is inextricably linked to persistent disparities in institutional quality (Nifo, 2011). This economic fragmentation provides a natural setting for assessing how governance quality influences development outcomes.

For analytical clarity, we focus on the local governments of Southern Italian regions, where the intersection of weak institutions and organised crime is most pronounced. There are three main reasons for this. First, restricting the analysis to Southern Italy ensures that all municipalities under consideration operate within the same EU investment framework, avoiding potential distortions that might arise from comparing regions with vastly different economic structures. Second, limiting the study to the South helps prevent the North-South development gap from interfering with the comparability of the treated and control groups. Third, and most crucially, Southern Italy has a long history of institutional frailty, making it the ideal setting in which to study the relationship between corruption and EU funding.

Our empirical strategy exploits the natural discontinuities created by Italian municipal election cycles and city council dismissals. Following Di Cataldo and Mastrorocco (2022), we define municipalities as having "weak institutional quality" when they are governed by an administration that is ultimately dismissed for collusion with organised crime. By tracking municipalities from the election of a compromised government to its eventual dissolution, we construct a staggered analysis of institutional quality deterioration. This allows us to compare municipalities with and without corrupt institutions both before and after a clear institutional decline, using a combination of difference-in-differences and event study approaches.

The results paint a clear picture. Municipalities where local governments have been found to be colluding with criminal organisations receive, on average, 75% less EU funding than their non-corrupt counterparts. This reduction is not uniform across all sectors. The most affected areas are essential public services and local transportation, where infiltrated governments receive 56% less funding compared to non-infiltrated ones. The underlying mechanism appears to be a strategic choice by corrupt local governments: rather than attempting to secure larger EU-funded projects, which are subject to stricter Italian public procurement regulations designed to prevent criminal infiltration, they deliberately avoid them. The result? A distortion in investment patterns that ultimately depresses local economic growth.

The remainder of this paper is structured as follows: Section 2 reviews the relevant literature, placing our research within the broader discourse on institutions and development funding. Section 3 describes the data sources and methodology. Section 4 provides an overview of Italy's institutional landscape, detailing the process of city council dismissals and the structure of the EU Cohesion Policy. Sections 5 and 6 lay out our

research design and identification strategy. Section 7 presents our main findings and robustness checks. Section 8 conducts additional tests to assess the exogeneity of the relationship between EU funds and political collusion. In Section 9, we explore the mechanisms underlying our results and their economic consequences. Finally, Section 10 offers concluding thoughts and policy implications.

2 Quality of government and development funding

Our study straddles three strands of scholarly research, all converging on a single, uncomfortable truth: institutions matter, and when they fail, public money has a habit of vanishing into a bureaucratic void, or worse, into the pockets of the corrupt.

The first strand concerns the uneven impact of EU funds on regional development. Recent research is clear on this point: the effectiveness of EU funding is shaped, for better or worse, by the quality of local institutions (Rodríguez-Pose & Garcilazo, 2015; Di Caro & Fratesi, 2022). Some regions use these funds to drive innovation and growth, while others seem to absorb them with little to show for it. Rodríguez-Pose and Garcilazo (2015) highlight how regional government quality not only determines the effectiveness of EU investment but also influences how much additional funding is needed to achieve meaningful economic growth. From a policy perspective this means that stronger institutions yield better results, often at a lower cost. Barbero et al. (2022) take this further, using a dynamic spatial computable general equilibrium (CGE) model to demonstrate that even a modest 5% improvement in government quality can boost the impact of Cohesion Policy by up to 7%. Institutional quality also plays a crucial role in securing funding. Di Stefano and Resce (2025) highlight that regions with weaker institutions often miss out on funding despite greater need, while those with stronger institutions are more successful, even when their need is lower. Our study contributes to this debate by focusing on how local institutional quality affects not only the overall volume of EU funding but also its distribution among private beneficiaries, public entities, and local governments. While others have examined whether funds lead to economic growth, we ask a prior but equally fundamental question: where does the money actually go?

The second strand concerns the murky relationship between EU funds and institutional corruption. This is a topic of significant interest to policymakers but curiously underexplored in academia. What little research exists suggests that EU funding —while intended to reduce regional disparities— can also fuel corruption in weak institutional settings. Fazekas and Tóth (2016) use single-bidding tenders to estimate corruption risks in public procurement, concluding that EU funds exacerbate corruption across the 27 Member States. Mangiu-Pippidi (2019) reaches a similar conclusion for Greece, where EU investment has coincided with entrenched governance failures. In response to such risks, the European Commission has rolled out an “audit explosion” and introduced conditionalities to police fund allocation (Méndez & Bachtler, 2011). Yet enforcement remains patchy, and EU Member States tend to turn a blind eye to fraud and misallocation. After all, the primary goal

of national governments is often not to spend funds wisely but simply to *absorb* them, meeting budgetary targets while sidestepping awkward conversations about where the money ultimately ends up.

A third and closely related strand of research examines how institutional quality is measured and the extent to which corruption and transparency can be reliably quantified. Our study pushes this agenda forward by introducing a new approach to assessing local institutional quality, based on the transparency of Italian municipal governments. Rather than relying on broad, subjective governance indicators, we take a more direct approach; we use real-world instances of city council dismissals for mafia collusion as an institutional stress test.

Finally, our research contributes to the growing scholarly work on the influence of organised crime on public resource distribution. There is little doubt that mafia-style organisations have long recognised the financial opportunities presented by public investment. Barone and Narciso (2015) document how businesses operating in areas with a strong mafia presence are more likely to receive national subsidies. Pereira Dos Santos et al. (2021) link EU fund inflows to increased mafia activity in Sicilian municipalities. Meanwhile, Arbolino and Boffardi (2023) find that corruption and organised crime significantly delay the implementation of EU Cohesion Policy, raising questions about how much of the allocated funding ultimately translates into tangible development. Di Cataldo and Mastrorocco (2022) go further, showing that when local governments fall under mafia influence, public resources are skewed towards sectors that offer the greatest strategic advantages to criminal organisations.

Our study bridges these strands by examining the allocation strategies of colluding local governments. This approach is novel in that it does not merely assess how corruption affects the *amount* of EU funding a municipality receives but also investigates who ultimately benefits when local institutions operate under the shadow of organised crime. By doing so, we provide new insights into the mechanics of public fund allocation in environments where governance is compromised, extending our understanding of how corruption distorts economic development and weakens state capacity.

3 Data

European Cohesion Policy

Our primary data source for tracking European funds is *Opencoesione*, an extensive dataset covering payments and allocations for all Italian projects at least partially funded by the European Cohesion Policy. This dataset contains a goldmine of detail, offering granular insights into project timelines (start and end dates, payment schedules), geographic locations, co-financing from national and local authorities, and contributions from the private sector. Most crucially for our study, it identifies the specific beneficiaries of EU investments.

The dataset covers approximately 1.5 million projects across two EU programming cycles —2007–2013 and 2014–2020— allowing us to construct a rich municipal-year dataset for Southern Italian regions (Sicily, Calabria, Campania, Basilicata, and Puglia). By focusing on these regions, we track EU fund flows over the 2007–2020 period, providing a robust foundation for our empirical analysis.

Local corruption

To capture the extent of institutional failures —specifically, corruption at the local level— we turn to government decrees implementing Law 164/1991. This law, a cornerstone of Italy's anti-mafia legislation, grants the national government the authority to dissolve local governments found to be colluding with organised crime. These decrees provide an official record of city council dissolutions, offering not just a list of affected municipalities but also insights into the timing and nature of their collusion with criminal organisations.

We take this a step further by conducting a text analysis of these decrees, extracting additional information that helps refine our identification strategy. In essence, rather than relying on broad governance indicators or self-reported measures of corruption, we leverage concrete legal actions as a proxy for institutional quality, giving us a more direct and reliable measure of local governance failures.

Socioeconomics and demographic controls

To control for broader structural factors that might influence EU fund allocation, we compile all available time-varying municipal-level data, including population density, from the Italian Institute of Statistics (ISTAT). These variables help ensure that our analysis isolates the impact of corruption from the many other economic and demographic factors that differentiate municipalities.

Local, regional, and national policymakers characteristics

Finally, we incorporate individual-level data on municipal and regional government officials, sourced from the *Registry of Local and Regional Administrators* (*Anagrafe degli amministratori locali e regionali*), provided by the Italian Ministry of Interior. This dataset offers a detailed breakdown of policymakers' backgrounds, including educational attainment, birthplace, age, gender, and previous occupation.

To supplement this, we employ web scraping techniques to gather additional biographical data on national policymakers, which is available exclusively on the Italian Parliament's website. This additional layer of data allows us to account for the potential role of political leadership in shaping the use (or misuse) of EU funds.[2]

[2] Source: https://dati.camera.it/it/dati/.

4. Institutional setting

4.1 Local governments in Italy

Italian local government operates through a three-tiered structure: the mayor, the executive committee, and the city council. The mayor and the executive committee wield executive power, while legislative authority rests with the city council. Given the sheer breadth of their responsibilities, Italian mayors are among the most influential political figures in the country, making them a crucial proxy for assessing local institutional quality in our research.

Elected directly by the public for a five-year term, as established by Law 81/1993, mayors can serve a maximum of two consecutive terms. During their tenure, they oversee a strikingly broad portfolio, which includes public utilities (waste management, local roads, water supply), public housing, local transportation, and even police services. In short, their decisions shape the daily lives of residents and, as our study explores, the extent to which EU funds reach the intended beneficiaries or disappear into less productive channels.

4.2 EU Cohesion Policy

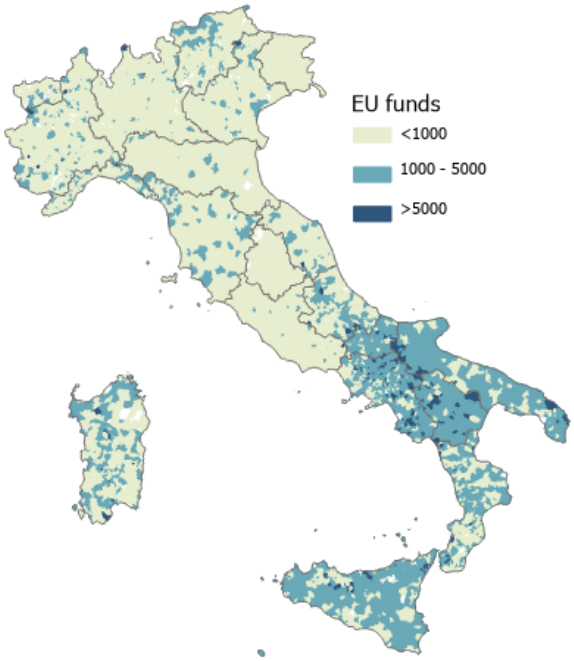
The EU Cohesion Policy is the European Union's flagship regional investment programme, designed to reduce disparities and promote economic, social, and territorial cohesion across member states. In financial terms, it is the largest EU policy, absorbing approximately one-third of the entire EU budget. For the 2021–2027 period, the EU has earmarked €392 billion to the policy, underlining its significance as a development tool.

The allocation of resources under the EU Cohesion Policy is based on a combination of discretionary decisions, shaped by political and institutional considerations, and a formula-driven framework. This framework classifies European regions into three tiers: more developed regions, transition regions, and less developed regions. The latter group receives the lion's share of the funds (European Commission, 2014).[3]

In line with this approach, EU investment in Italy is predominantly directed towards the country's southern municipalities, reflecting the longstanding economic divide between a developed North and a less developed South (Polverari, 2013). Figure 1 illustrates the total EU payments received by municipalities from 2007 to 2020. The different shades of green highlight that the southern regions —Calabria, Campania, Puglia, Sicily, and Basilicata— were the primary recipients of EU funds. In per capita terms, Basilicata and Puglia received the highest investment, with Basilicata securing €2,867 per capita and Puglia €1,737 per capita over the 14-year period.

[3] Less developed regions are those with a GDP per capita below 75% of the EU average. Transition regions fall between 75% and 90%, while more developed regions exceed 90%.

Figure 1: EU funds per capita across Italian municipalities

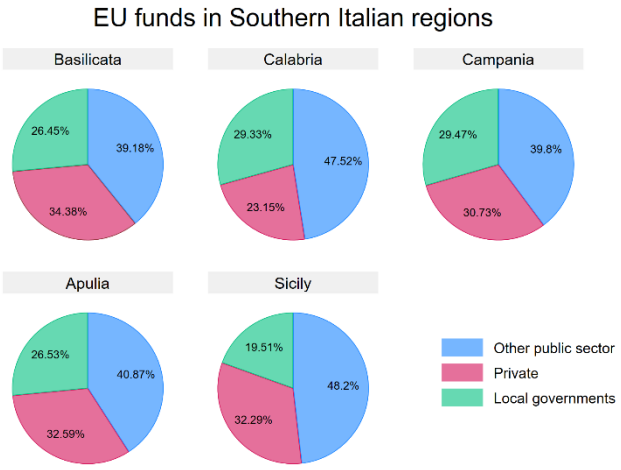


Note: The figure illustrates the per capita allocation of EU funds to each municipality from 2007 to 2020. Darker shades of green indicate higher funding levels, with the South securing the majority of funding.

To examine the potential influence of low-quality institutions on the allocation of EU investment, we begin by identifying all EU-funded projects directed towards private beneficiaries, including entrepreneurs, businesses, corporations, citizens, and societies. We then separately classify EU projects based on funds allocated to public beneficiaries, which include public authorities such as Italian regions, Italian ministries, mountain communities, public universities, and schools. Lastly, we focus on EU projects specifically designed for and managed by municipal governments. This classification allows us to thoroughly analyse the distribution of EU funds across different types of beneficiaries.

Figure 2 provides further insights into the distribution of EU funds among different types of beneficiaries in our sample. The data indicate that the public sector absorbed the largest share of EU resources, followed by the private sector and then local governments. The amounts allocated to the private sector and to local governments are remarkably similar. In Calabria, for instance, EU funds directed to private beneficiaries and to local governments amounted to €341 and €325 per capita, respectively. In Campania, the figures were €535 per capita for private beneficiaries and €496 per capita for local governments.

Figure 2: EU funds distribution across beneficiaries in Southern Italian regions



Note: The figure presents the total per-capita amount of EU funds received by southern regions from 2007 to 2020. It distinguishes between EU funds allocated to private beneficiaries, public beneficiaries, and local governments.

4.3 Local government dismissals for organised crime infiltration

To assess the extent of corruption within local governments, we examine cases where mafia-style organisations have successfully embedded themselves within municipal administrations. The decentralisation of public spending in the 1970s —intended to bring governance closer to local communities— had an unintended consequence: it made local governments an attractive target for organised crime. As decision-making power shifted away from the central state, criminal networks found it increasingly worthwhile to exert influence at the local level.

In response to these risks, Italy introduced Law 164/1991. This is a landmark anti-mafia measure granting the national government the authority to dissolve municipal administrations found to have direct or indirect links to criminal organisations. This represented a sharp escalation in enforcement: before 1991, incriminating evidence against a single official would result in their removal from office; after 1991, an entire local government can be disbanded if collusion with organised crime is suspected. Further details on the legal framework are provided in Appendix A.

While Law 164/1991 offers a robust mechanism for identifying corruption, it is not without its limitations. As with any legal process, there is a risk of both false positives (wrongful dismissals of city councils with no actual mafia ties) and false negatives (instances where collusion goes undetected, allowing compromised governments to remain in office). However, the risk of these errors significantly distorting our findings is minimal for several reasons.

First, Italian judicial authorities are notoriously thorough in their anti-mafia investigations. Dismissals under Law 164/1991 are based on detailed Ministry of Interior decrees, outlining the specific grounds for dissolution. Second, reversals of these dismissals are exceptionally rare. Between 2002 and 2020, only ten cases were overturned, suggesting a high degree of legal robustness in the enforcement process. Third, while undetected cases of collusion could introduce an attenuation bias —mistakenly including infiltrated municipalities in the control group— this would, if anything, lead us to underestimate the impact of corruption, rather than overstate it (Di Cataldo & Mastrorocco, 2022).

Table B4 in the Appendix provides a breakdown of city council dismissals due to collusion or corruption from 2002 to 2020. As expected, these dismissals are overwhelmingly concentrated in southern regions, long-standing strongholds of mafia activity. This geographic concentration is a key reason why our study focuses on municipalities in Sicily, Campania, Calabria, Puglia, and Basilicata: these are the regions where the intersection of organised crime and local governance has been most pronounced.

Figure B2 in the Appendix further illustrates the time distribution of city council dismissals for mafia infiltration. Besides the first years after the implementation of the law (1991-1993), a spike is visible in 2012. This surge occurred under Italy's technocratic government,[4] signalling a deliberate crackdown on mafia influence in local administration. Whether this reflected a genuine institutional shift or simply a short-term increase in enforcement remains an open question. What is clear is that criminal infiltration of local governments remains an enduring challenge, with tangible consequences for the allocation of public funds.

5. Research design

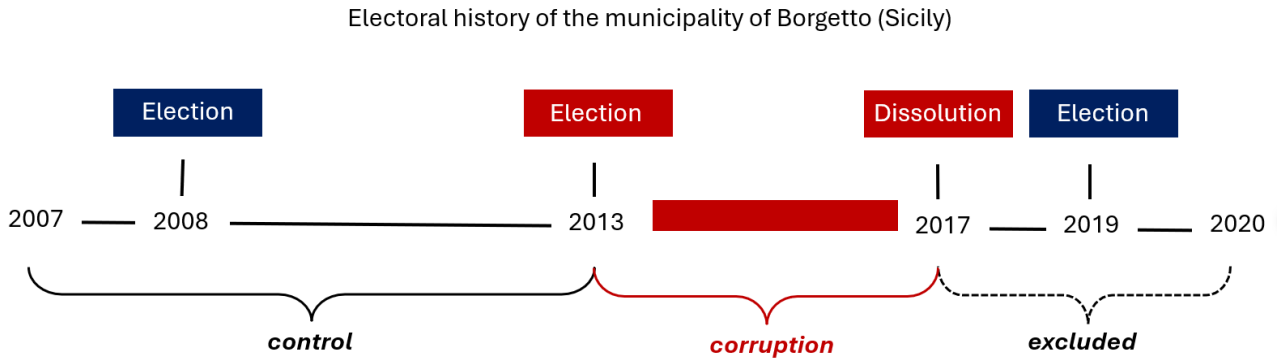
5.1 Definition of the treatment units

To analyse how local institutional quality evolves over time, we take advantage of two key time discontinuities: municipal elections and city council dismissals. Unlike national elections, municipal elections in Italy occur on a staggered schedule, with different municipalities voting at different times. The timing of city council dismissals, however, follows no predictable pattern, as it depends on anti-mafia investigations and subsequent legal proceedings. This creates useful variation for our analysis, allowing us to track changes in institutional quality over time. Appendix B, Figure B2, provides further details on the cases of city council dismissal for mafia infiltration over time.

[4] Between November 2011 and December 2012, Italy was led by a technocratic government under Mario Monti. The government was fundamentally appointed to tackle the country's sovereign debt crisis.

Following Di Cataldo and Mastrorocco (2022), we use these discontinuities to identify the onset and duration of institutional decline. Our approach assumes that when a municipality's government is dissolved, this signals a period of weak institutional quality stretching from the year of the previous election to the point of dismissal. To illustrate this process, we consider the case of Borgetto, a municipality in the province of Palermo, Sicily. Elected in 2013, Borgetto's local government was dismissed in 2017 under Law 164/1991 due to collusion with organised crime. A team of national commissioners then took control until the next election in 2019. In our municipal-year dataset, Borgetto is therefore classified as a 'treated' municipality for the period from 2013 to 2017.

Figure 3: Timeline of the treatment definition



Note: This figure provides an example of how we define the treatment period. The treatment period spans from the election of Borgetto's local government in 2013 to its dissolution in 2017. During this period, judicial authorities attested collusion between organised crime and members of the local government.

One challenge in this approach is that collusion between local institutions and organised crime may occur at any stage post-election. To address this, we analyse the Ministry of Interior decrees enforcing Law 164/1991, identifying terms that indicate organised crime's influence on elections.[5] This allows us to isolate cases where criminal organisations directly influenced electoral outcomes, thereby ensuring that we exclude dismissals due to other forms of mafia involvement.

Another methodological concern is how to handle municipalities that have experienced multiple city council dissolutions over time. To avoid biasing our estimates by including locations with long-standing governance failures, we restrict our analysis to municipalities that were dissolved for the first time after 2007. This decision significantly reduces the risk of historical institutional weakness distorting our results and ensures that the analysis only includes municipalities experiencing a first-time dismissal within the relevant period.

Figure 4 illustrates the geographical distribution of city council dissolutions for organised crime across the southern regions of Italy.

[5] Table B1 in the Appendix reports all the keywords used in the text analysis.

Figure 4: Dismissals of municipal governments due to organised crime

Note: This figure shows the geographical distribution of city council dismissals for mafia infiltration across our sample of municipalities from 1998 to 2020. Dismissals due to organised crime are primarily concentrated in southern Italian regions, with some exceptions. Dismissals are marked in violet if the motivations for mafia dismissal are related to infiltration taking place in coincidence with the local elections, as identify through our text analysis (65% of total). All other dissolutions for mafia infiltration are shown in red.

5.2 Definition of the control units

The control group consists of Southern Italian municipalities that have never been dissolved, as well as those that experienced enforcement actions but were not yet dissolved (for instance, municipalities flagged for irregularities before 2013 but whose governments remained intact, as seen in Figure 3 with Borgetto).

We exclude post-dissolution years from our control group for two key reasons. First, we omit the commissioning period —the interval in which central government commissioners temporarily take over local administration— since previous research has shown that this period has unique economic effects, making it fundamentally different from regular legislative terms (Acconcia et al., 2014; Daniele & Geys, 2015; Daniele & Dipoppa, 2023). Second, we exclude years following the commissioning period to avoid potential path dependence. As Berardi et al. (2024) suggest, policymakers in subsequent administrations may differ in both

behaviour and composition due to the legacy of prior dissolutions. Including these observations could contaminate the control group, as municipalities that experienced dismissal may follow distinct trajectories from those that never did.

5.3 Threats to identification

Our identification strategy must address several potential endogeneity concerns, given that local corruption cases are anything but randomly assigned. The first issue arises from the possible correlation between institutional quality and EU fund allocation. Di Cataldo and Renzullo (2024) and Banaszewska et al. (2021) suggest that EU funds do more than just finance projects; they may also shape electoral outcomes at both national and local levels, influencing which policymakers take office. Meanwhile, criminal groups are not passive observers of these financial flows. Municipalities receiving larger inflows of EU funds offer greater economic incentives for infiltration, making them attractive targets for organised crime. De Angelis et al. (2020) estimate that without EU funding, the annual rate of white-collar crimes in Southern Italy would decline by 4%. These factors introduce the risk of reverse causality, where EU fund allocation itself influences the presence of corruption rather than the other way around. To mitigate this issue, Section 8.2 demonstrates that treated and control units exhibited parallel trends in EU investment levels before the decline in institutional quality, ensuring that our estimates capture the effect of corruption rather than pre-existing differences in funding patterns.

A second challenge stems from our treatment definition. Our approach categorises corrupt local institutions as a binary variable: activated at election and deactivated upon government dissolution. While this simplification holds for many municipalities, it does not universally apply. Corruption is not always a sudden event; in most cases, it is a continuous presence, persisting before and beyond the electoral cycle. If corruption was already embedded before a government's formal election, this could affect the purity of our control group.

To address this, we employ event studies to test whether the effects of city council dismissals become visible in the years leading up to dissolution. In addition, we conduct two key robustness checks. First, we exclude from the control group any municipalities where the same mayor had already led the preceding legislature before the one that was eventually dissolved (Table C4 in Appendix C). Given the mayor's dominant role in Italian local governance, if the same individual was in power before and after the relevant election, it is unlikely that corruption began *only* with the new administration. Second, we perform a placebo analysis, randomly selecting treated units to ensure that there is no systematic effect of corruption on EU fund allocation that could be driven by unobserved factors rather than institutional quality itself.

6 Identification strategy

The main aim of this research is to examine how local corruption and collusion affect the distribution of EU funds among different beneficiaries. To do so, we exploit the staggered timing of municipal elections across Italy, treating them as a quasi-natural experiment.

At the core of our approach is a before-and-after comparison: we track the EU funding received by municipalities identified as having corrupt local institutions and compare it to those without, both prior to and after a documented decline in institutional quality. This strategy allows us to isolate the effect of collusion with criminal organisations on EU fund allocation while controlling for time-invariant differences between municipalities and broader economic trends affecting all local governments.

To achieve this, we employ a two-way fixed effects (TWFE) model, which accounts for unobserved heterogeneity at the municipal level —factors that could influence the allocation of EU funds— as well as year-specific effects that may impact all municipalities in a given period. By doing so, we assess how changes in institutional quality shape the flow of EU investments across different types of beneficiaries. The model takes the following form:

$$EU\_funds_{it} = \theta_1 + \beta_1 corrupt_{it} + (X_{it}\gamma`) + (P_{it}\theta`) + \alpha_i + \eta_t + \varepsilon_i \qquad (1)$$

where EU_funds_{it} represents EU Cohesion Policy investments in municipality *i* in year *t*. In our various specifications, this variable captures four key measurements of EU funding: a) the total amount of funding; b) the funds allocated to local governments; and those assigned to c) private and d) public beneficiaries. All these measurements are expressed in logarithmic per capita terms to adjust for outliers and variations in the size of Italian municipalities.[6]

The key explanatory variable, $corrupt_{it}$, is a binary indicator that takes a value of one for all years a municipality is governed by an administration that is later dissolved due to collusion with organised crime. This period runs from the year following the most recent municipal election until the year of the dissolution.

The coefficient of interest, β_1 , captures the average treatment effect on the treated (ATT) municipalities, that is the impact of declining institutional quality on EU fund allocation, under two key assumptions. First, the parallel trends assumption, which requires that, in the absence of a city council dissolution, municipalities — regardless of whether they experience corruption— would have followed similar EU funding trajectories.

[6] Tables B2 and B3 in the Appendix provide, respectively, a description of the main variables used in this study and their descriptive statistics.

Second, the assumption that treatment effects remain consistent across different groups of treated municipalities and over time.

To further refine our analysis, we control for a range of time-varying factors. The vector X_{it} includes municipal pre-taxable income —an important proxy for economic activity— and population density. The vector P_{it} captures political characteristics such as the average education level and age of policymakers.[7] To mitigate the influence of unobserved factors specific to each municipality and to adjust for year-specific shocks, we incorporate municipality (α_i) and year (η_t) fixed effects into our model. The model also clusters standard errors at the municipal level, ensuring consistency with the application level of our treatment.

Recent studies have highlighted a potential pitfall of TWFE models: they can produce misleading estimates if treatment effects vary across different municipalities or change over time (Athey & Imbens, 2018; Sun & Abraham, 2020). To address this concern, we supplement our analysis with an alternative approach using the Callaway and Sant'Anna (CSA) estimator (2021). This method provides more robust estimates by eliminating *forbidden comparisons* between groups that received treatment at different times, ensuring that our results remain valid even when treatment effects are not uniform across municipalities.

7 Results

7.1 Main results

Table 1 examines the effect of corruption within local governments on the distribution of EU funds, comparing municipalities affected by collusion between local politicians and organised crime with those that have no history of city council dismissals. The results are presented using both TWFE and CSA estimates.

Column 1 reports the impact of corruption on total EU fund allocations. The results suggest that, overall, municipalities with corrupt administrations received no significantly different total amount of EU funds compared to their non-corrupt counterparts. However, this is where the similarities end. Columns 2–4 break down EU funds by recipient type: private beneficiaries, public beneficiaries (excluding local governments), and local governments. A stark difference emerges in column 4: local governments tainted by collusion obtained substantially less funding than those without a record of criminal infiltration. This trend is consistent across both the CSA and TWFE models.

Quantitatively, municipalities with colluding local governments obtained 51% less funding under the TWFE model and an even more severe 75% reduction under the CSA model compared to municipalities without

[7] Our main results hold even when time-varying controls are excluded from the specification.

identified corruption. Interestingly, the allocation of EU funds to private and public beneficiaries (excluding local governments) remained largely unaffected (columns 2 and 3).

The key takeaway is that while overall EU funding levels may not have been directly affected by local corruption, who controls the funds was. Specifically, municipalities with corrupt local governments received significantly less funding for their own operations, suggesting that colluding officials deliberately avoided projects requiring stricter scrutiny or regulatory compliance.

Table 1: Corrupt local governments and EU funds

	Total EU funds	*EU funds to:*		
		Private beneficiaries	Public beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	0.059	0.213	0.033	-0.750**
	(0.201)	(0.329)	(0.226)	(0.310)
Observations	18,725	18,725	18,725	18,725
Panel B: TWFE				
Corrupt	-0.144	0.204	0.127	-0.511*
	(0.164)	(0.264)	(0.152)	(0.290)
Observations	18,819	18,819	18,819	18,819
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: The table analyses the impact of weak local institutional quality on the allocation of EU funds, distinguishing between total funds (column 1), funds allocated to private beneficiaries (column 2), funds allocated to public beneficiaries excluding local governments (column 3), and funds directed to local governments themselves (column 4). EU funds are always expressed as the logarithm of per capita values. CSA: Callaway & Sant'Anna (2021) estimator; TWFE: Two-Way Fixed Effects model. Corrupt: dummy variable taking value 1 for years in which a local government colludes with organised crime, from the election year until dissolution. Controls: population density, municipal income.

A thorough set of robustness tests reinforces these findings. First, we re-estimate the model using the CSA approach but apply an alternative control group. In our primary estimations, we use "not-yet-treated" municipalities as controls to maintain consistency with the TWFE analysis. However, given the significant number of never-treated municipalities that share similar socioeconomic and demographic characteristics with treated ones, we also test an alternative control group definition. As documented in Appendix C (Table C1), this alternative specification confirms that local government corruption leads to significantly lower EU fund allocations for municipal operations.

Second, we acknowledge that municipalities experiencing financial distress, serious legal violations, or political dismissals may differ significantly from our primary control group.[8] To account for this, we exclude legislatures impacted by other types of dismissals, ensuring a cleaner control sample. Appendix C, Tables C2 and C3, provide these alternative specifications. Table C2 excludes municipalities dismissed for financial distress and serious legal violations, while Table C3 further removes those dismissed due to political reasons. In both cases, the results hold: municipalities tainted by collusion garnered substantially less EU funding for local government operations than those with cleaner records.

While these alternative specifications strengthen our findings, they also come with trade-offs. Excluding municipalities dismissed for other reasons reduces the number of treated observations, limiting statistical power. Additionally, ensuring a control group free from all other forms of government failure makes it more challenging to test the parallel trends assumption, particularly when different types of dismissals occur close together in time.

A third robustness check addresses the concern that institutional quality may have already started deteriorating before an official election, thereby contaminating our control group. To test for this, we leverage detailed Ministry of Interior data on local politicians and exclude municipalities where the same mayor held office in both the preceding and dissolved legislatures. This ensures that our analysis is not affected by changes in government composition over time. The results, reported in Table C4 (Appendix C), remain consistent: colluding local governments received significantly less EU funding for municipal operations across all tested models.

Next, we exclude municipalities dismissed in 2012 to account for the national technocratic government's impact on local governance. The sharp increase in city council dissolutions that year suggests an exceptional enforcement effort, which could distort the broader pattern of dismissals. Removing these cases (Table C5, Appendix C) does not alter our conclusions. Once again, corrupt local governments still received significantly lower EU funding.

Finally, we examine the role of political alignment. The relationship between local and national or regional government coalitions may influence EU fund allocation (Bouvet & Dall'Erba, 2010; Bodenstein & Kemmerling, 2011; Dotti, 2016). If municipalities aligned with the national government systematically acquired more funds, this could confound our estimates. However, after controlling for political alignment in Tables C6 and C7, the results remain robust.

Taken together, these findings demonstrate a clear and consistent pattern: while corruption did not necessarily reduce the total amount of EU funding flowing into a municipality, it significantly reduced the resources

[8] Italy's legislative framework (*Testo Unico degli Enti Locali*) outlines several grounds for dismissing local governments beyond collusion with organised crime. As detailed in Appendix A, these fall into three main categories: financial mismanagement, serious legal violations, and political factors. Data from the Italian Ministry of Interior (2002–2020) provides insight into the frequency and nature of such dismissals, with descriptive statistics available in Appendix B.

allocated directly to local government operations. This suggests that colluding officials were actively steering clear of EU-funded projects subject to stricter oversight, potentially distorting local economic development as a result.

7.2 Heterogeneity in investment allocation

This section examines whether colluding local governments allocated EU Cohesion Policy funds differently from their non-colluding counterparts across various investment areas. By doing so, we assess which types of investment projects were most affected by the general decline in EU funding observed during episodes of local government corruption. We also explore whether, in distorting the allocation of EU funds, collusion between local governments and organised crime undermined local development. Existing research highlights that the positive impact of EU Cohesion Policy on economic growth is strongest when development projects align with the specific needs of the local environment and economy (Rodríguez-Pose & Fratesi, 2004; Di Cataldo & Monastiriotis, 2020; Scotti et al., 2022).

Table 2: Investment categories and local corruption

	Social services	Public services and transports	Construction and waste management	Innovation and R&D
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	-0.232	-0.561*	0.015	0.030
	(0.249)	(0.290)	(0.259)	(0.030)
Observations	18,725	18,725	18,725	18,725
Panel B: TWFE				
Corrupt	-0.228	-0.366*	0.053	0.0008
	(0.220)	(0.201)	(0.200)	(0.023)
Observations	18,819	18,819	18,819	18,819
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: The table analyses the impact of weak local institutional quality on the allocation of EU funds to local governments across different investment areas. All EU funds are expressed as logarithm of per capita values. CSA: Callaway & Sant'Anna (2021) estimator; TWFE: Two-Way Fixed Effects model. Corrupt: dummy variable taking the value of 1 during years in which a local government colludes with organised crime, from the election year until dissolution. Controls: population density, municipal income.

To identify the investment areas where colluding local governments received fewer EU funds than their non-colluding counterparts, we classify projects into four main categories: social services; public services and transport; construction and waste management; and innovation and R&D. A detailed breakdown of the project types included in each category is provided in Table B5.[9] As illustrated in Figure B3, most EU investments allocated to local governments were directed toward construction and waste management, followed by social services, and public services and transport.

We estimate Model 1 using a logarithmic transformation of EU funds per capita for each investment category as the outcome variable. Table 2 presents the results, showing that colluding local governments received significantly less funding for projects dedicated to local public services and transportation compared to non-colluding municipalities. Specifically, municipalities with corrupt local governments attracted 37% less funding in this category under the TWFE model and an even greater 56% reduction under the CSA model.

This category includes EU-funded projects related to public transport services, improvements to local transport infrastructure (e.g. roads, bridges, and railways), public security, and essential utilities such as water management, sewage systems, and street lighting. The results suggest that colluding local governments were willing to compromise on the provision of fundamental public services, while allocations to other categories remained largely unaffected. This raises a critical policy concern: if corrupt local governments systematically underinvested in essential public services, the long-term consequences could be far-reaching, impacting economic growth and the quality of life in affected municipalities.

8 Local corruption and EU funds – exogeneity checks

8.1 Parallel trends

The core findings of this study indicate a negative correlation between local governments with politicians engaged in collusion with organised crime and the allocation of EU resources, primarily due to a reduction in funding for public services projects.

A crucial assumption of our staggered difference-in-differences analysis is that, before any decline in institutional quality, EU investments should follow a parallel trend across municipalities, regardless of whether their local institutions are initially considered high or low quality. In other words, in the absence of collusion,

[9] This table lists the *Opencoesione* dataset keywords used to classify EU funds by project descriptions and titles. This method allows us to categorise 77.5% of projects, with 48.8% assigned to a single category and 21.5% linked to two categories.

the trajectory of EU investment should not differ systematically between municipalities with different levels of governance quality.

Italy's staggered municipal election cycle provides a useful framework for validating this assumption and allows us to examine the time dynamics of the treatment effect. We conduct an event study to test whether municipalities with more or less corrupt institutions exhibited any pre-treatment differences in EU fund inflows. The event study specification adopts the following form:

$$EU\_funds_{it} = \theta_1 + \sum_{\lambda=1}^{p} \beta_{-\lambda}\, c_{i,t-\lambda} + \sum_{\lambda=0}^{q} \beta_{+\lambda}\, c_{i,t-\lambda} + \alpha_i + \eta_t + \varepsilon_i \qquad (2)$$

where c_{it} is a dummy variable that equals one if municipality *i* has corrupt institutions, meaning its local government has been infiltrated by criminal organisations. *p* represents pre-treatment effects (before the deterioration of local institutional quality), while *q* stands for the post-treatment periods (after the deterioration of institutional quality).

In line with the institutional framework of Italian local governments, we define the pre-treatment period as the legislative term preceding a city council dismissal. The reference category is the year before the election of the local government that will later be dismissed for mafia infiltration. If the parallel trends assumption holds, the coefficients for the pre-treatment period should not be statistically significant, meaning that before collusion occurred, there were no systematic differences in EU fund allocation between colluded and non-colluded municipalities.

To ensure robustness, we estimate event study models while controlling for heterogeneity in treatment effects using the CSA estimator. In line with established research practices (e.g. Braghieri et al., 2022), we also supplement these event studies with alternative staggered difference-in-differences estimators, including OLS TWFE and Sun and Abraham (2021).

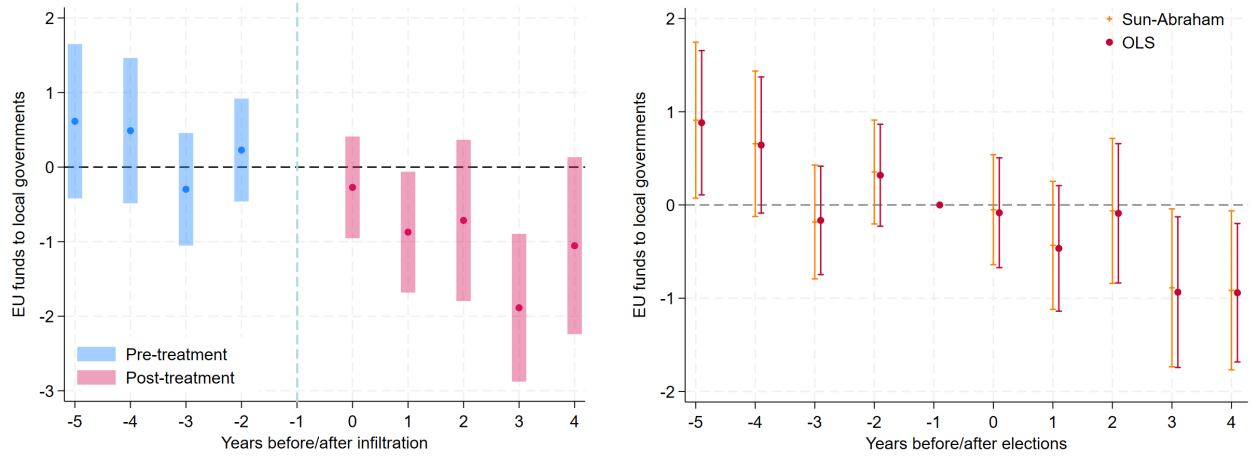
Figure 5 presents the event study estimates, divided into two panels. Panel A displays the results for the total amount of EU funds allocated to local governments, comparing estimates from CSA on the left with those from alternative estimators on the right. Panel B focuses specifically on the portion of EU funds allocated to public services projects, again contrasting the primary estimator with alternative methods.

The analysis of these panels supports the parallel trends assumption. Before collusion took place, EU fund inflows to local governments remained remarkably stable, with no statistically significant differences between municipalities with and without colluding officials. In the years leading up to treatment, the difference in EU fund allocations between the two groups is insignificant, suggesting that there were no systematic discrepancies in funding levels before institutional quality deteriorated. Moreover, across all event study models, there is no evidence of an anticipation effect. This means that municipalities with identified collusion did not experience a significant reduction in EU funding before the collusion was formally recognised.

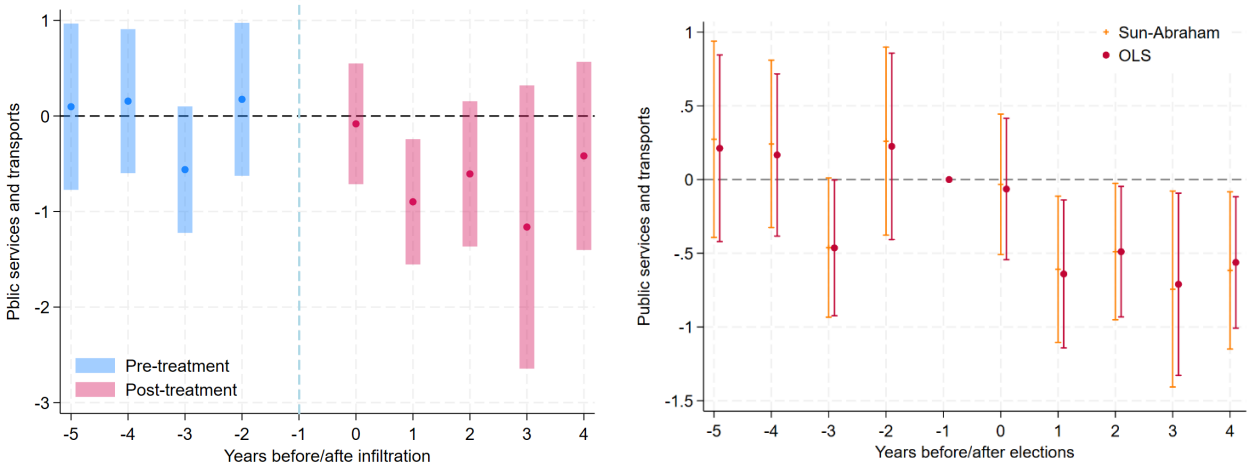
However, once collusion began, the post-treatment estimates indicate a statistically significant decline in EU fund allocations to municipalities involved in collusion. This finding suggests that once local institutions became infiltrated by organised crime, they received substantially fewer EU resources, particularly for projects managed directly by the local government. The negative impact remains consistent across multiple estimation techniques, even after controlling for potential confounding factors such as political alignment and financial distress.[10]

Figure 5: Event study estimates

Panel A: EU funds managed by the local government



Panel B: EU funds managed by the local government for public services and transports projects



Note: The figure presents the results of event studies (dynamic panel estimations) with a 95% confidence interval. *t-1* represents the pre-election year (reference category), while 0 corresponds to the election year of municipal governments later dissolved for mafia infiltration. Panel A shows event study results for the total amount of EU funds allocated to local governments, with estimates from CSA on the left and those from alternative estimators on the right. Panel B presents equivalent results for EU funds specifically allocated to infrastructure projects, comparing results from the main estimator with alternative methods.

[10] Additional event study estimates, excluding other types of dissolutions, are reported in Figure D1 and support these findings.

8.2 Placebo test

To further assess the reliability of our main results, we conduct a placebo test. First, we refine our dataset by removing legislatures affected by institutional bottlenecks. Next, we introduce fictitious treatment units by randomly selecting 30 municipalities from our sample and assigning a year in which these simulated city council dismissals occur. These municipalities are then classified as "treated" from the beginning of the legislature preceding the simulated dismissals.

We then apply Model (1) to analyse how EU funds were allocated based on these fictitious treatment units. This procedure is repeated 300 times for each outcome variable.

These placebo tests serve a critical role in demonstrating that our results are not driven by type II errors. If undetected cases of collusion between local politicians and organised crime are systematically present in our control group, our estimates should consistently identify a significant relationship between EU funds allocated to local governments and the randomly assigned treated units.

Figure D2 in the Appendix illustrates the results of these placebo exercises, plotting the estimated coefficients alongside their respective confidence intervals for each iteration. Non-significant estimates appear in blue, while significant ones are shown in red. In the vast majority of cases, the estimates are statistically insignificant, confirming that our findings are not an artefact of unobserved selection bias. Specifically, the proportion of significant cases is approximately 5% when analysing EU funds allocated to local governments and around 10% for EU funds dedicated to public services and transport. These results reinforce the robustness of our analysis, indicating that the observed reduction in EU fund allocation to local governments was indeed linked to the presence of collusion and not driven by unobserved confounders.

9 Mechanisms and consequences of local collusion and EU funds

9.1 Explaining mechanisms

Within the discretionary framework of the European Cohesion Policy, our findings underscore the critical role of local institutional quality in shaping the distribution of EU funds across beneficiaries and investment areas. The infiltration of organised crime into local governments appears to significantly reduce EU fund inflows to city councils, primarily by limiting investments in infrastructure projects.

Two mechanisms could explain this pattern. The first concerns the competence and capabilities of colluding politicians, while the second relates to the Italian regulatory framework aimed at preventing organised crime from exploiting public resources. We examine each in turn.

One possibility is that colluding politicians simply lacked the competence of their non-colluding counterparts. Daniele (2019) finds that organised crime affects political selection by discouraging high-human-capital politicians from entering politics. Similarly, Daniele and Geys (2015) show that dismissing city councils for collusion improved the quality of local politicians. If colluding politicians were, on average, less competent, then the lower allocation of EU funds to their municipalities may be partly due to poor administrative capacity rather than corruption itself.

To test whether the observed effects are driven by colluding politicians' lower competence levels, we compare the educational attainment of politicians in colluding versus non-colluding governments before and after collusion began. We use education as a proxy for competence and ability, following the approach of Besley et al. (2011). Our baseline model uses the educational attainment of mayors, city councillors, and executive committee members as the dependent variable, estimating effects using both TWFE and CSA methods. The results, presented in Table D1, reveal no significant difference in educational attainment between politicians from colluding local governments and those never involved in collusion. This suggests that the lower EU fund allocation observed in colluding municipalities was not driven by differences in competence.

Turning to the second mechanism, a growing body of research suggests that organised crime operates with strategic efficiency in various economic sectors (Daniele & Dipoppa, 2023).[11] Consistent with this, the observed negative relationship between colluding local governments and EU fund allocation may stem from a deliberate effort to avoid regulatory scrutiny. Colluding politicians possibly preferred EU projects that attracted less oversight, thereby minimising the risk of exposure.

This strategy is closely linked to the Italian regulatory framework, particularly the Antimafia Information Law, which seeks to prevent organised crime from capturing public subsidies. Under this law, all public subsidies exceeding €150,000 awarded to private entities require anti-mafia certification.[12] Daniele and Dipoppa (2023) highlight how mafia-controlled firms deliberately request subsidies below this threshold to avoid stringent checks.

These firms strategically keep their subsidy requests below the threshold to avoid the stringent checks associated with higher-value projects. Building on this evidence, we investigate for the first time whether infiltrated local governments exhibited similar behaviour by deliberately selecting EU projects that were less likely to trigger anti-mafia regulatory scrutiny. While local governments were not directly subject to the Antimafia Information Law when applying for EU funds, they had to issue later public procurement tenders

[11] Mirenda et al. (2022) show that organised crime can boost the revenues of infiltrated firms, though at the expense of their financial stability, to maximise economic gains. Similarly, Le Moglie and Sorrenti (2022) find that economic activities in areas with a strong organised crime presence display greater resilience to shocks, such as financial crises. Castelluccio and Rizzica (2023) further highlight the strategic nature of organised crime, noting how it exploited the COVID-19 crisis to infiltrate firms more easily.

[12] The Antimafia Information Law, introduced in 1965, was the first legislation designed to prevent firms linked to organised crime from exploiting government subsidies and public resources. It required authorities to screen subsidy applicants for criminal ties. The law underwent major revisions in 1994 and 1998, with further strengthening in 2013 to counter evolving criminal tactics. The 2013 update also standardised the application threshold, lowering it from €154,937 to €150,000.

in accordance with Italian regulations to fulfil their objectives. This requirement, combined with the staggered nature of EU project calls —varying across years and regions during the programming cycle— created opportunities for strategic avoidance.

To formally test this mechanism, we examine whether colluding local governments systematically avoided projects above the anti-mafia threshold, comparing their behaviour before and after infiltration with that of non-infiltrated municipalities. Specifically, we estimate Model 1 using the number of projects exceeding the €150,000 threshold as the outcome variable.

Table 3: EU projects below public tenders' threshold and growth of income

	Log projects per capita above €150,000	Projects above €150,000	Log public services projects per capita above €150,000	Public services projects above €150,000
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	-0.141***	-0.938***	-0.059***	-0.254**
	(0.044)	(0.253)	(0.018)	(0.109)
Observations	18,725	18,725	18,725	18,725
Panel B: TWFE				
Corrupt	-0.138***	-0.718**	-0.063***	-0.165
	(0.031)	(0.284)	(0.017)	(0.121)
Observations	18,819	18,819	18,819	18,819
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: This table examines whether governments colluding with organised crime are less likely to select projects exceeding €150,000, which are subject to stricter scrutiny. CSA: Callaway & Sant'Anna (2021) estimator; TWFE: Two-Way Fixed Effects model. Corrupt: dummy variable taking value 1 during years in which local governments colluded with organised crime, from the election year until dissolution. Controls: population density, municipal income.

The results in Table 3 indicate that colluding local governments were significantly less likely to secure EU projects exceeding €150,000, which were subject to stricter scrutiny. On average, they received 13% fewer projects above this threshold in the TWFE model and 14% fewer in the CSA model. These findings hold across different estimation methods (Panel A vs. Panel B) and across various outcome measures (columns 1 vs. 2).

This pattern is particularly pronounced in the allocation of funds for public services and transport projects. Colluding local governments secured significantly fewer EU funds for these types of projects by avoiding those exceeding the anti-mafia regulation threshold. The reduction in such projects is estimated at 6.1% in the TWFE model and 6.4% in the CSA model.

These results are further validated by event study estimates and two placebo tests.

First, the event study confirms that the parallel trends assumption holds. As shown in Figure C1 in the Appendix, the trends in the total number of projects exceeding €150,000, as well as those allocated to public services and local transport, declined significantly after infiltration began. This suggests that the reduction in large-scale projects was a direct consequence of collusion, rather than pre-existing differences in local governance.

Second, the first placebo test examines alternative thresholds for EU project engagement. If the observed gap between colluding and non-colluding local governments was solely due to strategic behaviour to avoid anti-mafia regulations, then there should be no significant difference in the number of smaller projects, which were not subject to anti-mafia scrutiny. Table C8 in the Appendix confirms this: there was no statistically significant gap in the number of EU projects allocated to local governments below the €150,000 threshold.

Finally, the second placebo test examines city council dismissals for financial mismanagement and serious legal violations.[13] If the lower allocation of EU funds observed in colluding municipalities was due to criminal infiltration, rather than general administrative failure, then dismissals for these alternative reasons should not produce the same effect. We test this by replacing the corruption dummy in Model 1 with two dummy variables indicating whether a municipality was dissolved due to financial mismanagement or serious legal violations.

In both cases, the treatment period spans from the year following the previous election to the year of dissolution. As shown in Table C9 in the Appendix, there was no significant gap in EU fund allocations before or after dismissals for financial mismanagement or serious legal violations. This further reinforces our core conclusion: the strategic avoidance of high-value projects was specific to local governments colluding with organised crime, rather than a general feature of struggling or mismanaged municipalities.[14]

9.2 Economic consequences

Having established that local governments colluding with criminal organisations received lower shares of European funds —particularly for public services and transport projects— a key question arises: did this strategic behaviour have any impact on local economic growth?

[13] Dismissals for financial mismanagement occur not only in cases of severe fiscal distress but also due to non-compliance with legal requirements for municipal budget management. In contrast, dismissals for serious legal violations arise when a mayor is indicted for a major crime (Legislative Decree 235/2012), making them ineligible to hold office even before a final conviction. Data on both types of dismissals, provided by the Italian Ministry of Interior, cover the period 2002–2020 and most Italian regions, excluding Valle d'Aosta, Friuli Venezia Giulia, and Sardinia. The dataset details the reasons for city council dismissals, allowing us to distinguish between financial mismanagement and legal violations. A full overview of dismissal cases is in Appendix A, with descriptive statistics in Appendix B.

[14] A key limitation of these findings is the exclusion of dissolutions linked to the career progression of Italian mayors into higher government positions. This raises the possibility that some cases classified as dismissals for serious legal violations may, in fact, be tied to political career advancements, potentially affecting the analysis. While our dataset excludes instances where a mayor leaves office for election to regional or national government, it does not account for other public appointments.

A substantial body of literature underscores the critical role of infrastructure investment, particularly in local transport networks, as a driver of regional economic growth (Bronzini & Piselli, 2009; Crescenzi & Rodriguez-Pose, 2012; Trew, 2020). However, the extent to which infrastructure contributes to local development is shaped by various mediating factors, including regional comparative advantage (Di Cataldo & Monastiriotis, 2020), the quality of local institutions (Crescenzi et al., 2016), and political incentives (Fajgelbaum & Schaal, 2020).

While assessing the economic consequences of collusion is not the primary objective of this study, we provide preliminary evidence on whether the strategic behaviour of colluding politicians —particularly their avoidance of larger, more ambitious EU-funded projects— has had negative repercussions for local economic development.

To explore this, we construct an indicator measuring annual growth in pre-taxable income per inhabitant at the municipal level. While this is an imperfect proxy for economic growth, it remains the only available indicator that allows us to track the economic trajectory of municipalities while preserving the panel structure of the dataset.

We replicate our model using this growth indicator as the dependent variable. The results, presented in Table D2, reveal a significant decline in local economic growth during periods of governance by infiltrated administrations. The trajectory of local income growth, illustrated in Figure D3 in the Appendix, further confirms the absence of pre-trends, strengthening the causal interpretation of the results.

These findings suggest that the substantial reduction in EU fund absorption, driven by the selection of less ambitious projects to evade anti-mafia scrutiny, had negative implications for local economic development. In other words, the strategic behaviour of colluding politicians —deliberately steering clear of larger, more closely monitored EU projects— may have contributed to depress local growth rates.

While this evidence is not exhaustive, it aligns with a well-established body of research documenting the detrimental effects of mafia infiltration on economic development (Pinotti, 2015; Mocetti & Rizzica, 2023). By distorting the allocation of public resources and discouraging investment in critical infrastructure, colluding administrations may not only have weakened the effectiveness of EU funds but also contributed to long-term economic stagnation in affected municipalities.

10 Conclusions

This research provides the first systematic analysis of how local corruption —measured through instances of municipal governments colluding with organised crime— distorts the allocation of EU funds. While much has been written about the role of institutional quality in economic development, our study goes further by disentangling the mechanisms through which corruption has shaped the distribution of EU resources. We distinguish between funds allocated to private beneficiaries, public entities, and local governments themselves, offering a nuanced view of how corrupt administrations behave in the face of regulatory constraints.

With the EU Commission dedicating a substantial share of its budget —one-third in the 2021–2027 period— to Cohesion Policy, our research is particularly timely. It helps identify whether these funds are being misdirected, potentially benefiting organised crime and undermining the policy's broader goal of promoting regional economic development. By leveraging high-quality administrative data on city council dismissals under Italy's anti-mafia legislation, we construct a dynamic measure of local corruption. Our methodological approach, which employs a staggered differences-in-differences model alongside extensive robustness checks, allows us to mitigate endogeneity concerns and isolate the causal impact of corruption on EU fund allocation.

Our findings demonstrate that corruption within local governments has played a decisive role in determining how EU funds are allocated. Municipalities with colluding politicians received significantly less funding, particularly for transport infrastructure and essential public services, compared to those with cleaner institutions. Moreover, corrupt local governments deliberately avoided EU projects above a certain financial threshold, likely with the aim of evading the scrutiny of Italian anti-mafia regulations designed to prevent criminal infiltration into public procurement. This behaviour was not merely an administrative anomaly; it also depressed local economic performance by distorting competition and reducing investment in critical infrastructure.

These insights carry major policy implications. First, they indicate that Italy's public procurement regulations have been effective. They have served as a deterrent, preventing EU funds from being siphoned off by colluding local governments. However, they also reveal the adaptive efficiency of organised crime, which strategically positioned itself below regulatory thresholds to continue benefiting from public investment while avoiding oversight (Le Moglie & Sorrenti, 2022; Mirenda et al., 2022; Daniele & Dipoppa, 2023). Second, the results expose a more insidious consequence: colluding politicians distorted the competitive landscape, awarding projects based on criminal interests rather than public welfare. This behaviour has long-term consequences for local development, as areas governed by corrupt politicians experienced slower economic growth and reduced infrastructure investment.

Ultimately, our study highlights the critical importance of local institutional quality not only in enhancing the effectiveness of EU Cohesion Policy but also in ensuring the fair and efficient allocation of public resources. The implications for EU policymakers are clear: stronger oversight mechanisms are needed to prevent

investment from falling prey to corruption. This is particularly crucial in regions such as Southern Italy, where EU funds are a lifeline for economic development and a key instrument for reducing regional disparities. Strengthening monitoring systems and enforcement mechanisms will be essential to protect European —or, for that sake, any type of public— investment, ensuring that these resources serve their intended purpose, which is no other than to promote growth, reduce inequality, and improve public infrastructure for the communities that need it most.

Acknowledgements:

We thank Riccardo Crescenzi, Paola Profeta, Francesca Zantomio and all participants to the Cañada Blanch Lent Fellows Lecture 2023 at LSE, the 62nd ERSA Congress in Alicante, the XXXIV SIEP Conference in L'Aquila, the 2023 AISRe conference in Naples, the 65th Annual Conference of the Italian Economic Association, the 22nd CIEP Conference in Shanghai for useful comments and suggestions. All errors are our own. Di Cataldo: marco.dicataldo@unive.it , Renzullo: e.renzullo@lse.ac.uk , Rodriguez-Pose: a.rodriguez-pose@lse.ac.uk

References

Acemoglu, D., & Dell, M. (2010). Productivity differences between and within countries. *American Economic Journal: Macroeconomics*, *2*(1), 169-188.

Acconcia, A., Corsetti, G., & Simonelli, S. (2014). Mafia and public spending: Evidence on the fiscal multiplier from a quasi-experiment. *American Economic Review*, *104*(7), 2185-2209.

Athey, S., Imbens, G. W., & Wager, S. (2018). Approximate residual balancing: debiased inference of average treatment effects in high dimensions. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, *80*(4), 597-623.

Arbolino, R., & Boffardi, R. (2023). Organised crime and corruption: what are the consequences for Italian Cohesion Policy investments?. *Regional Studies*, 1-16.

Ardizzi, G., Petraglia, C., Piacenza, M., Schneider, F., & Turati, G. (2014). Money laundering as a crime in financial sector: Anew approach to quantitative assessment, with an application to Italy. *Journal of Money, Credit and Banking*, *46*(8), 1555-1590.

Banaszewska M., & Bischoff I. (2021). Grants-in-aid and election outcomes in recipient jurisdictions: The impactof EU funds on mayoral elections in Poland. *European Journal of Political Economy*, 68, 101993

Barbero, J., Christensen, M., Conte, A., Lecca, P., Rodríguez-Pose, A., & Salotti, S. (2023). Improving Government Quality in the Regions of the EU and its System-Wide Benefits for Cohesion Policy. *JCMS: Journal of Common Market Studies*, *61*(1), 38-57.

Barone, G., & Narciso, G. (2015). Organised crime and business subsidies: Where does the money go?. *Journal of Urban Economics*, *86*, 98-110.

Barca, F. (2009). *An agenda for a reformed cohesion policy*: *A place-based approach to meeting European Union challenges and expectations*. Report to Commissioner for Regional Policy. Brussels: European Commission.

Barca, F., McCann, P., & Rodríguez-Pose, A. (2012). The case for regional development intervention: place-based versus place-neutral approaches. *Journal of regional science*, *52*(1), 134-152.

Becker, S. O., Egger, P. H., & von Ehrlich, M. (2013). Absorptive capacity and the growth and investment effects of regional transfers: A regression discontinuity design with heterogeneous treatment effects. *American Economic Journal: Economic Policy*, *5*(4), 29-77.

Baraldi, A. L., Papagni, E., & Stimolo, M. (2024). Neutralizing the tentacles of organized crime. Assessment of the impact of an anti-crime measure on mafia violence in Italy. *Journal of Economic Behavior & Organization*, *223*, 57-85.

Besley, T., Montalvo, J. G., & Reynal-Querol, M. (2011). Do educated leaders matter?. *The Economic Journal*, *121*(554), F205-227.

Bracco, E., Lockwood, B., Porcelli, F., & Redoano, M. (2015). Intergovernmental grants as signals and the alignment effect: Theory and evidence. *Journal of Public Economics*, *123*, 78-91.

Braghieri, L., Levy, R. E., & Makarin, A. (2022). Social media and mental health. *American Economic Review*, *112*(11), 3660-3693.

Bronzini, R., & Piselli, P. (2009). Determinants of long-run regional productivity with geographical spillovers: The role of R&D, human capital and public infrastructure. *Regional science and urban economics*, *39*(2), 187-199.

Callaway, B., & Sant'Anna, P. H. (2021). Difference-in-differences with multiple time periods. *Journal of Econometrics*, *225*(2), 200-230.

Camagni, R., & Capello, R. (2015). Rationale and design of EU cohesion policies in a period of crisis. *Regional Science Policy & Practice*, *7*(1), 25-49.

Castelluccio, M., & Rizzica, L. (2023). *Mafia infiltrations in times of crisis: Evidence from the Covid-19 shock* (No. W23/28). Institute for Fiscal Studies.

Crescenzi, R., Di Cataldo, M., & Rodríguez-Pose, A. (2016). Government quality and the economic returns of transport infrastructure investment in European regions. *Journal of Regional Science*, *56*(4), 555-582.

Daniele, G., & Dipoppa, G. (2023). Fighting Organised Crime by Targeting their Revenue: Screening, Mafias and Public Funds. *Journal of Law, Economics, and Organization* 39(3), 722-746.

Daniele, G. (2019). Strike one to educate one hundred: Organized crime, political selection and politicians' ability. *Journal of Economic Behavior & Organization*, 159, 650-662.

Daniele, G., & Geys, B. (2015). Organised crime, institutions and political quality: Empirical evidence from Italian municipalities. *The Economic Journal*, *125*(586), F233-F255.

De Angelis, I., de Blasio, G., & Rizzica, L. (2020). Lost in corruption. Evidence from EU funding to Southern Italy. *Italian Economic Journal*, *6*, 355-377.

Deiana, C., and Geraci, A. (2021) Are Wind Turbines a Mafia Windfall? The Unintended Consequences of Green Incentives, 89 *Regional Science and Urban Economics,* 103691.

Di Caro, P., & Fratesi, U. (2022). One policy, different effects: Estimating the region-specific impacts of EU cohesion policy. *Journal of Regional Science*, *62*(1), 307-330.

Di Cataldo, M., & Mastrorocco, N. (2022). Organised crime, captured politicians, and the allocation of public resources. *The Journal of Law, Economics, and Organization*, *38*(3), 774-839.

Di Cataldo, M. & Renzullo, E. (2024). EU Money and Mayors: Does Cohesion Policy affect local electoral outcomes? Ca'Foscari Department of Economics Working Paper 02/2024.

Di Stefano, R., & Resce, G. (2025). The determinants of missed funding: Predicting the paradox of increased need and reduced allocation. *Journal of Economic Behaviour & Organization*, (231).

Fajgelbaum, P. D., & Schaal, E. (2020). Optimal transport networks in spatial equilibrium. *Econometrica*, *88*(4), 1411-1452.

Galletta, S. (2017). Law enforcement, municipal budgets and spillover effects: Evidence from a quasi-experiment in Italy. *Journal of Urban Economics*, *101*, 90-105.

Le Moglie, M., & Sorrenti, G. (2022). Revealing "mafia inc."? Financial crisis, organised crime, and the birth of new enterprises. *Review of Economics and Statistics*, *104*(1), 142-156.

Mirenda, L., Mocetti, S., & Rizzica, L. (2022). The economic effects of mafia: firm level evidence. *American Economic Review*, *112*(8), 2748-2773.

Mocetti, S., & Rizzica, L. (2023). Organised crime in Italy: An economic analysis. *Italian Economic Journal*, 1-22.

Nifo, A., & Vecchione, G. (2015). Measuring institutional quality in Italy. *Rivista economica del Mezzogiorno*, *29*(1-2), 157-182.

Pereira dos Santos, J., Tavares, J., & Thomas, M. (2021). Does Organised Crime Attract EU Funding? Evidence from the Sicilian Mafia. *CEPR Discussion Paper No. DP16732*.

Pinotti, P. (2015). The economic costs of organised crime: Evidence from Southern Italy. *The Economic Journal*, *125*(586), F203-F232.

Rodríguez-Pose, A. (2013). Do institutions matter for regional development?. *Regional Studies*, *47*(7), 1034-1047.

Rodríguez-Pose, A., & Di Cataldo, M. (2015). Quality of government and innovative performance in the regions of Europe. *Journal of Economic Geography*, *15*(4), 673-706.

Rodríguez-Pose, A., & Garcilazo, E. (2015). Quality of government and the returns of investment: Examining the impact of cohesion expenditure in European regions. *Regional Studies*, *49*(8), 1274-1290.

Solé-Ollé, A., & Sorribas-Navarro, P. (2008). The effects of partisan alignment on the allocation of intergovernmental transfers. Differences-in-differences estimates for Spain. *Journal of Public Economics*, *92*(12), 2302-2319.

Sun, L., & Abraham, S. (2021). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. *Journal of Econometrics*, *225*(2), 175-199.

Trew, A. (2020). Endogenous infrastructure development and spatial takeoff in the first industrial revolution. *American Economic Journal: Macroeconomics*, *12*(2), 44-93

Appendix A: City council dismissals

Collusion of local politicians with organised crime (Law 164/1991)

Italy's move toward fiscal federalism in the 1970s, which transferred significant spending powers from the central government to local authorities, had an unintended consequence: it lowered the cost of political infiltration for organised crime. By the 1980s and early 1990s, mafia involvement in local economies had intensified, accompanied by a surge in mafia-related killings. These developments prompted the Italian government to introduce a series of anti-mafia policies aimed at restoring institutional integrity.

Among these measures, Law 164/1991 stands out as one of the strictest anti-mafia policies ever introduced. This law grants the national government the authority to dissolve municipal administrations if there is evidence of direct or indirect links between elected officials and organised crime, compromising the normal functioning of local institutions. Unlike pre-1991 regulations, which allowed for the removal of individual officials, this law permits the outright dissolution of entire municipal governments when criminal infiltration is detected.

The enforcement of this policy follows a structured, multi-stage process:

1. Initial Investigation: The police or magistrates notify the provincial prefect of potential mafia infiltration in a municipal government. These investigations are often based on intelligence gathered through broader criminal inquiries that may not be directly related to the local administration.

2. Formation of an Inquiry Commission: The prefect appoints a commission composed of officials from the *Polizia di Stato*, *Carabinieri*, *Guardia di Finanza*, and the vice-prefect. This commission is given up to three months to conduct a detailed investigation into the municipality's governance.

3. Prefect's Evaluation: After the commission submits its findings, the prefect has 45 days to assess the report and decide whether to recommend dissolution.

4. Ministerial Review: The Minister of Interior evaluates the case, determining if the evidence is sufficient to justify dismissal. If so, a formal request for dissolution is submitted to the President of the Republic.

5. Final Approval: The President of the Republic, in consultation with the Council of Ministers, issues a formal decree dissolving the local government.

This multi-layered approval process ensures that city council dissolutions are subject to rigorous legal scrutiny, reinforcing Italy's commitment to safeguarding institutional integrity against organised crime.

Other types of dissolutions

While Law 164/1991 targets mafia infiltration, city councils in Italy can also be dissolved under various other circumstances. These include legal, political, and financial reasons, as outlined below:

- Death or Serious Impediment of the Mayor: Under Article 141 of the Italian Legislative Decree (TUEL), a local government can be dissolved if the mayor dies or suffers from a severe illness that prevents them from fulfilling their duties.
- Forfeiture of the Mayor (*Decadenza del Sindaco*): Mayors can be removed if they are convicted of serious crimes or placed under preventive measures for mafia association, as established by Legislative Decree No. 235/2012. Politically, forfeiture can also occur if a mayor accepts another elective or governmental position deemed incompatible with local office.
- Ineligibility of the Mayor (*Incandidabilità del Sindaco*): A mayor is declared ineligible if they were already convicted of serious crimes or placed under preventive anti-mafia measures before their election, making them legally unfit to hold office.
- Removal of the Mayor (*Rimozione del Sindaco*): A mayor may be forcibly removed for violating the Constitution, engaging in persistent legal infractions, or failing to maintain public order. Non-compliance with urban waste management regulations is also grounds for dismissal.
- Impossibility of Council Replacement (*Impossibilità di Surroga*): If the resignation of multiple city council members prevents the replacement of vacant seats, making it impossible for the council to function, the municipal government is dismissed.
- Mayor's Resignation (*Dimissioni del Sindaco*): The voluntary resignation of a mayor leads to the automatic dissolution of the entire local government.
- Motion of No Confidence (*Mozione di Sfiducia*): If a motion of mistrust is passed by an absolute majority of city council members through a roll-call vote, the mayor is removed, and the government is dissolved.
- Mass Resignation of Councillors (*Dimissioni Contestuali della Maggioranza dei Consiglieri*): If the majority of municipal councillors resign simultaneously, the city council is automatically dissolved, effectively functioning as a collective no-confidence vote against the administration.
- Financial Crisis (*Situazioni di Crisi Finanziaria*): Local governments that fail to meet financial obligations, such as approving municipal budgets or implementing financial rebalancing measures, face dismissal due to insolvency.

Appendix B: Descriptive statistics

Table B1: keywords identifying cases of infiltration starting with local elections

Keywords	
Italian	Sostegno elettorale, voto di scambia, competizione elettorale, campagna elettorale, competizione politica, violenza ad elettori, propaganda elettorale.
English	Electoral support, vote trading, electoral competition, electoral campaign, political competition, violence against voters, electoral propaganda.

Note: the table lists the keywords used in the text analysis of Ministry of Interior's decrees enforcing Law 164/1991. For each detected case of collusion between mafia members and local politicians, the decrees detail the mechanisms of mafia infiltration and the reasons that induced judicial authorities to impose the dissolution of the local government. These keywords help identifying cases where organised crime has influenced local politicians' behaviour since their election.

Table B2: Variables definition and source

Variable	Description	Source
Panel A: EU funds variables		
All EU funds	Logarithm of the total amount of EU investment in per capita terms	*Opencoesione*
Private beneficiaries	Logarithm of EU investment allocated to private beneficiaries	*Opencoesione*
Public beneficiaries	Logarithm of EU investment allocated to public beneficiaries	*Opencoesione*
Local governments as beneficiaries	Logarithm of EU investment allocated to local governments	*Opencoesione*
Social services	Logarithm of EU investment allocated to local governments for social services	*Opencoesione*
Public services and transports	Logarithm of EU investment allocated to local governments for public services and transports	*Opencoesione*
Construction and waste management	Logarithm of EU investment allocated to local governments for construction and waste management	*Opencoesione*
Innovation and R&D	Logarithm of EU investment allocated to local governments for research and development	*Opencoesione*
Panel B: Quality of institutions		
Collusion with organised crime	Dummy variable equal to one from the year of the previous election until the one of the city council dissolution due to the enforcement of Law 164/1991	Ministry of Interior
Panel C: Other type of dismissals		
Financial mismanagement	Dummy variable equal to one from the year of the previous election until the one of the city council dissolution due to financial mismanagement	Ministry of Interior
Serious law violation	Dummy variable equal to one from the year of the previous election until the one of the city council dissolution due to serious violation of the law	Ministry of Interior
Political dismissals	Dummy variable equal to one from the year of the previous election until the one of the city council dissolution due to political reasons	Ministry of Interior
Panel D: Economic and demographic variables		
Population density	Logarithm of population density	National Institute of Statistics
Municipal pre taxable income	Logarithm of municipal pre-taxable income per capita	Ministry of Economy and Finance
Growth	Annual growth of municipal pre-taxable income per capita	Ministry of Economy and Finance

Note: The table provides a description of the main variables used in this work, their explanations, and their respective sources. Column 1 lists the variable names, Column 2 provides detailed explanations of each variable, and Column 3 identifies the data source for each variable.

Table B3 – Descriptive statistics

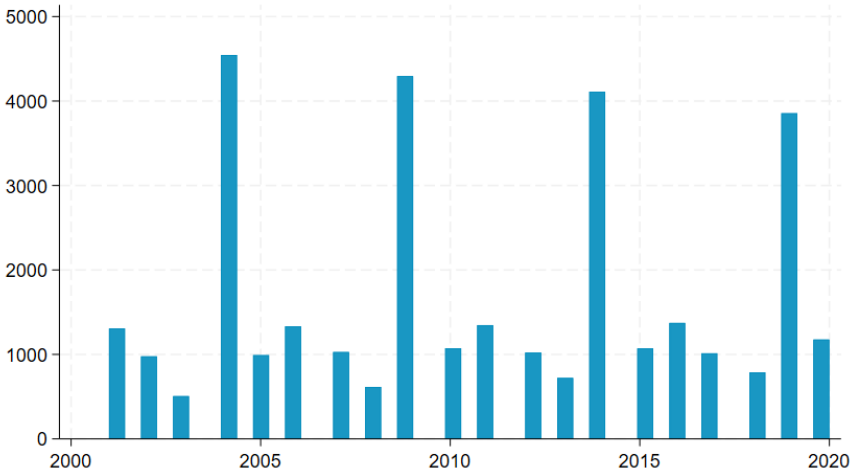
Variable	Observations	Mean	Std. Dev.	Minimum	Maximum
EU funds variables					
All EU funds	20631	3.499	2.114	0	9.833
Private beneficiaries	20631	1.323	1.794	0	9.500
Public beneficiaries	20631	2.279	1.923	0	9.497
Local governments as beneficiaries	20631	2.063	2.197	0	9.418
Social services	20631	0.858	1.601	0	8.572
Public services and transports	20631	0.599	1.447	0	8.614
Construction and waste management	20631	0.763	1.593	0	8.888
Innovation and R&D	20631	0.025	0.257	0	7.467
Institutional quality					
Collusion with organised crime	20610	0.006	0.079	0	1
Socio-economic and demographic controls					
Population density	20548	4.874	1.199	1.386	9.425
Municipal pre taxable income	19081	9.486	0.174	8.883	10.247
Growth	17605	0.016	0.024	-0.178	0.238
Other types of dismissals					
Financial distress	20931	0.007	0.083	0	1
Serious law violation	20643	0.003	0.054	0	1

Table B4: City council's dismissals across Italy for poor institutional quality

	Corruption (Law 164/1991)
Italian regions	
Abruzzo	0
Basilicata	1
Calabria	88
Campania	52
Emilia Romagna	0
Lazio	2
Liguria	1
Lombardy	1
Marche	0
Molise	0
Piedmont	1
Apulia	11
Sicily	53
Tuscany	0
Trentino Alto Adige	0
Umbria	0
Valle d'Aosta	1
Veneto	0
Italy	211
Southern Italy	205

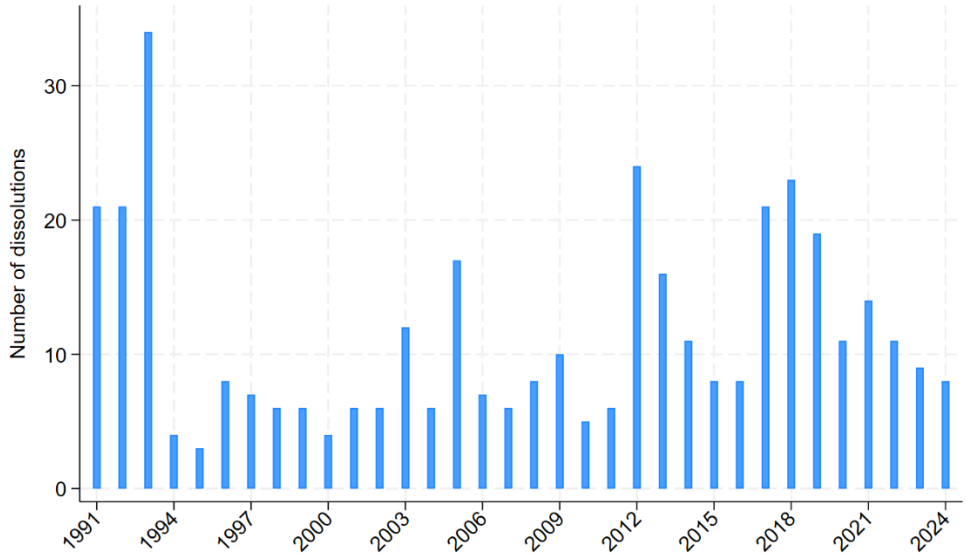
Note: The table reports the total number of city council dismissals across Italian regions during the period of our analysis. A clear geographical pattern emerges regarding dismissals due to organised crime collusion with local government members. Most of the city council dismissals enforced under Law 164/1991 are concentrated in the southern regions of Italy (sample regions), specifically Calabria, Campania, Puglia, Basilicata, and Sicily (in italics).

Figure B1: Local elections staggered adoption



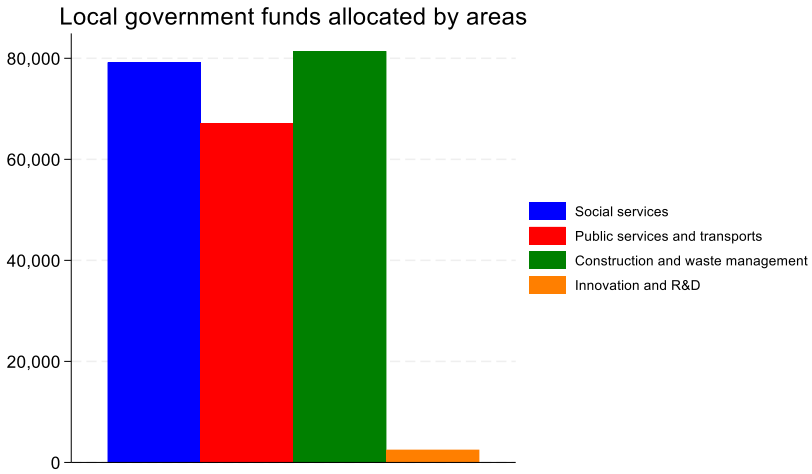
Note: The graph displays the frequency of Italian municipal elections over time. Local governments are called to the ballot box every five years, although these elections do not occur simultaneously in different municipalities.

Figure B2: City councils' dissolutions for mafia infiltration over time



Note: The figure displays the annual distribution of city council dismissals for mafia infiltration (application of Law 164/1991).

Figure B3: EU funds allocated to local governments across various investment categories



Note: The figure shows the logarithm of EU funds allocated to local governments across various investment categories.

Table B5: Definition of keywords for EU investments areas

Categories	Keywords
	Panel A: Original language of the keywords in Italian
Social Services	centro medico, ospedale, sanità, servizio di assistenza domiciliare, persone in condizione di, natura assistenziale, clinica, assistenza, sanitario, servizi sociali, strutture di accoglienza, sanitari, assistenziale, disabilità, erogazione, servizio civile, servizio per minori, sociale, disabili, vittime di violenza, senza fissa dimora, degrado socio-economico, sostegno al reddito, prima accoglienza, donne maltrattate, educativa, scolastici, educazione, casa di riposo, anziani, persone anziane, scuola, biblioteca, istruzione, infanzia, istituto comprensivo, scolastico, tirocinio, orientamento specialistico, asilo, asili, nidi, nido, patrimonio, restauro, cultura, museo, turismo, attrazione, località, storico, eventi culturali, festival, arte pubblica, spettacoli, teatro, itinerari, turismo culturale, ospitalità, manifestazioni, sport, archeologia, torre, castello, turistica, culture, arte, acque pluviali, acque meteoriche, acque piovane, isola ecologica, energia rinnovabile, sostenibile, parco, spazi pubblici, zone pedonali, percorso pedonale, ciclabile
Public services and transports	rete idrica, fogna bianca, fognari, ferrovie, porti, porto, ponti, ponte, reti di distribuzione, pubblica illuminazione, infrastruttura, infrastrutture, acquedotto, rete fog, mobilità, trasporto pubblico, autobus, bus, veicoli, mobilità sostenibile, sicurezza, messa in sicurezza, protezione, antincendio, elisuperficie, prevenzione, disastri, riqualificazione urbana, urbanizzazione, piani regolatori, centri urbani, sviluppo urbano, arredo urbano, infrastrutture urbane, politiche urbane, urbana, urbano, opere di urbanizzazione, aree urbane, marciapiedi, strada, pavimentazione
Construction and waste management	edilizia, edilizia residenziale, alloggi, riqualificazione abitativa, riqualificazione, abbattimento, manutenzione, lavori di adeguamento, realizzazione, completamento, sistemazione, rifacimento, rifiuti, raccolta differenziata, discarica, gestione rifiuti, isola ecologica, impianti di trattamento, smaltimento, compostaggio, riciclaggio, riduzione rifiuti, economia circolare, impianto di incenerimento
Innovation and R&D	ricerca, innovazione, digitale, piattaforma, tecnologia, servizi online, smart city, ICT, big data, cybersecurity, AI, machine learning, automazione, innovative, digitali
Panel B: Description of categories	
Social Services	All projects dedicated to social services such as support to disadvantaged citizens (unemployed and inactive, underage, migrants), elder care, education and health care, tourism and culture
Public services and transports	All projects dedicated to improvement of local transport infrastructure (e.g. public transportation), emergency prevention, public security, public lighting.
Construction and waste management	All projects dedicated to residential construction and housing redevelopment, management of public waste and recycling.
Innovation and R&D	All projects dedicated to research, innovation, digital economy.

Note: This table lists the keywords from the *Opencoesione* dataset used to classify EU funds across various categories based on project descriptions and titles. Panel A presents the keywords in the original language (Italian), while Panel B provides their English translations.

Appendix C: Robustness checks

Table C1: CSA estimates with never-treated as only control group

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Estimation method: CSA				
Corrupt	0.053	0.210	0.027	-0.745**
	(0.200)	(0.328)	(0.225)	(0.311)
Observations	18,901	18,901	18,901	18,901
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). The estimates rely on Callaway and Sant`Anna (2021) but in this case the control group is composed only by never-treated municipalities.

Table C2: Exclusion of city council dismissal due to financial distress and serious law violation

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	-0.118	0.370	-0.407	-0.902**
	(0.282)	(0.456)	(0.316)	(0.367)
Observations	15,534	15,534	15,534	15,539
Panel B: TWFE				
Corrupt	-0.263	0.388	-0.038	-0.684**
	(0.205)	(0.402)	(0.211)	(0.347)
Observations	15,613	15,613	15,613	15,613
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). The table presents the results obtained through the application of our two estimation methods, considering potential variations in treatment effects across different time periods and cohorts. In this sample, we exclude the city council dismissal due to financial distress and serious law violation from our control groups.

Table C3: Exclusion of all legislatures with city council dismissals

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	-0.128	0.385	-0.394	-0.929**
	(0.286)	(0.452)	(0.313)	(0.369)
Observations	14,998	14,998	14,998	14,998
Panel B: TWFE				
Corrupt	-0.257	0.392	-0.031	-0.677*
	(0.205)	(0.404)	(0.210)	(0.348)
Observations	15,085	15,085	15,085	15,085
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). The table presents the results obtained through the application of our two estimation methods, considering potential variations in treatment effects across different time periods and cohorts. In this sample, we exclude the legislatures affected by financial distress, serious law violation, and political dismissals from our control groups.

Table C4: Exclusion of re-elected mayors

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	-0.170	-0.017	-0.092	-0.829**
	(0.217)	(0.400)	(0.305)	(0.336)
Observations	16,353	16,353	16,353	16,353
Panel B: TWFE				
Corrupt	-0.110	0.174	0.110	-0.428
	(0.202)	(0.316)	(0.188)	(0.347)
Observations	16,426	16,426	16,426	16,426
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). The table presents the results obtained through the application of our two estimation methods, considering potential variations in treatment effects across different time periods and cohorts. In this sample, we excluded observations from our control group that pertained to municipalities with the same mayor in the previous legislature prior to the dissolved one.

Table C5: Exclusion of 2012 dissolutions

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	0.096	0.168	0.085	-0.798**
	(0.211)	(0.348)	(0.239)	(0.328)
Observations	18,710	18,710	18,710	18,710
Panel B: TWFE				
Corrupt	-0.209	0.185	0.054	-0.602**
	(0.171)	(0.287)	(0.154)	(0.297)
Observations	18,783	18,783	18,783	18,783
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). The table presents the results obtained through the application of our two estimation methods, considering potential variations in treatment effects across different time periods and cohorts. In this sample, we excluded observations from our control group that pertained to municipalities with the same mayor in the previous legislature prior to the dissolved one.

Table C6: Political alignment with the national government

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	-0.126	1.454	1.323	-3.473*
	(0.444)	(1.703)	(1.600)	(2.277)
Observations	14,856	14,856	14,856	14,856
Panel B: TWFE				
Corrupt	-0.286	0.107	0.095	-0.862**
	(0.208)	(0.303)	(0.194)	(0.360)
Observations	15,419	15,419	15,419	15,419
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). In all specifications (columns 1-4), EU funds are measured in the logarithm of per capita. The table reports all the results obtained through the application of our two estimation methods to account for potential variations in treatment effects across different time periods and cohorts.

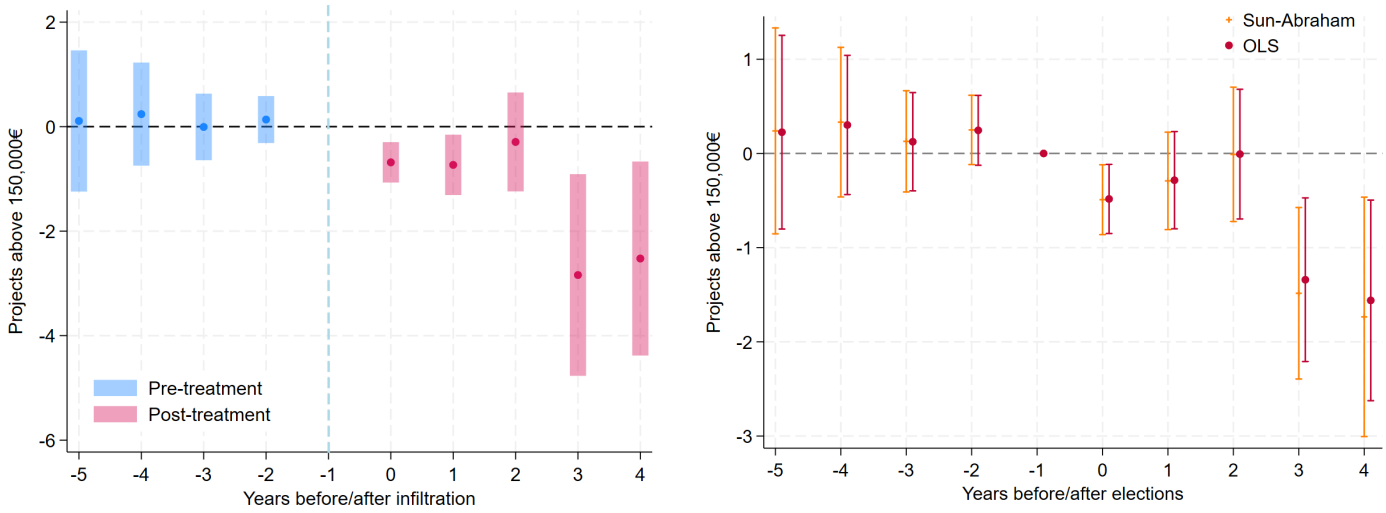
Table C7: Political alignment with the regional government

	All funds	Private Beneficiaries	Public Beneficiaries	Local governments
	(1)	(2)	(3)	(4)
Panel A: CSA				
Corrupt	0.031	0.338	-0.038	-1.343***
	(0.268)	(0.434)	(0.289)	(0.365)
Observations	15,168	15,168	15,168	15,168
Panel B: TWFE				
Corrupt	-0.262	0.175	0.098	-0.822**
	(0.199)	(0.309)	(0.187)	(0.341)
Observations	15,738	15,738	15,738	15,738
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

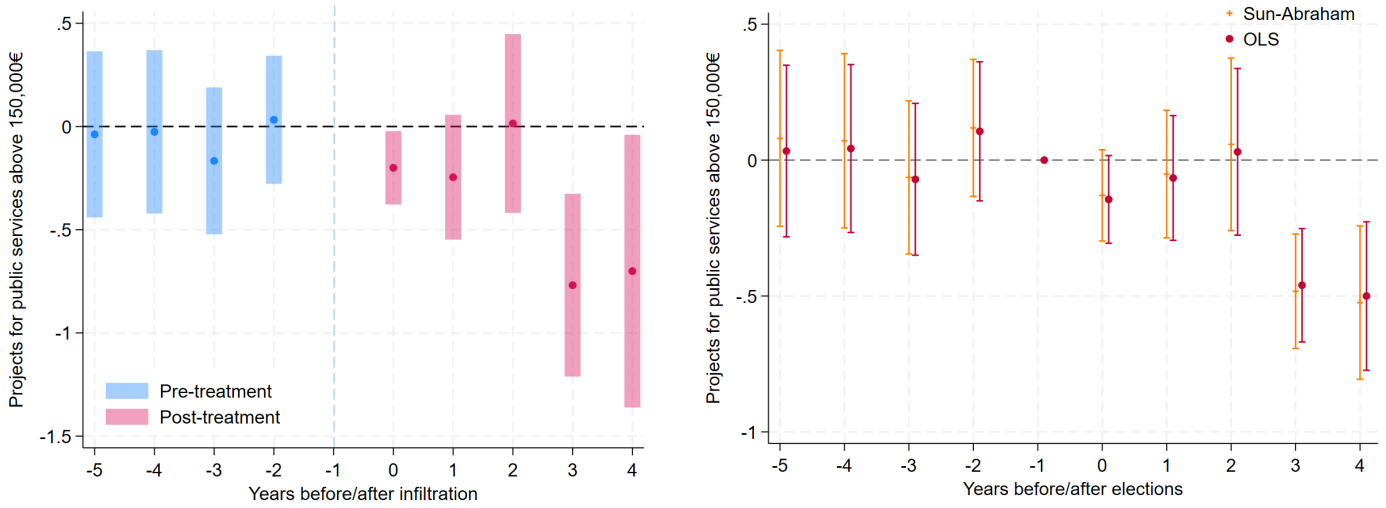
Note: the table reports the impact of poor local institutional quality on the total amount of EU funds (column 1), EU funds allocated to private beneficiaries (column 2), those allocated to public beneficiaries (column 3), and the funds allocated to local governments themselves (column 4). In all specifications (columns 1-4), EU funds are measured in the logarithm of per capita. The table reports all the results obtained through the application of our two estimation methods to account for potential variations in treatment effects across different time periods and cohorts.

Figure C1 Event study estimates of project engagement above the anti-mafia threshold

Panel A: Projects managed by the local government



Panel B: Projects managed by the local government for public services and transports



Note: The figure presents the outcomes of event studies (dynamic panel estimations) with 95% confidence intervals. t-1: Pre-election year (reference category); 0: Year of election of municipal governments dissolved for mafia infiltration. Panel A presents the event study estimates for numbers of EU projects allocated to local governments subject to the anti-mafia regulation. Estimates based on Callaway and Sant'Anna (2021) are shown on the left, while those from alternative estimators are shown on the right. Panel B shows the same estimates focusing on the numbers of EU projects allocated to local governments for infrastructure investments.

Table C8: Placebo test on alternative threshold

	Log projects per capita below €150,000	Log projects per capita between €50,001 - €100,000	Log projects per capita between €100,001 - €150,000
	(1)	(2)	(3)
Panel A: CSA			
Corrupt	-0.039	0.017	-0.011
	(0.028)	(0.022)	(0.023)
Observations	18,725	18,725	18,725
Panel B: TWFE			
Corrupt	0.0003	0.017	0.015
	(0.025)	(0.019)	(0.013)
Observations	18,819	18,819	18,819
Controls	✓	✓	✓
Year fixed effects	✓	✓	✓
Municipal fixed effects	✓	✓	✓

Note: This table examines whether governments colluding with the mafia are also less likely to select projects below €150,000, where anti-mafia regulations are not enforced. Column 1 considers the logarithmic transformation of the total number of projects per capita below €150,000. Column 2 focuses on the logarithmic transformation of projects valued between €50,001 and €100,000, while Column 3 examines projects valued between €100,001 and €150,000.. CSA: Callaway & Sant-Anna (2021) estimator; TWFE: Two-Way-Fixed-Effects model. Corrupt: dummy variable taking value 1 during years of cases involving local governments colluding with organised crime, from the election year until the dissolution year. Controls: population density, municipal income

Table C9: Other types of dismissals and EU funds to local governments

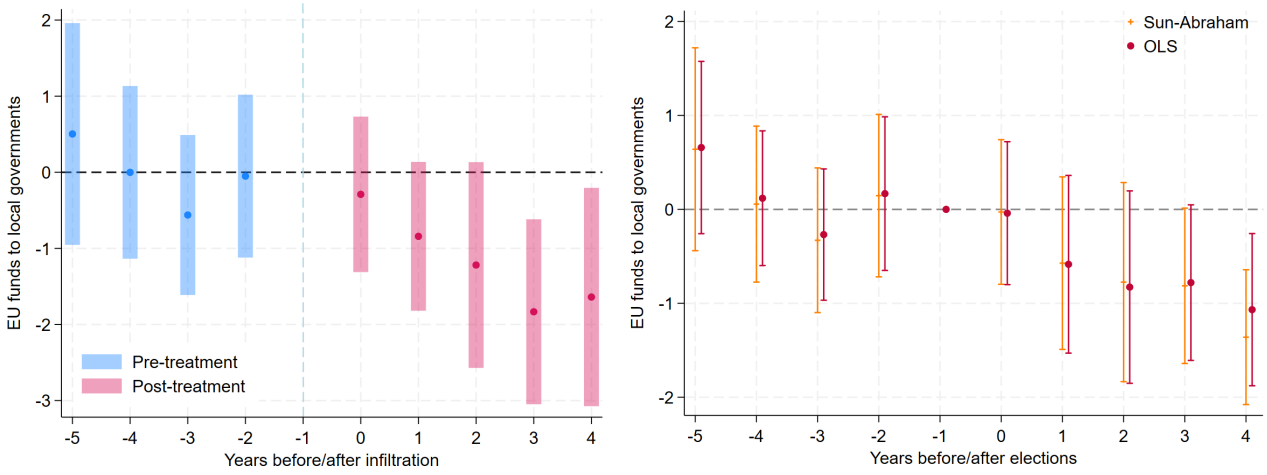
	EU funds to Local governments			
	Financial mismanagement		Violations of law	
	(1)	(2)	(3)	(4)
	CSA	TWFE	CSA	TWFE
Panel A: Bureaucracy				
Dismissed governments	-0.321	-0.306	-0.182	-0.436
	(0.296)	(0.210)	(0.281)	(0.276)
Controls	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓
Municipal fixed effects	✓	✓	✓	✓

Note: The table analyses the impact of city council dismissals on the allocation of EU funds to local governments. Columns 1 and 2 present results for dismissals due to financial mismanagement, while Columns 3 and 4 report dismissals resulting from serious legal violations. CSA: Callaway & Sant-Anna (2021) estimator; TWFE: Two-Way-Fixed-Effects model. Controls: population density, municipal income. Controls: Population density and municipal income.

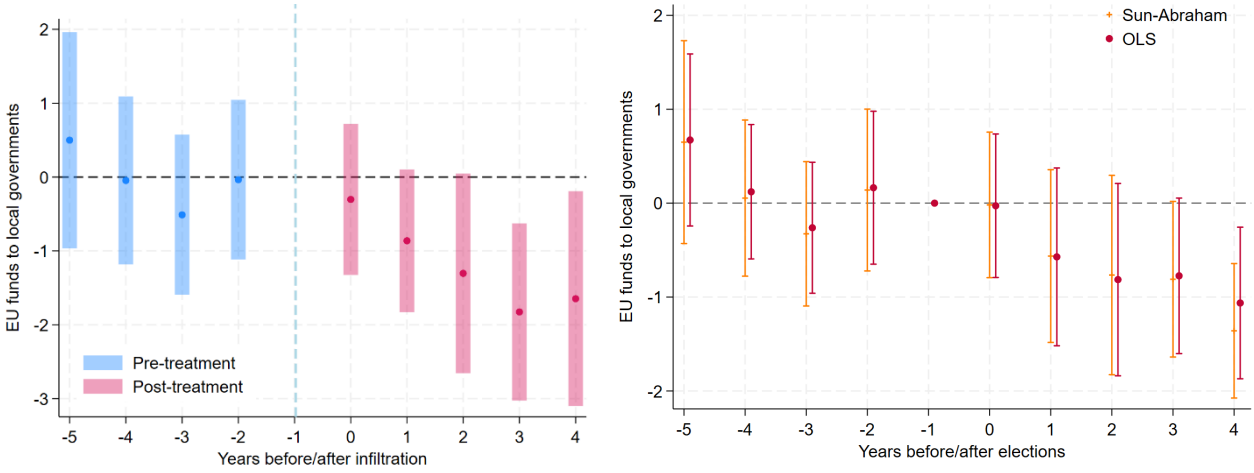
Appendix D: Alternative estimates

Figure D1: CSA event studies, exclusion of other types of dissolutions

Panel A: Exclusion of financial distress and serious law violation

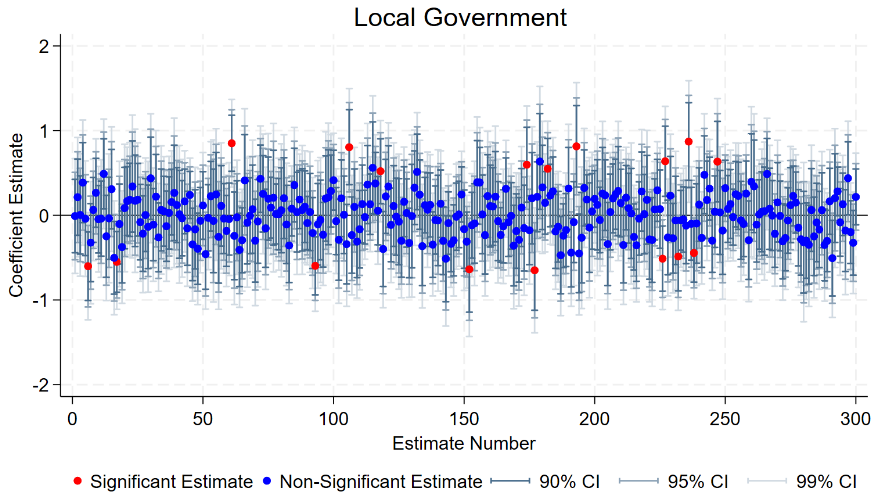


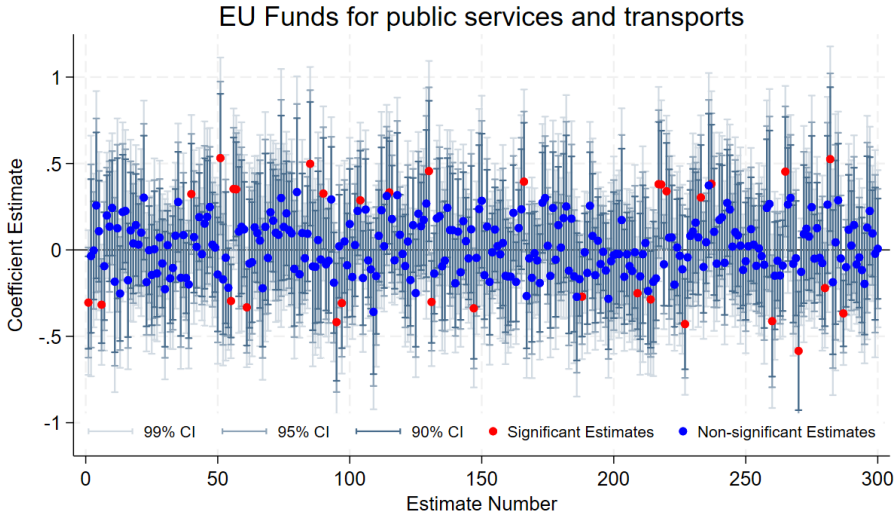
Panel B: Exclusion of political distress



Note: The figure presents the outcomes of event studies (dynamic panel estimations) with 95% confidence intervals**.** t-1: Pre-election year (reference category); 0: Year of election of municipal governments dissolved for mafia infiltration. Panel A shows event study results for the total amount of EU funds allocated to local governments, excluding dismissals due to financial mismanagement and serious legal violations from the control group, with estimates from Callaway and Sant'Anna (2021) on the left and those from other estimators on the right. Similarly, Panel B also excludes dismissals due to political reasons.

Figure D2: CSA event studies, exclusion of other types of dissolutions





Note: The figure displays 300 treatment effects, each corresponding to 300 treatment units randomly selected for analysis, along with their respective confidence intervals. Predominantly, the estimates reveal no statistical significance, as indicated by the coefficients which largely do not deviate significantly from zero.

	Mayors' education	Councillors' education	Executive committee` education
	(1)		
Panel A: CSA			
Corrupt	-0.072	0.070	0.171
	(0.082)	(0.064)	(0.110)
Observations	17,859	18,657	17,892
Panel B: TWFE			
Corrupt	-0.029	-0.069	-0.027
	(0.090)	(0.126)	(0.070)
Observations	17,987	18,102	18,760
Controls	✓	✓	✓
Year fixed effects	✓	✓	✓
Municipal fixed effects	✓	✓	✓

Table D1: Corruption and quality of local politicians

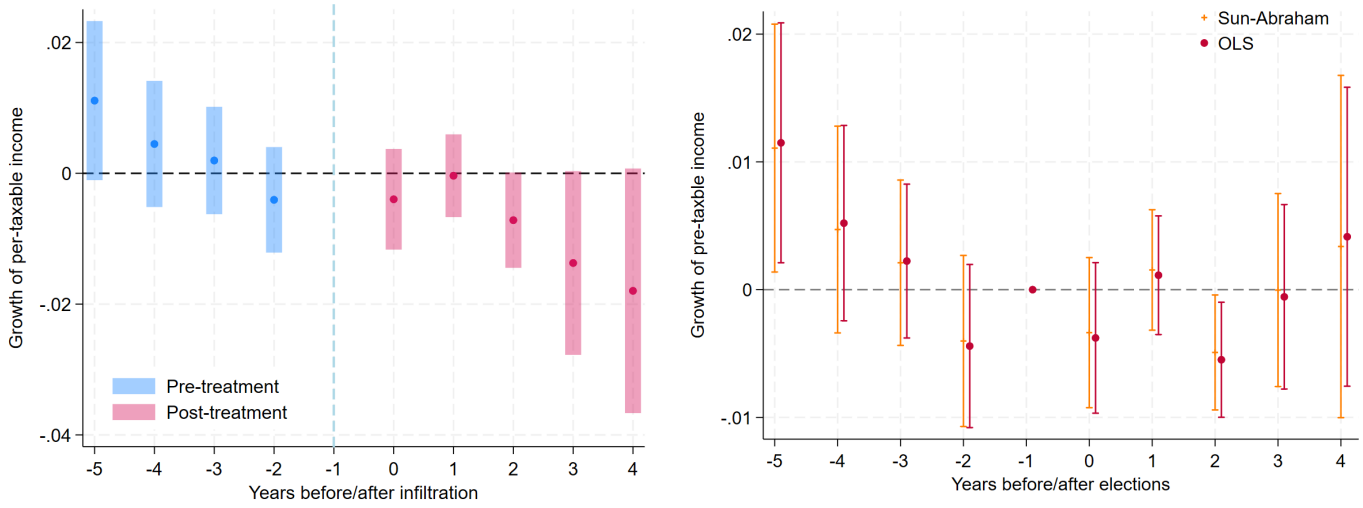
Note: The table assesses whether poor institutional quality resulting from collusion between local politicians and organised crime affects the educational attainment of local government members. All estimates indicate that such collusion does not lead to a decline in the educational qualifications of mayors, city councillors, or executive committee members. CSA: Callaway & Sant-Anna (2021) estimator; TWFE: Two-Way-Fixed-Effects model. Controls: population density, municipal income. Controls: Population density and municipal income.

Table D2: Corruption and economic growth

	Economic growth	
	(1)	(2)
	CSA	TWFE
Corrupt	-0.0052*	-0.0035***
	(0.003)	(0.001)
Observations	17,379	17,481
Year fixed effects	✓	✓
Municipal fixed effects	✓	✓

Note: his table shows the correlation between municipal pre-taxable income and local governments colluding with organised crime. The findings highlight a negative and statistically significant relationship across various estimation models. CSA: Callaway & Sant'Anna (2021) estimator; TWFE: Two-Way Fixed Effects model.

Figure D3: Event study on economic growth



Note: The figure presents event study outcomes (dynamic panel estimations) with 95% confidence intervals. t-1: Pre-election year (reference category); 0: Year of election of municipal governments dissolved for mafia infiltration. The left-hand graph displays event study results for the total amount of EU funds allocated to local governments, estimated using Callaway and Sant'Anna (2021), while the right-hand graph shows results from alternative estimators.