When Crime Tears Communities Apart: Social Capital and Organised Crime*

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Abstract

What is the long-term effect of organised crime presence on social capital accumulation? By leveraging novel social capital and organised crime data, this study investigates this question within the Italian landscape. In an instrumental variable (IV) setting, we exploit the forced resettlement law that compelled organised crime members living in the South of Italy to resettle in the Centre-North area. Using a granular measure of tax compliance as a proxy for civic awareness, we find evidence that sustained exposure to mafia presence depresses social capital accumulation. This finding applies to other dimensions of social capital, such as civic engagement and political participation. Results are robust to a series of robustness checks, such as the alternative strategy which combines the migratory movements from the South and the allocation of Marshall Plan funds. The findings appear to be influenced by a tolerance of dishonest conduct, a decrease in institutional trust, and a general disengagement from social activities.

Keywords: Organised Crime, Social Capital, Forced Resettlement, Expansion.
JEL: A13, K4, N34, O15.

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«The fight against the mafia, the first problem to be solved in our beautiful and unfortunate land, was not to be just a detached work of repression, but a cultural and moral movement that involved everyone and especially the younger generations, the most suitable to immediately feel the beauty of the fresh scent of freedom that makes people reject the stench of moral compromise, indifference, contiguity and therefore complicity.»
(Paolo Borsellino)

1 Introduction

Organised crime is a pervasive and relevant phenomenon affecting both developed and developing countries[4]. Over time, it has increasingly penetrated economic, political, societal, and legal spheres with harmful effects on local communities. The economic literature has delved extensively into the economic ramifications of criminal organizations (among others Pinotti, 2015; Barone and Narciso, 2015; Calamunci and Drago, 2020; Le Moglie and Sorrenti, 2022; Di Cataldo and Mastrorocco, 2021; Melnikov et al., 2020); however, other consequential facets, including but not limited to social capital, human capital, health, and welfare, have not been accorded the same degree of scrutiny.

The present study aims to bridge this gap in the literature and provide insights into the impact of the infiltration of criminal organizations into societal structures on the accumulation of social capital. Social capital plays a pivotal role in the functioning of institutions, facilitating civic engagement and promoting economic growth (Guiso et al., 2004; Sabatini, 2008). Extensive research has dug into the various factors that contribute to social capital's formation and its persistence over time, analysing the transmission of cultural and normative norms across generations (Putnam et al., 1992). However, social capital can also be influenced by external factors, including natural disasters (Buonanno, Plevani, et al., 2023) or corruption (Banerjee, 2016). Against this backdrop, the presence of organized crime, through its impact on society, may play a significant role in shaping the accumulation of social capital.

From an intuitive standpoint, we expect that the presence of organised crime reduces the accumulation of social capital. The presence of criminal organisations can contribute to creating a corrupt environment that would not be favourable to the development of social capital. When individuals perceive that their actions will not result in mutual benefits, due to the pervasive corruption and lack of trust, they may be less willing to engage in collective activities or invest in long-term relationships. Alternatively, it can also be that the presence of organised crime generates the opposite reaction in the local population, making it more aware and prone to social engagement. For example, civil society has reacted in some areas within Italy by creating anti-mafia movements, such as "*Addiopizzo*" and "*Libera*". These movements aim to counteract the influence of criminal organisations by promoting a culture of legality, social responsibility, and ethical behaviour. By doing so, they contribute to creating a social environment that fosters trust, cooperation, and civic engagement. Overall, from a theoretical perspective, this relationship is ambiguous and worth of empirical investigation[5]. Therefore, we specifically ask: *Does the presence of organised crime have a long-term effect on social capital?* If so, *does the long-term effect of*

[4] Organised crime and mafia are used interchangeably from now on.

[5] In this regard, the words of Sergio Mattarella, the President of Italy, on the XXII Day of Remembrance and Anti-Mafia Commitment celebrate in Locri in 2017 are meaningful: *"[The Mafia] is the denial of rights. It oppresses, spreads fear, undermines family and social ties, and exalts abuse and privilege [...]. Its criminal actions will have harmful effects for generations." [..] "Where before there was silence, now there are symbols and flags of associations committed against the Mafia. [...] Where there was indifference or resignation, now legality is taught."*

organised crime increase or decrease social capital?

To investigate this research question, we have chosen Italy as the ideal case study. Italy has a long-standing tradition of organised crime activities, which initially were mostly focused in the southern part but later expanded to the rest of the country. It is also relevant for the study of social capital, since the seminal work of Putnam et al. (1992) which popularised its notion. Nevertheless, studying and identifying the effect of organised crime on social outcomes is empirically challenging and poses fundamental challenges, summarised in the following three main points.

First, it is difficult to quantify organised crime and find measures able to capture it from a long-run perspective. Official indicators are available only starting from the 1980s and some of them offer only an aggregate view. To overcome this limit, following Dipoppa (2021), we create a time-varying measure of mafia presence by web-scraping organised crime-related news from the Italian newspaper "*La Stampa*" for the period 1950-2006. This provides us with a measure of organised crime from the 1950s at the municipality level.

Similarly, it is difficult to find measures that capture social capital with a long-run perspective. A further challenge is posed by social capital's multidimensional nature (Durante, Mastrorocco, et al., 2023). To overcome these challenges, we collect several social capital proxies that capture different dimensions of it. Our main proxy of interest is the TV tax compliance rate from 1955 to 2015, gathered with the collaboration of "*RAI*". TV tax compliance rate is an adequate proxy for the rule compliance dimension of social capital (Bracco, De Paola, et al., 2015) since it is relatively inexpensive, easy to evade, and can be classified as a public contribution. Additionally, the long time span and granularity make the TV tax compliance rate a novel and unique measure. Furthermore, in a cross-sectional form, we collect data on turnout to referendums and European elections and on the number of voluntary associations to proxy for the political participation and the civic engagement dimensions, respectively.

Lastly, it is difficult to have a reliable identification strategy able to assess the causal effect of interest. In fact, organised crime presence is not random, but rather it infiltrates where it deems to be best for its interests. For example, we can conjecture that it may be easier for it to infiltrate, and then control, areas with lower social capital values. In such a case, naively estimating an OLS specification relating organised crime presence to proxies for social capital is likely to produce biased estimates. To this end, the early expansion of organised crime from the South to the Centre-North of Italy from the 1960s allows us to pin down a clear period where criminal organisations arrived in the area, and to address both the endogeneity in its presence as well as the possible reverse causality with social capital. We specifically exploit the introduction of a forced resettlement law, as cause for the expansion of organised crime from the South to the Centre-North identified by Smuraglia (1994), employing an instrumental variable (IV) approach.

The forced resettlement law, "*soggiorno obbligato*", aimed at disrupting the local connections of the members of criminal groups, removing them from their locality of operation and displacing them elsewhere distant, mostly in the Centre-North regions. We gathered novel data at the municipality level on displaced criminals from the Italian Parliamentary Antimafia Commission (IPAC), which we use to instrument our measure of organised crime presence. 2SLS estimates reveal that long-term exposure to organised crime reduces the compliance rate of the TV tax by 6.28%, given a 10% increase in our main explanatory variable. Importantly, the instrument shows both relevance and strong predictive power. Specifically, the first stage exhibits high F-

statistics and positively predicts the endogenous variable, supporting the idea that the forced resettlement law facilitated the importation of organised crime in the Centre-North.

We then extend the analysis to the other three social capital dimensions, namely the number of civic associations and the turnout to European elections and referendums, in a cross-section set-up. We still find negative and statistically significant results across the three measures.

Our results survive an extensive range of rigorous robustness checks. These include the use of the inverse hyperbolic sine transformation for the main organised crime measure, and the combination of TV and radio taxes for the earliest period of our sample. Further, we face possible distortions in the application of the forced resettlement law, and perform the following robustness tests. First, we conduct a balancing test on a set of covariates at baseline to investigate possible differences in treated (mafia receiving) and control (not receiving) municipalities. We find statistically significant differences in a subset of these covariates, which we include in the estimations interacted with year dummies. Second, we re-estimate the analysis restricting the sample to one generated from a Propensity Score Matching (PSM) strategy proposed by Rosenbaum and Rubin (1985). Third, we exclude a number of municipalities, which were selected as destinations for forced resettlers, but which had some organised crime related news in the pre-law decades. Then, exploiting the fact that the first stage of the instrumental variable strategy is a 2x2 difference-in-differences, we estimate the reduced form in a full dynamic specification, formally testing for the validity of the parallel trends assumption. Lastly, we exploit an alternative instrument by combining the migratory movements from the South to the Centre-North with a positive shock to the allocation of public funds, which is represented by the distribution of Marshall Plan funds. Overall, these empirical exercises and the employment of this alternative instrumental variable strategy do not affect the economic and statistical significance of our estimates.

Finally, we investigate the mechanisms through which organised crime could affect social capital accumulation by exploiting a few relevant questions from the 2001 *ITANES* survey. First, we show that the estimated effect on the TV tax compliance rate could be explained by a contagion effect generated by the emulation of dishonest behavior. Second, the presence of organized crime in a community instills a sense of selfishness, making people less likely to invest in social capital and leading to a reduction in collective activities for the common good. Third, estimates reveal how organised crime erodes local communities, leading to a lower level of institutional trust, resulting in a lower political participation.

This paper contributes to several strands of literature. First, we contribute to the limited strand of economics literature studying the impact of organised crime on social aspects. A few notable mentions are Coniglio et al. (2010), Acemoglu et al. (2020), and Caglayan et al. (2021) and Rolla and Justino (2022). The paper closest related to our work is Rolla and Justino (2022). The authors extensively analyse the relationship between organised crime and social capital, both in contemporaneous terms and from a long-term perspective, on the latter exploiting a synthetic control approach in the Italian region of Apulia. Our paper differs from theirs mainly in the geographical area we focus on, the level of the analysis, the measure of organised crime and social capital that we adopt, and the identification strategies we employ. Their overall results are in line with the ones of this paper.

Second, our research aligns with the existing body of work on social capital (Putnam et al., 1992; Putnam, 2000; Guiso et al., 2008; Guiso et al., 2011; Nannicini et al., 2013; Bracco, De Paola,

et al., 2015; Buonanno, Plevani, et al., 2023). We contribute to it by examining the impact of external factors, organized crime in our case, on social capital formation. Moreover, we compile a new and unique dataset on the TV tax compliance rate, that proxies for civic awareness.

Lastly, this paper is in line with the emerging literature exploring the causes behind the organised crime expansion (Varese, 2011; Piemontese, 2020; Dipoppa, 2021) and studying organised crime from a historical perspective (Bandiera, 2003; Buonanno, Durante, et al., 2015; Dimico et al., 2017; Acemoglu et al., 2020). Our findings suggest that transplanted criminal organisations can be just as effective as their native counterparts in inhibiting the accumulation of social capital. Moreover, this paper examines the potential exogenous shocks of mafia geographical expansion. To this end, we compile and utilize unique data to investigate the effects of forced resettlement laws, migratory movements from Southern Italy, and the allocation of Marshall Plan funds.

The rest of the paper is organised as follows. Section 2 describes the historical background of organised crime and explains in detail the rationale behind both the expansion channels being exploited. Section 3 gives a brief overview of the concept of social capital. Section 4 describes the multiple data sources that we have gathered for the development of this paper. Sections 5 and 6 respectively present the empirical strategy and the associated results. Section 7 describes the series of robustness checks that we performed. Section 9 provides a discussion of the potential mechanisms, and Section 8 concludes.

2 Historical background: organised crime expansion in the Centre-North of Italy

The presence of criminal organisations in Italy stands out for its historical longevity and territorial roots, especially in the Southern region of the country. More recent evidence shows that the economic and territorial relevance of criminal organisation is significant and growing also in the Centre-North area (Transcrime, 2013; Mirenda et al., 2022).

The existence of mafias in the Centre-North of Italy has long been denied or ignored by public authorities. While numerous parliamentary committees have investigated the phenomenon (Camera and Senato, 1972; Camera and Senato, 1976) in the four historic settlement regions (Sicily, Calabria, Campania and Apulia)[6], none focused on the non-traditional ones. However the press periodically highlighted major incidents of intimidation in some cities in the Centre-North since the early 1970s[7].

Concerns about the mafia spreading outside of its usual territory began to rise only during the 1990s (Smuraglia, 1994; Sciarrone, 1998; Ciconte, 2010). This matter eventually became the focus of parliamentary discourse with the deliberations centered on the so-called "territorial ramifications of the mafia." From 1992 to 1994, a special parliamentary committee started to

[6] The origins of Italian criminal organisations have been extensively researched qualitatively. Especially for the Sicilian mafia, many pieces of evidence have been proposed in the broad array of different explanations of how, when, and where mafia originated, beginning with key reports by Franchetti and Sonnino (1877), Alongi (1887) and Villari (1978) and Cutrera (1900).

[7] For example, the press reported many cases of intimidation against southern immigrant workers in Piedmont, particularly in the Turin and Bardonecchia area. These cases were characterized by the phenomenon of violent demands of exploitative labor brokers who controlled the market in many fields of expertise to work in the industrial and construction sectors.

explore the causes behind this spread outside the original stronghold territory[8] subsequently argued in the work by Varese (2011), identifying two types of causes: internal and external ones to criminal dynamics.

Within the first category, the special committee identified three primary potential causes. First, the need for individuals associated with local "families" to flee their regions of origin due to feuds or vendettas. Second, the possibility of a greater ease of concealment and a lack of established social defense mechanisms, as highlighted by Camera and Senato (1976), resulting in the avoidance of the stringent regulations prevalent in the original territory. Third, the increasing involvement in the drug market, which led to a simultaneous growth in illegal trafficking and criminal enterprise.

The second category arises from exogenous shocks outside the criminal network, and the special committee identified two prominent explanations to this: the use of *"soggiorno obbligato"* and the change in the demographic fabric of some areas of the Centre-North, induced by the combination of a migratory increase since the 1960s and an increase in labour demand resulting from the economic upturn of the Centre-North area[9].

The above mentioned explanation are, with various degrees, the foundation of our identification strategy and we devote the following subsections to the explanations of the details of these two.

2.1 Institutional details of the forced resettlement law

Following the legacy of a Fascist regulation aimed at isolating political opponents of the state, in 1956 the Italian legislation introduced Law 1423/1956 regulating the *"soggiorno obbligato"*, i.e. forced resettlement, later perfected with Law 575/1965, which specifies the application to the mafia category[10].

The measure fell among the precautionary measures, and was applied when: *"In case of serious danger, the person can be forced to relocate to a specified town"*. This measure was to be implemented only in instances of severe jeopardy. By mandating an individual in question to relocate to a predetermined municipality, the aim was to limit the danger of subjects deemed predisposed to commit crimes, but against whom there was no evidence for an indictment. The underlying aim of this statutory provision was to effectuate a severance between the offender and his bonded criminals, thereby disrupting the status quo of the mafia as a whole (Ciconte, 2010).

The law stated that, in presence of public threat or risk correlated to an individual, *"the Questore (Police Commissioner, i.e. the head of police in a certain city), or the National Antimafia Prosecutor, or the State Prosecutor, can ask the court to order forced relocation to a town, then decided by the President of the Court, that has appropriate territorial and safety characteristics [...]"*. In other words, the Court issued the relocation order on the proposal of the Commissioner, and appeals were heard by the Prefect. The mandate to live in the destination municipality lasted between

[8] Smuraglia (1994), pages 19-22 of the report.

[9] The committee points out that: *"This type of immigration is not in itself a criminal phenomenon nor a phenomenon to be regarded with suspicion. Otherwise, a real injustice would be committed to the many workers who moved to the Centre-North with their families and lived honestly"*. However, since the migratory movement was consistent, together with honest immigrant workers, individuals more inclined to engage in criminal activities arrived in the area, supporting criminal groups in need of safe bases or references.

[10] It contained the term "mafia" for the first time, introducing the category of mafia suspect.

one to five years. Additionally, it was prescribed to the displaced 1) not to go far from the chosen home without notice to the judicial authority, and 2) to report to the public security authority responsible for surveillance.

Its application generated a flow of mafia members from the South to cities of Central and Northern Italy, which were often the preferred destinations for resettlement. The forced resettlement law did not indicate that at the end of the procedure, the confined person must return to his municipality, they could decide to stay.

Similarly, it did not provide any specific parameters for the choice of location. Only in 1982, the forced resettlement law was revised to include some characteristics of the destination town. Specifically, *"the compulsory stay must be arranged in a municipality with a population of no less than 5 thousand inhabitants and far from large metropolitan areas, such as to ensure effective control of people subjected to the preventive measure and which is the seat of a police office."*. Further modifications were provided in 1988 and 1993, and in 1995 the forced resettlement law was abrogated.

2.2 Economic boom, labour demand and migratory movement

In this subsection, we provide a concise explanation of the historical context that enables the identification of the second cause of mafia expansion in the Centre-North of Italy. This cause is linked to the combination of a migratory increase that started in the 1960s and the positive shock to the allocation of public funds influencing the economic upturn and the increase in labor demand.

After World War II, the region of Central and Norther Italy underwent an economic boom that can be attributed in large measure to their industrial progress. The economic boom particularly interested the areas where the *European Recovery Program (ERP)*, more commonly referred to as the Marshall Plan, was granted (Giorcelli and Bianchi, 2021).

The Marshall Plan, a significant postwar economic recovery undertaking spearheaded by the United States from 1948 to 1952, channeled a combination of financial grants, in-kind subsidies, and loans to Italy. Of these, financial grants constituted the bulk of the assistance, amounting to 74% of the total aid extended and underwriting almost 15,000 projects[11]. These ERP investments were directed towards a diverse range of areas, including but not limited to agriculture, industrial equipment, public works, transportation infrastructure (notably railways), construction of buildings (especially social housing), and business loans to enterprises such as those comprising the "Industrial Triangle."

As reported by Giorcelli and Bianchi (2021), the ERP initiative engendered divergent economic impacts across various Italian regions in the postwar period. Those provinces boasting improved infrastructure witnessed more marked growth in agricultural output, investment in labor-saving equipment, industrial expansion, and augmentation in industrial and service personnel. From a geographic standpoint, the Centre-North exhibited the swiftest economic expansion, whereas the South lagged behind in terms of industrial progress. This gave rise to internal migration from the South to the Centre-North, with more than 1.3 million individuals relocating

[11] The US government rigorously oversaw the entire fundraising process. They used the "Italy Country Study" to gather extensive data on the Italian economy and identify areas needing financial aid. The US Economic Cooperation Administration and the Italian government jointly created annual plans divided into four quarters for the duration of the Marshall Plan's disbursement period (Fauri, 2006). Local lobbying and corruption were unlikely to impact fund allocation due to the US authorities' commitment to evaluating projects individually and monitoring disbursement. More information on funded projects is in Giorcelli and Bianchi (2021).

between the years 1958-1963, primarily from Apulia and Sicily, although other Southern regions also participated (Calabria, Sardinia and Campania) (Fofi, 1964). The demand for labor in the Centre-North provided opportunities for many southern laborers, who were mainly employed in the factories or construction sector[12].

3 Social capital framing

Framing the concept of social capital and discussing its measurement requires particular effort, mainly due to two types of problems (Durlauf, 2002). First, its multifaceted nature makes its definition challenging. Indeed, although the idea of social capital has a long conceptual history in the social sciences, there is no universally unambiguously accepted definition. In the early 1990s, the concept of social capital became a prominent theme in the social sciences discussions and has been defined in different ways. One important example comes from Putnam et al. (1992), which refers to social capital as *"features of social life-networks, norms, and trust, that enable participants to act together more effectively to pursue shared objectives"*.

The challenge of not having a unique definition derives primarily from the fact that social capital has various dimensions (e.g. trust, rules and norms governing social action, types of social interaction, network resources, other network characteristics), different levels[13] and types[14] of identification and belonging (Claridge, 2004).

Second, there is no measurement method commonly accepted and there are difficulties in finding adequate data. So far, three major methods have predominated the literature. The first involves using survey data with questions aiming to capture its various dimensions (Durante, Mastrorocco, et al., 2023). The second involves conducting a census of groups and group memberships in a given culture. The third exploits measures based on observable behaviours that are expressions of these networks and norms, for example, rates of organs donation, turnout in referendums, membership of voluntary organizations, newspaper readership (Nannicini et al., 2013; Cartocci, 2007; Guiso et al., 2008). In this paper, we employ this latter category, measuring three social capital dimensions: civic awareness, civic engagement and political participation. Given the panel data available, we will focus primarily on civic awareness as we will discuss in the next section.

4 Data

In the following section, we carefully describe the data employed in this paper. To unravel the relationship between organised crime and social capital we combine data from multiple sources.

[12] Southern migrants had a significant presence in Italy's construction industry in the 1960s. In Genoa, 70% of the construction workforce were from the South in 1962. In Turin, around 80% of construction workers were registered with the "*Cassa Edile*" during 1960-61. In Milan, non-resident workers made up almost 85% of the total workforce by 1962, with Calabrians, Apulians, and Sicilians outnumbering even the Venetians and Lombards (Paci, 1973). Additionally, Rome's administrative and tertiary nature caused a unique migration phenomenon in Lazio.

[13] The general classification is micro (individual), meso (group) and macro (societal) levels.

[14] Social capital studies typically distinguish between two main components: structural and cognitive. The structural component includes observable aspects of social structure, such as network linkages and civic involvement, while the cognitive component reflects subjective views, such as trust and reciprocity standards. Another important distinction is between bonding and bridging social capital. Bonding social capital refers to strong connections between individuals who share similar characteristics while bridging social capital describes connections between individuals from different social backgrounds.

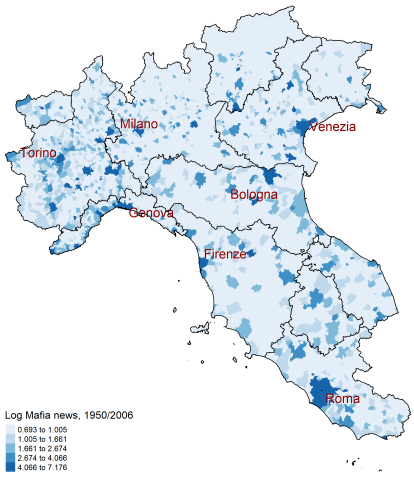
4.1 Organised crime presence

Measuring the presence of organised crime from a historical perspective is not an easy task. In fact, most of the indicators that are commonly used in the literature start at the earliest in the 1980s and some of them are at the provincial levels (Calderoni, 2011; Dugato et al., 2020) rather than municipal, which is the unit our analysis focuses on.

To solve this problem, following Dipoppa (2021), we web-scraped news containing the words "*mafia*", *"camorra"* and *"'ndrangheta"* from the *La Stampa* newspaper online archive[15]. We performed this task for the period that goes from 1950 to 2006[16] and then validated this measure with recent official municipality indicators. In each article, we are able to collect the date, the page number within the newspaper, location tags and the body. Then, exploiting both the location tags and the body, we are able to classify whether a municipality is related to a mafia news article on a given date. Specifically, if an article that we have extracted contains the name of one or more municipalities, we classify that mafia-related news to be related to that set of municipalities. Lastly, for each municipality and decade, we count the number of news concerning organised crime, which is formally our indicator.

To describe its content in a more detailed way, we show what follows. Firstly, figure 4.1 shows the $log + 1$ of the number of news over the Centre-North part of the Italian territory, averaged over the 1950-2006 period. It is possible to note that the largest cities in the Centre-North have the highest values, with particular concentration taking place in the North-West.

Figure 4.1: Log. of news related to mafia, avg. over 1950 to 2006.



Secondly, we run a Latent Dirichlet Allocation (LDA) model, to analyze the content of the news article that we have extracted. Before that, we perform routine data cleaning exercises, such as removing stop-words, punctuation, symbols etc. This results in the creation of tokens that we employ to populate a Document-Feature Matrix (DFM). From it, we further sub-select tokens that have a minimum frequency of 100 and that appear at least in 10 documents (Gentzkow et al., 2019). We formally estimate the LDA model with 20 topics, the results of which can be seen in Figure 4.2. Mostly all of them are related to organised crime direct or indirect activities,

[15] *La Stampa* is a nationally available newspaper outlet founded in 1867 in Turin. Its online public archive covers the period that goes from 1867 to 2006. To our knowledge, it is the only online public archive that allows covering such a long period. Appendix B reports examples of the extracted news.

[16] The upper limit of the archive.

like drug trafficking, arrests, money laundering, homicides, and police forces.

Figure 4.2: Topics of organised crime related news extracted via a LDA model.

Lastly, to assess the validity of our indicator, in Table 4.1 we regress its average $log + 1$ value from 1950 to 1990, namely before official indicators were produced, on various dummies referring to the confiscations of goods and firms associated with organised crime, i.e. official indicators of organised crime presence for the period 1980-2020[17]. Our mafia-news-based indicator is consistently positively correlated with the various dummies, with consistent levels of statistical significance, representing a strong validation of our index.

Table 4.1: Correlation between mafia news indicator and confiscations dummies.

	Confisc. $Overall_{i,1980\text{-}2020}$		*Confisc.* $Firms_{i,1980\text{-}2020}$		*Confisc.* $Real\ Estate_{i,1980\text{-}2020}$	
	(1)	(2)	(3)	(4)	(5)	(6)
$Mafia_{i,1950\text{-}1990}$	0.115***	0.098***	0.076***	0.056***	0.110***	0.093***
	(0.010)	(0.011)	(0.009)	(0.009)	(0.010)	(0.011)
N	5483	5483	5483	5483	5483	5483
Mean outcome	0.171	0.171	0.050	0.050	0.158	0.158
SLL FE	✓	✓	✓	✓	✓	✓
Controls		✓		✓		✓

Notes: Dependent variables: a dummy equal to one if a municipality ever experienced a confiscation; a dummy equal to one if a firm registered in a municipality has ever been confiscated; a dummy equal to one if a real estate in a municipality has ever been confiscated. The endogenous variable, $Mafia_{i,1950\text{-}1990}$, refers to the log of the number of news related to the mafia in city i, averaged from the 1950s to the 1990s.Controls include city population in 1950, longitude, latitude and area. All columns include local labor markets areas fixed effects. Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

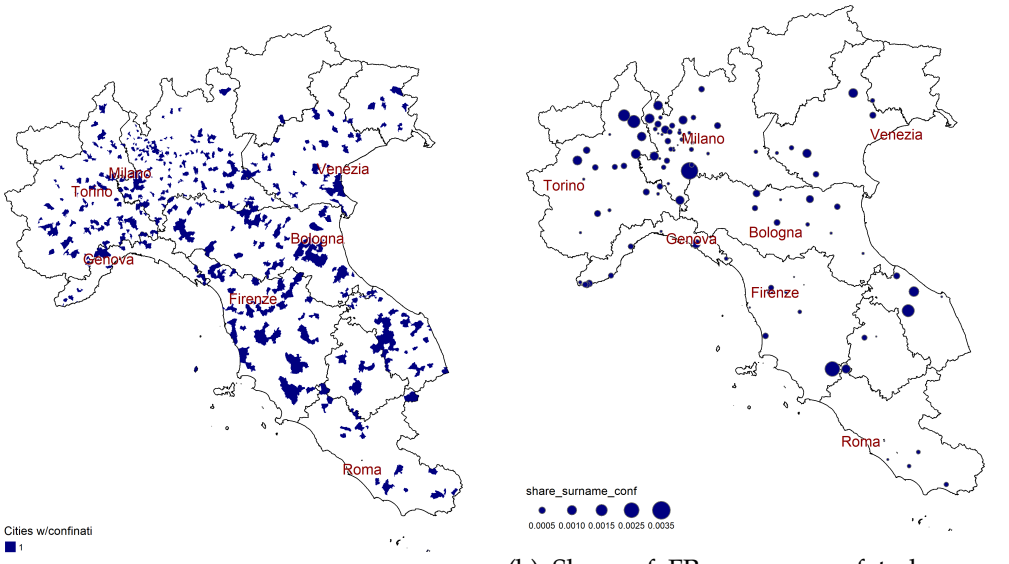
[17] The data on confiscations comes from *ANBSC*, the National Agency for the Management of Goods Confiscated to organised crime.

4.2 Forced resettlement

We gather municipal-level data on members of organised crime forcibly resettled from a couple of sources. First, from the documents composing the Italian Parliamentary Antimafia Commission, *IPAC*[18]. Specifically, we gather the name of the criminals, their origin, and their destination for the period that goes up to 1974. Second, we extend the data on forcibly resettled organised crime members that belong specifically to the *'Ndrangheta*, with the data coming from various sources and relating to the period that goes from 1974 to 1995[19].

To our knowledge, this is the most comprehensive data on forcibly resettled members of organised crime at the municipal level. Figure 4.3 shows in *panel (a)* the distribution of municipalities receiving forcibly resettled members of organised crime, while in *panel (b)* it shows the share of forcibly resettled members of organised crime's surnames on nowadays population[20]. It is noteworthy to note that in *panel (a)* the distribution of receiving resettlers is quite homogeneous across the Centre-North of Italy and that in *panel (b)* a notable cluster in the area surrounding Milan, where multiple units of organised crime are present nowadays is evident.

Figure 4.3: Maps relative to forced resettlers distribution and persistence.



(a) Forced resettlement distribution

(b) Share of FR surnames of today surnames

4.3 Social Capital

As we highlighted in Section 3, studying social capital, given its multidimensionality, is not an easy task. This is further complicated when one aims at unravelling a long-term relationship in a small-scale context such as that of municipalities. In this paper, we gather various data that proxy for social capital, with different time lengths, conditional on their availability at the

[18] *"Documentazione Allegata alla Relazione Conclusiva della Commissione Parlamentare d'Inchiesta sul fenomeno della Mafia in Sicilia, Doc. XXIII, n.1, Volume primo"* and *"Volume quarto, tomo ventiduesimo"*.

[19] We are thankful to Lucia Rizzica and Sauro Mocetti for sharing essential data that complements ours.

[20] To compute this share, we exploit the data on Italian taxpayers of 2008. The dataset was published online in 2008 by the Italian Ministry of Finance in the form of a full set of individual tax declarations. It was subsequently removed following the intervention of the Italian Privacy Authority, which deemed that the online publication of individual earnings did not conform to the law. We employ this data source merely in aggregates in this paper.

municipality level. This data allows us to measure social capital based on observable behaviours such as civic awareness, civic engagement and political participation. However, we are able to exploit the time time dimension of the data only for civic awareness.

4.3.1 Time-varying measure

TV tax compliance. To capture the dimension of social capital that measures civic awareness, we collected data on the TV tax compliance rate from *RAI*, the national public broadcasting company of Italy[21]. The fee was established by the provisions of the Royal Decree-Law of 21 February 1938, n. 246 relating to the regulation of subscriptions to radio hearings and from 1950s also for reception of television broadcasts.

The economics literature agrees with using this measure to build a reliable proxy for individuals' propensity to free-ride (Bracco, De Paola, et al., 2015; Buonanno, Plevani, et al., 2023; Bracco, Liberini, et al., 2021). First, this tax is relatively inexpensive and easy to evade. In Italy, every TV owner is required to pay a fee, e.g. within the range of 104€ p/year in 2007 and 113.50€ p/year in 2014. An administrative sanction is very weakly enforced on those who do not pay, and typical fines for a household are low relative to cost (up to 516 Euros plus a mandatory 5-year license purchase). Secondly, like in many other European nations throughout the research period, public broadcasting programs were available regardless of whether TV owners paid the fee, thereby making its payment a public benefit contribution with little incentive to comply. The broadcasting of channels within *RAI* continued irrespective of payment. Due to this, the propensity to pay the TV tax depends on one's willingness to contribute to the greater public benefit or on a sense of civic responsibility[22].

We have gathered information on the compliance rate of households within a municipality in paying the TV tax. This measure is constructed by taking the ratio of the number of TV licenses for private issues in a municipality and the number of households in that municipality. After receiving yearly data in PDF format from *RAI*, we designed a script that was able to convert them at intervals of five years in structured data[23]. Then, we computed decade averages at the municipal level to construct a panel from the 1950s to the 2010s.

Figure 4.4 shows the geographical distribution of the average TV tax compliance rate from the 2000s to the 2010s. Moreover, Figure 4.5 shows the evolution over time of the rate, by region.

4.3.2 Cross-section measures

Voluntary associations. We gather data on the number of voluntary associations per 100 inhabitants in a municipality measured in 2001 from the National Institute of Statistics, *ISTAT*, censuses. This measure is a standard in the literature (Durante, Pinotti, et al., 2019) and captures the level of civic engagement within a municipality.

Referendums turnout. We gathered data on the turnout for all ever-held referendums, i.e. from 1946 to 2020, for which we have data at the municipality level, from the *Eligendo* portal in the Italian Ministry of the Interior website[24]. Among all elections, a referendum should capture

[21] We are thankful to Gabriella Menduini and Francesca Arduino for giving us access to this fundamental data.

[22] As a result of the relatively wide evasion, in 2016 the Italian government passed new legislation that requires home energy providers to include the TV tax in their bills.

[23] Using the Python package `layoutparser` (Shen et al., 2021) See Appendix B for an example.

[24] However, in the historical archive of elections, data are not available at the municipal level from 1985 to 2006 and this gap makes less reliable the use of referendums turnout as a time-varying measure. Hence, we use it in a

Figure 4.4: Avg. TV tax compliance rate 2000/10s

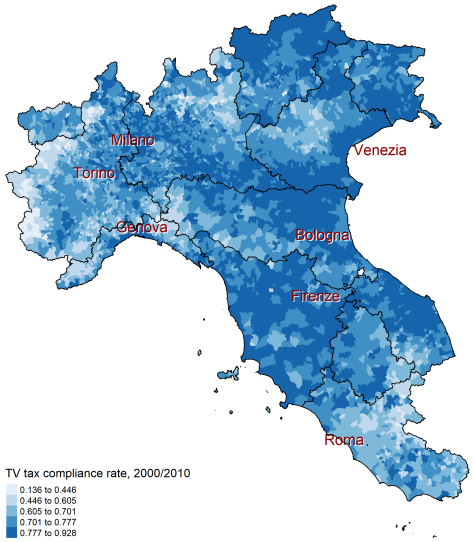
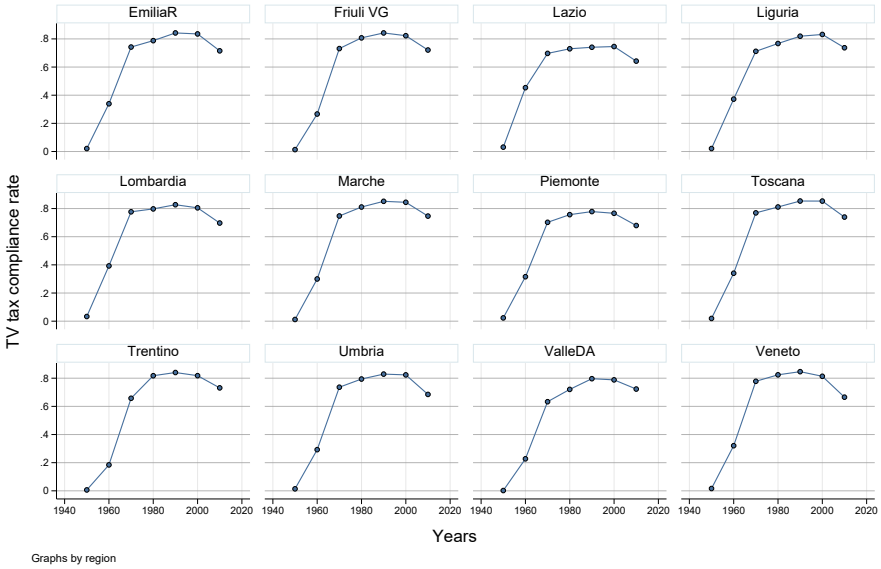


Figure 4.5: Evolution of TV tax compliance rate over time, by region.



the level of civic duty and political participation present in a municipality, given that they are the ones less prone to influences and manipulations, being less affected by economic incentives (Bracco, De Paola, et al., 2015; Cartocci, 2007; Barone and Mocetti, 2016). However, this argument does not apply to all of the referendums, as some of them have clear economic implications which, in turn, can make them the target of manipulations. The ones for which this is the case are excluded from the analysis[25]. We focus on the ones held from the 2000s forward.

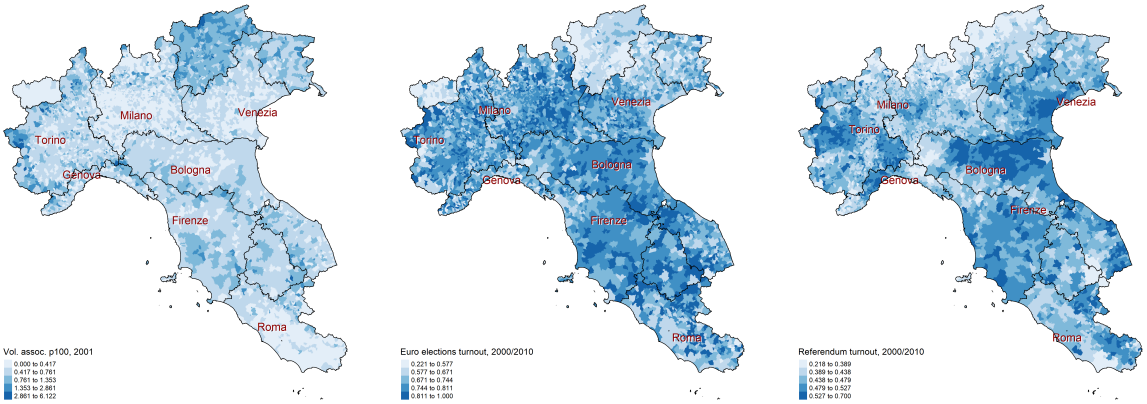
European elections turnout. Similarly to the turnout to referendums, we have collected data on the turnout to European elections from the *Eligendo* portal in the Italian Ministry of the Interior website, as they similarly capture political participation while not being subject to manipulations (Amodio et al., 2012). We focus on those elections that took place from the 2000s onward.

cross-sectional way.

[25] One example is the one held on June 2011 on the abrogation of direct selection of firms for the management of locally relevant economic services

Figure 4.6 shows the geographical distribution of the three variables related to the social capital just described.

Figure 4.6: Maps relative to the number of voluntary associations per capita, the turnout to European election and referendum.



(a) N. vol. assoc. p100, 2000. (b) Avg. turn. euro. ele., 2000/10. (c) Avg. turn. ref. ele., 2000/10.

4.4 Other data

Internal migration. We collected data on internal migration from the *IRPSS*, the Institute of Researches on Population and Social Policies. Specifically, we gathered an arrivals-departure matrix at the province-year level for the whole of Italy, from 1955 to 2014, whose basis is census data from *ISTAT*. We focus our attention on the internal migration from the South to the Centre-North of Italy.

Marshall funds. To proxy for the economic boom that took place in Italy in the 1950s, we gathered data on the Marshall Aid funds from the *Mutual Security Agency* bulletins for the period 1948- 1950[26]. Specifically, for the 1948-1950 period, we have the number of funds allocated to public procurement, constructions and loans to firms at at the municipality level.

Days with bombs. To address the possible endogeneity in the allocation of Marshall Funds, we have collected data on the number of bombing days a municipality in Italy experienced during the II World War from Gagliarducci et al. (2020).

Municipalities characteristics. We collected data on municipality characteristics from *ISTAT* censuses from 1951 to 2011. We have information such as population, employment by macro-sectors and education levels. Table A.1 shows the descriptive statistics of the variables just discussed.

5 Identification strategy

In this section, we explain the identification strategy that we employ to investigate the relationship between organised crime and social capital. In fact, if we were to estimate the following OLS regression,

$$SC_{i,t} = \alpha + \delta M_{i,t} + \gamma_i + \tau_t + \epsilon_{i,t} \tag{1}$$

[26] We are thankful to Michela Giorcelli for sharing these data.

where $SC_{i,t}$ is a measure of social capital in city i at decade t and $M_{i,t}$ is the $log+1$ of the number of news in city i at decade t related to the mafia, this is likely to produce bias estimates for at least three main reasons. First, there may be reverse causation, where we cannot rule out whether low levels of social capital imply mafia presence or the opposite. Second, even assuming that the direction is organised crime affecting social capital, it is known from the relevant literature that the presence of organised crime is endogenous. In fact, we can hypothesize that organised crime may settle and then operate in municipalities with lower levels of social capital. Third, there could be some omitted variables that affect both social capital and mafia presence.

5.1 Empirical specification: forced resettlement

To deal with the issues we have just discussed and hence address potential endogeneity in our estimates, we exploit the forced resettlement law behind the expansion of organised crime to the Centre-North[27] of Italy as a plausible exogenous shock as discussed in section 2[28]. Specifically we estimate the following 2SLS system of equations:

$$M_{i,t} = \alpha + \beta C_{i,t} + \psi \mathbf{X}'_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{2}$$

$$SC_{i,t} = \alpha + \delta \widehat{M_{i,t}} + \psi \mathbf{X}'_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{3}$$

where $SC_{i,t}$ is a measure of social capital in city i at decade t. $M_{i,t}$ is the $log+1$ of the number of news in city i at decade t related to the mafia[29]. $C_{i,t}$ is the instrumental variable, which is a dummy equal to 1 if a city i received a forced resettler. It is equal to 0 in the pre-1970 period, and equal to 1 from 1970 onward (Scognamiglio, 2018). The way we construct our instrumental variable implies that the first stage is formally a 2x2 difference-in-differences. $\mathbf{X'_{i,1950}} * \tau_t$ is a vector of controls in city i in 1950, i.e. baseline, multiplied by decade fixed effects. γ_i, τ_t are city and decade fixed effects. We additionally include either province times decade fixed effects or province linear trends, depending on the specification.

This instrumental variable strategy allow us to estimate the effect of organised crime presence on proxies of social capital for the complying population, i.e. the Local Average Treatment Effect (LATE). As it is custom in instrumental variable strategies, we provide evidence for the *relevance* of the instrument, that is $\beta \neq 0$. As far as the *validity* and the *monotonicity* of the instrument are concerned, that are $Cov(M_{i,t}, \epsilon_{i,t}) = 0$ and absence of defiers respectively, following the previous qualitative and quantitative literature, we argue in their favour. Particularly referring to the *validity* assumption, as mentioned in Section 2, the underlying idea behind the forced resettlement law was to break the ties of the criminal with the organisation of origin. However, for some important figures within the criminal world, there is evidence of influence in the

[27] We also perform a correlation exercise using historical data for the Sicilian context (see Tables C.1 and C.2 in the Appendix C). This analysis is limited since the problem of reverse causality may be at play (Boeri and Vicquéry, 2019) even in IV context (Mellon, 2021) and it is difficult to pin down the exact moment of "birth" of the mafia.

[28] The forced resettlement law has been previously used in the economics of crime literature, which provides evidence in favour of its exogeneity. For instance, Buonanno and Pazzona (2014) examine the interaction between the regional number of criminals affected by the law and migration to study its effect on crime activity. Meanwhile, Scognamiglio (2018) use a difference-in-differences design to estimate the law's impact on criminal activity and employment in the construction sector. Similarly, Caglayan et al. (2021) exploit the forced resettlement law as an instrument at the provincial level to investigate the relationship between organised crime and human capital. Lastly, Pinotti and Stanig (2016), also leverage the law as an instrument to investigate the relationship between organized crime and and crime activity at the municipality level.

[29] To ease the interpretation of the coefficients, we take the log of $SC_{i,t}$ as well.

destination choice (Dipoppa, 2021). We argue that it is unlikely that either the majority of the members of organised crime, or the criminal organisation as a whole, could influence the decision of the judges systematically. Additionally, as it is depicted in Figure 4.3, the distribution of the forced resettlers in our dataset is fairly homogeneous. Ultimately, given the absence of guidelines in the judge's decision, the qualitative evidence of manipulation of the judges' decision, and the fact that social capital does correlate with many aspects of a society, we cannot entirely claim that the forced resettlement law is as good as a randomised experiment.

We then face possible distortions in the application of the forced resettlement law, therefore performing the following empirical exercises. We formally investigate possible differences between treated (mafia receiving) and control (not receiving) municipalities, by performing a t-test on municipalities' characteristics in 1950, divided by these two categories. Table A.2 shows the results of this exercise, where it is possible to note that a few variables exhibit statistically significant differences. They are population, in 1936 and 1950, population density in 1950, owned house index in 1950, illiterate index in 1950, latitude and altitude. To attenuate possible bias introduced by these variables, we include them in the vector of controls interacted with decade dummies. Further, we re-estimate the system of equations 2 and 3 without controls but with a sub-sample resulting from a Propensity Score Matching (PSM), constructed using the previously mentioned variables. Additionally, we exclude possible cases of manipulation in the choice of destination for the forced resettler. Given the difference-in-differences structure of our first-stage, we also estimate the reduced-form of the previous 2SLS system of equation, decomposing the coefficient by decades, to assess the validity of the pre-trends. Lastly, we implement a different IV strategy that does not rely on the use of forced resettlement law.

6 Results

Table 6.1 shows the results of our analysis on the relationship between organised crime, non-instrumented and instrumented using the forced resettlement law, and social capital, proxied by the TV tax compliance rate. Columns (1) to (4) show the OLS estimate referring to Equation 1, while columns (5) to (8) show the 2SLS second stage estimates related to Equation 3. Columns (1) to (4) and (5) to (8) vary depending on the set of fixed effects and controls included in the estimating equations. Specifically, columns (1) and (5) include just year and city fixed effects, columns (2) and (6) add the vector of not balanced controls in 1950 interacted with year dummies, columns (3) and (7) add province times year fixed effect to account for province-specific shocks, while columns (4) and (8) substitute the previous interaction with province linear trends to control for different province-specific trends over time.

Overall, both OLS and 2SLS estimates depict a negative and statistically significant pattern relating to the TV tax compliance rate and the presence of the mafia. Focusing on 2SLS estimates, their values range between -1.877 and -0.568. Taking as a reference the simple average of coefficients between column (6) and (8), a 10% increase in the number of news related to organise crime implies a 6.24% decrease in the TV tax compliance rate. Columns from (5) to (8) report both the Kleibergen-Paap (KP) and the Cragg-Donald (CD) F statistic for weak identifications of the first stage, with values that range from 60.198 to 27.547 and from 157.919 to 65.031 respectively, indicating a strong and relevant first stage relationship.

The fact that 2SLS estimates are of a greater magnitude than the OLS ones implies an upward

Table 6.1: Mafia presence and TV tax compliance rate.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.049***	-0.020***	-0.021***	-0.021***	-1.877***	-0.719***	-0.568***	-0.584***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.251)	(0.186)	(0.178)	(0.158)
N	38381	38381	38381	38381	38381	38381	38381	38381
KP F-Stat					60.198	32.465	27.547	31.562
CD F-Stat					157.919	86.485	65.031	80.984
Mean outcome	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Province * Year FE			✓				✓	
Province linear trends				✓				✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of households. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia in city i at t. The instrumental variable, $Confino_{i,t}$, is a dummy equal to 1 if a city i received a confinato. It is equal to 0 pre-1970 and equal to 1 from 1970 onward. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, province*year fixed effects, and province linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

bias in the OLS. This may be evidence of organised crime self-selecting in municipalities with lower levels of social capital, in this case proxied by the TV tax compliance rate. In such a case, infiltrated cities were already exhibiting lower levels of TV tax compliance rate before the arrival of organised crime, hindering the true effect and biasing the OLS relationship. This bias is then substantially reduced with the implementation of our 2SLS strategy. In particular, given the Stock-Yogo threshold of the first stage CD F statistic of 16.38, we can say that the bias of the 2SLS is substantially less than 10% of that of OLS (Stock and Yogo, 2005; Huntington-Klein, 2021). Moreover, we argue that this LATE is not affected by the presence of defiers. In fact, given the context related to the TV tax, it is unrealistic to think that a person decides to comply more to its payment because a municipality she lives in is the receiver of a forced resettler.

Table 6.2 shows the first stage and the reduced form of the 2SLS estimation relative to the forced resettlement law. Focusing on columns (1) to (4) it is possible to note that the coefficients of the instrument are always statistically significant and positive. This is the sign we would expect, as it is empirical evidence that the forced resettlement law positively predicts the presence of organised crime. This is key to the validity of the analysis. Moreover, focusing on columns (5) to (8), the coefficients of the forced resettlement law turn negative and statistically significant, again supporting the 2SLS strategy at hand.

6.1 Cross-section outcomes

To fully exploit the social capital proxies at our disposal, we investigate the relationship between organised crime presence and social capital in a cross-section fashion. Specifically, this implies testing the effect of organised crime presence on the number of voluntary associations, that proxy for civic engagement, and on the turnout to European elections and to referendums, that proxy for political participation.

Table 6.3 shows the results of this activity. OLS estimates yield meaningful and statistically significant estimates only when looking at the turnout of the European elections. When we focus on the forced resettlement law as an instrument, the coefficients of the dependent variables are negative and statistically significant. For example column (4) shows that an increase of

Table 6.2: First stage and reduced form of forced resettlement.

	First stage				*Reduced form*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Mafia$_{i,t}$				*TV tax compliance rate*			
Confino$_{i,t}$	0.209***	0.154***	0.129***	0.150***	-0.392***	-0.110***	-0.073***	-0.088***
	(0.027)	(0.027)	(0.025)	(0.027)	(0.028)	(0.022)	(0.019)	(0.019)
N	38381	38381	38381	38381	38381	38381	38381	38381
KP F-Stat	60.198	32.465	27.547	31.562				
CD F-Stat	157.919	86.485	65.031	80.984				
Mean outcome					0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Province * Year FE			✓				✓	
Province linear trends				✓				✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of households. The endogenous variable, *Mafia*$_{i,t}$, refers to the log + 1 of the number of news related to the mafia in city i at t. The instrumental variable, *Confino*$_{i,t}$, is a dummy equal to 1 if a city i received a confinato. It is equal to 0 pre-1970 and equal to 1 from 1970 onward. Columns (1), (2), (3) and (4) show first stage estimates, while columns (5), (6), (7) and (8) show reduced form ones. Columns (1), (2), (3) and (4) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification relative to the first stage. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, province*year fixed effects, and province linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

organised crime by 10% yields a decrease in the number of voluntary associations of 0.0198 units, corresponding to a reduction of 3.36%. With respect to the turnout of the European elections, a 10% increase in the presence of organised crime decreases it by 0.0078 units, which is a 1.06% decrease. Lastly, regarding the turnout to referendums, though statistically insignificant with the introduction of controls, a 10% increase in the presence of organised crime implies a decrease in the turnout of 0.002, which is a reduction of 0.44%.

Overall, the 2SLS estimates identify a negative relationship between the presence of organised crime and the cross-sectional outcomes related to social capital investigated here. It is worth mentioning that, given the cross-sectional set-up, these estimates should be taken with care.

7 Robustness checks and additional results

In this section we show the results of several robustness tests aimed at validating our analysis. Moreover, we exploit the richness of our data on forced resettlement, and perform a heterogeneity analysis.

7.1 Inverse hyperbolic sine transformation

We apply a different *log* transformation to our main measure of organised crime: the inverse hyperbolic sine transformation, i.e. $log(x + \sqrt{x^2 + 1})$. We do so in the spirit of the recent empirical literature that shows the process of summing small amounts to a *log* transformation to avoid not losing zeroes can be sensitive to the amount being summed (Bellemare and Wichman, 2020). Table A.3 shows the estimates resulting from the application of this alternative transformation. Reassuringly, the coefficients are in line with the ones from the main estimation.

7.2 TV and radio taxes combined

A possible issue with our measure of TV tax compliance rate relates to disposable income and the earliest period of our sample. In fact, by the 1970s TV ownership is quite diffused, but this is not true in the 1950s and 1960s, as it can be seen from Figure 4.5. In those decades, our measure

Table 6.3: Mafia presence and social capital outcomes, cross-section.

	OLS		2SLS	
	(1)	(2)	(3)	(4)
	Panel A - N. of voluntary associations			
$Mafia_{i,1950\text{-}2000}$	0.001	-0.002	-0.133*	-0.198**
	(0.006)	(0.007)	(0.073)	(0.098)
N	5483	5483	5483	5483
Mean outcome	0.589	0.589	0.589	0.589
	Panel B - European elections turnout			
$Mafia_{i,1950\text{-}2000}$	-0.011***	-0.006***	-0.073***	-0.078***
	(0.002)	(0.002)	(0.023)	(0.029)
N	5483	5483	5483	5483
Mean outcome	0.733	0.733	0.733	0.733
	Panel C - Referendums turnout			
$Mafia_{i,1950\text{-}2000}$	0.001	0.001	-0.019*	-0.020
	(0.001)	(0.001)	(0.011)	(0.014)
N	5483	5483	5483	5483
Mean outcome	0.459	0.459	0.459	0.459
KP F-Stat			20.496	14.466
CD F-Stat			27.341	19.969
SLL FE	✓	✓	✓	✓
Controls		✓		✓

Notes: Dependent variables: the number of voluntary associations per 100 inhabitans in 2001; the avg. turnout to european elections betweem 2000 and 2010; the avg. turnout to referendums between 2000 and 2010. The endogenous variable, $Mafia_{i,1950\text{-}2000}$, refers to the log + 1 of the number of news related to the mafia in city i, averaged over 1950 and 2000.The instrumental variable, $Confino_i$, is a dummy equal to 1 if a city i received a confinato. Columns (1) and (2) show the OLS estimates. Columns (3) and (4) show the 2SLS estimates of the forced resetllement law. Columns (3) and (4) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population in 1950, longitude, latitude and area. All columns include local labor markets areas fixed effects. Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

may be very similar to the measure of households' disposable income, i.e. high or low if a TV is owned or not owned respectively. To overcome this issue, we add to the radio tax compliance rate to the TV tax compliance rate for 1950 and 1960. Figure A.1 shows the evolution of TV and Radio compliance rates over time. It can be seen that the values for radio in 1950s and 1960s are similar to the TV ones in the following decades. Table A.4 shows the main estimates with this newly reconstructed dependent variable. Reassuringly, the economic and statistical significance do not different from the main estimates.

7.3 Propensity score matching

To attenuate the possible imperfections in the design and in the application of the forced re-settlement law, we replicate the analysis with a sub-sample resulting from a PSM exercise[30]. Specifically, we employ a logit estimation, with common support and no replacement. Table A.5 shows the results of this activity, while Table A.6 shows the variables being used in the propensity score algorithm. The choice of these variables is based on the differences shown in Table A.2. The patterns described in Table 6.1 survive, both in the OLS and the 2SLS specifications, with the instrument exhibiting similar levels of strength as in the main first stage.

[30] We used *psmatch2* command in Stata proposed by Leuven and Sianesi (2003)

7.4 Possibly manipulated destinations

As we mentioned in the previous sections, a concern exists regarding possible manipulations in the choice of destination when applying the forced resettlement law. To overcome this, we identify and exclude from the analysis these municipalities that saw any organised crime-related reporting in the pre-law decades, 1950 and 1960.[31] This should allow us to identify choices that we likely manipulated. We then proceed to re-estimate the relationship under investigation. Table A.7 shows the results of this exercise. Reassuringly, estimates remain negative, slightly bigger, and statistically significant.

7.5 Parallel trends of the reduced form

To further assess the validity of our estimates, and given that we employ the forced resettlement law as a difference-in-differences, we aim at assessing the validity of the parallel trends of the reduced form. Indeed, IV estimates could be invalid if treated (receiving) and control (not receiving) municipalities exhibit statistical differences in the pre-period with respect to the outcome. Formally, we estimate the reduced-form of the forced resettlement in a full dynamic specification as follows,

$$SC_{i,t} = \alpha + \sum_{p=-2}^{+4} \beta_P C_{i,p-1} + \psi \mathbf{X'}_{i,1950} * \tau_t + \tau_t + \gamma_i + \delta_p * \tau_t + \epsilon_{i,t} \tag{4}$$

where $SC_{i,t}$ is a measure of social capital in city i at decade t. $C_{i,p}$ is the instrumental variable related to forced resettlement, restructured to be a series of dummy variables, with $p = 0$ in 1970. We inspect up to $p = -2$ decades prior, i.e. 1950 and 1960, and up to $p = +4$ decades after, i.e. from 1980 to 2010. The omitted period is $p = -1$, i.e. 1960. We include the same set of controls $\mathbf{X'}_{i,1950}$ previously used interacted with decade fixed effects. We also add decade and municipality fixed effects, τ_t and $gamma_i$ respectively, and $\delta_p * \tau_t$, that are province times year fixed effects to account for province-specific shocks.

Figure 7.1 shows the results of this exercise. It must be noted that for $p = -2$ there is no sign of statistically significant differences between mafia receiving and not receiving municipalities. This is reassuring with respect to the validity of the forced resettlement law.

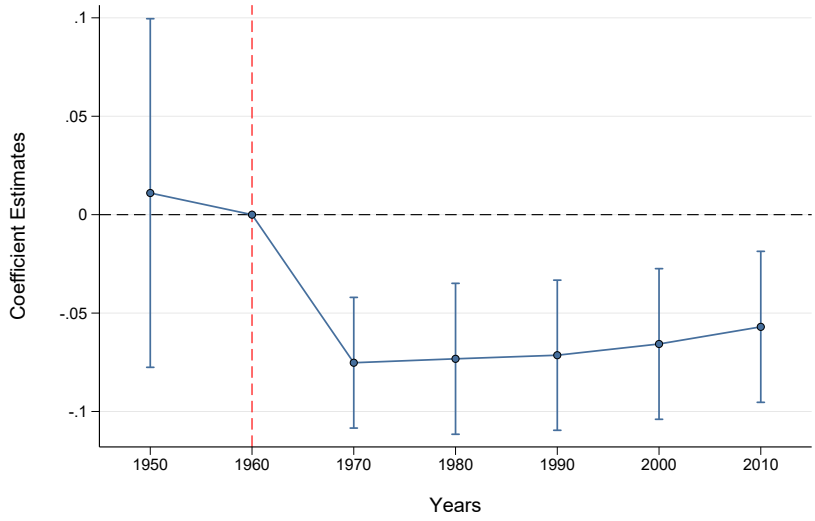
7.6 Alternative empirical specification: migratory movement and Marshall funds

Following Dipoppa (2021)[32], we test the effect of organised crime on social capital using an alternative identification. We combine the public funds' allocation of the Marshall plan, which should proxy for a positive shock to public funds allocation, and migratory movements to the Centre-North as a possible organised crime expansion theory as discussed in section 2.2. We estimate the following 2SLS system of equations:

[31] The excluded municipalities are 445.

[32] Dipoppa (2021) empirically validates the theory suggesting that the expansion of the mafia to the Centre-North could also have been driven by the flow of immigrants from the South and the increasing need of labour demand in the Centre-North. The study shows that the increase in demand for unskilled labour, and in criminals' capacity to fill it by exploiting migrants, allowed Southern Italian mafias to expand to the Centre-North, and that mafia expansion gave a persistent electoral advantage to certain political parties, that were collaborating with them.

Figure 7.1: Full dynamic specification of forced resettlement law instrument.



$$M_{i,t} = \alpha + \delta_1 Mig_{p,t-1} + \delta_2 Mig_{p,t-1} * Marsh_{i,1950} + \delta_3 Marsh_{i,1950} + \\ + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{5}$$

$$SC_{i,t} = \alpha + \beta \widehat{M_{i,t}} + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{6}$$

where $SC_{i,t}$ is the *log* of the measure of social capital in city i at decade t. $M_{i,t}$ is the $log + 1$ of the number of news in city i at decade t related to the mafia. $Mig_{p,t-1}$ is the share of migrants from the south to province p at decade *t-1*. $Marsh_{i,1950}$ is the *log* of funds that a city i received from the Marshall Aid plan in 1950. $\mathbf{X'}_{i,1950} * \tau_t$ is a vector of controls in city i in 1950 multiplied by decade fixed effects[33]. γ_i, τ_t are city and decade fixed effects. We additionally include either region times decade fixed effects or region linear trends, depending on the specification. Given that we analyse migration flows at the province level, we employ region rather than province times decade fixed effects or linear trends to not saturate the model.

Table A.8 shows the results of this test. Specifically, columns (1) to (4) show the OLS estimates referring to Equation 1, while columns (5) to (8) show the 2SLS second stage estimates related to Equation 6. Columns (1) and (5) include just year and city fixed effects, columns (2) and (6) add the vector of covariates at baseline interacted with year dummies, columns (3) and (7) add region times year fixed effect to account for region-specific shocks, while columns (4) and (8) substitute the previous interaction with region linear trends to control for different region-specific trends over time.

The 2SLS estimates still show negative and statistically significant coefficients regarding the effect of the presence of the mafia on the TV tax compliance rate. Compared to the forced resettlement channel, the 2SLS estimates are smaller in magnitude, with values that range between -0.335 and -0.054. Taking as a reference the coefficient of column (2), a 10% increase in the number of news related to organised crime is associated with a 0.82% decrease in the TV tax compliance rate. The reduced magnitude may be due to the more indirect nature of the in-

[33] We keep using the ones derived from the forced resettlement law for comparison.

struments. As such, the interaction between migratory movements and the allocation of public funds does not imply the allocation of members of organised crime as directly the forced resettlement law might be. Columns (5) to (8) still report the KP and CD F statistics of the first stage, with values that range from 27.068 to 10.031 and from 110.521 to 39.883 respectively, indicating a relatively strong and relevant first-stage relationship.

Table A.9 shows both the first stage and the reduced form estimates relative to the specification under discussion. First, in columns (1) to (4) the interaction of the share of migrants from the South to the Centre-North provinces and the log. of the amount of Marshall funds allocated to a municipality predicts positively and with statistical significance the presence of the mafia. As before, both the KP and CD F statistics provide evidence of a strong first stage. Second, in columns (5) to (8), the aforementioned interaction exhibits a pattern of negative coefficients.

Overall, the fact that two alternative IV strategies point to similar conclusions is reassuring with respect to the validity of our estimates and reinforces our findings[34].

7.7 Heterogeneity analysis: mafia type

By exploiting the detailed dataset information about the forced resettlement law, we are able to identify which type of criminal organisation has been exported in which city. *A priori*, we find this heterogeneity exercise interesting because, despite being defined under the same umbrella of criminal organisations, Italian mafias operate with some differences. For example, *Camorra* and *Cosa Nostra* have a reputation for being particularly violent, while *'Ndrangheta* is secretive and tight-knit.

We possess the information related to the origin of each forced resettler, it being either their place of birth of the province in which they were prosecuted. We then assume that the region in which each forced resettler were either born or prosecuted identifies the criminal organisation to which they belonged[35]. We focus on those forced resettlers from one organisation that are either exclusively or in a majority imported in a given city[36]. Lastly, we create a set of dummies that identifies the criminal organisation to which one or more forced resettlers, imported in a given city, belong.

Table A.10 reports the coefficients of a reduced form estimation, that describes the effect of $Confino_{i,t}$ interacted with both $CosaNostra_i$ and $'Ndrangheta_i$, on TV tax compliance. The omitted criminal organisation is $Camorra_i$, reflected by the non-interacted $Confino_{i,t}$ coefficients. It is possible to see that across all the criminal organisations the coefficients are negative, with the ones being more statistically significant being the ones related to the *Camorra* and the *'Ndrangheta*. Specifically, being a municipality with a forced resettler from *Camorra* lowers the TV tax compliance rate by 40.9%, while with a forced resettler from *Cosa Nostra* and *'Ndrangheta* reduces the TV tax compliance rate by 9.7% and 11.5% respectively. It is worth mentioning that,

[34] To account for both possible endogeneity in both the allocation of Marshall Plan funds and in migratory movements, we employ another identification strategy which exploits as an IV the combination of a shift-share instrument of migratory movements and the total bombing days a municipality experienced in the II World War. Appendix D expands on this and provides the necessary details.

[35] In practice, a forced resettler born in Naples is coded as a member of the *Camorra*, the mafia from Campania, while one prosecuted in Palermo is coded as a member of the *Cosa Nostra*, the mafia from Sicily, and lastly, one born in Reggio Calabria is coded as member of the *'Ndrangheta*, the mafia from Calabria. We exclude a few cases in which the forced resettler is neither born nor prosecuted in either of the aforementioned regions. These are 4 cases, where the forced resettlers were from Genova, Roma, Nuoro and Matera, respectively.

[36] In other words, we exclude from the estimating sample those cases in which there are multiple forced resettlers in a given city, but from different organisations. The vast majority of the cases do not belong to this category.

out of 472 remaining cities that received a forced resettler, 249 received it from *Cosa Nostra*, 215 from *'Ndrangheta* and just 8 from *Camorra*. Hence, we have a sample that is not balanced along this dimension, implying that, if the results for *Cosa Nostra* and *'Ndrangheta* are somewhat reliable, the one on *Camorra* can be at the very best an upper bound estimate. Overall, we do not find evidence of heterogeneous effects across different criminal organisations.

8 Potential mechanisms

The findings shown so far indicate that long exposure to organised crime has a substantial and detrimental impact on social capital. This section discusses the factor through which the effect of criminal organisations on social capital unfolds. Specifically, we identify and test the mechanisms at play with each proxy of social capital employed, drawing on the general literature on both organized crime and corruption, as well as the wider body of work on the determinants of social capital. Moreover, to provide a quantitative assessment of the identified mechanisms, we exploit a few relevant questions from the 2001 *ITANES* survey.[37] Table 8.1 shows the results related to this quantitative assessment, which overall support our hypothesis for the mechanisms at play.

Table 8.1: Mafia presence and ITANES 2001 survey outcomes.

	No Crime		*No Tax Ev.*		*No Trust Inst.*		*No Assoc. Vol.*	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$Mafia_{i,1950\text{-}2000}$	0.003	0.006	0.036*	0.058*	0.076*	0.118*	0.026	0.029
	(0.006)	(0.011)	(0.020)	(0.030)	(0.042)	(0.064)	(0.041)	(0.064)
N	2047	2047	2047	2047	2047	2047	2047	2047
KP F-Stat	37.699	126.041	37.699	126.041	37.699	126.041	37.699	126.041
CD F-Stat	53.818	340.706	53.818	340.706	53.818	340.706	53.818	340.706
Mean outcome	0.010	0.010	0.044	0.044	0.806	0.806	0.822	0.822
SLL FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓		✓		✓		✓

Notes: Dependent variables: the probability of reporting crime as not a problem; the probability of reporting tax evasion as not a problem; reporting to have low trust in istitutions; reporting to either not be subscribed or to not participate in a voluntary association activities. The endogenous variable, $Mafia_{i,1950\text{-}2000}$, refers to the log + 1 of the number of news related to the mafia in city i, averaged over 1950 and 2000.The instrumental variable, $Confino_i$, is a dummy equal to 1 if a city i received a confinato. All columns show the 2SLS estimates, with the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population in 1950, longitude, latitude, area, of the city, and sex, age, education, and civil status of the individual. All columns include local labor markets areas fixed effects. Robust standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

We start by focusing on the results related to TV tax compliance, which captures the civic awareness of the local population. The fact that long-term exposure to organised crime activities negatively affects the TV tax compliance rate can be reconciled with the idea that this exposure positively affects the propensity to engage in individualistic and dishonest behaviour, hence reducing pro-social behaviour. The recent work from Gulino and Masera (2023), which looks at the effect of a local corruption scandal on the propensity of stealing by supermarket customers, shows that corruption and dishonest behaviour are indeed contagious. We conjecture a somewhat similar mechanism in our setting, whereby exposure to organised crime positively influences the likelihood of dishonest behaviour, measured by the evasion of the TV tax. To test this hypothesis, we use two *ITANES* questions related to the probability of reporting crime, columns (1) and (2), and tax evasion, columns (3) and (4), as not a problem[38]. The related coefficients show that for exposed citizens dishonest behaviour is more accepted. Specifically,

[37] Unfortunately, we cannot test the mechanisms quantitatively in a panel data setting due to the lack of appropriate proxies for the considered period at the municipal level.

[38] The questions are phrased as "Criminal activity/Tax evasion is a relevant problem".

coefficients related to tax evasion are positive and statistically significant at the 10% level, while the ones related to crime, despite being statistically insignificant, are positive as well. We argue that this is supporting evidence of the mechanism hypothesised.

Secondly, we observe a negative result associated with the number of voluntary associations, which should proxy for civic engagement. Organised crime proposes a socio-cultural and economic framework that relies on extreme values such as selfishness, oppression, cunning, arrogant competition, violence, and power to impose one's dominion over others. Additionally, illegal activities of the mafia often breed distrust and suspicion among community members, causing community disruption. Therefore, their presence can induce a sense of selfishness and distrust in the local community, making people less prone to invest in social capital and leading to a decline in collective initiatives for the common good. In other words, the presence of organised crime generates an environment with reduced collaboration as a result of dread and resignation. We exploit the *ITANES* question about voluntary association subscription. Results are shown in columns (7) and (8)[39]. The coefficients, despite being statistically insignificant, show an increase disinterest toward voluntary association membership and a decrease participation for people that are enrolled. This aspect is suggestive of a decreased interest in the social activities as organised criminals infiltrate.

Lastly, we consider the possible mechanisms behind the negative effects related to the turnout of the referendum and the European elections, acting as proxies for political participation. The arrival of criminal organisations and their engagement in criminal activities often clashes with the state's presence. In the case of mafias migrating towards the Centre-North of Italy, local political and administrative institutions were often oriented towards both denying the mafia's presence and avoiding problems increasingly raised by representatives of the investigative and judicial authorities on the matter (Massari, 1998).[40] The lack of perceived support from the state may lead to lower institutional trust and lower political participation among the population. Yet, previous studies have demonstrated that exposure to corruption may lower institutional trust over the short term. In the context of corruption, Daniele et al. (2023) shows how corruption scandals negatively impact institutional trust in the long term affecting individuals' beliefs. In a similar way, organised crime may erode local communities' social fabric by crowding out state institutions' effectiveness and the rule of law (Alesina et al., 2019). Exploiting a question in the *ITANES* survey that asks about citizens trusts towards institutions, we find support for this mechanism[41]. Specifically, in columns (5) and (6) we show that people exhibit a lower level of trust toward institutions, with coefficients relating organised crime presence and institutional distrust being positive and significant at the 10% level.

9 Conclusion

Organised crime is a pervasive phenomenon that has been and is being studied with increasing interest in the economics literature. However, to the best of our knowledge, this literature has

[39] The question asks to the participant if she is either subscribed to a voluntary association, or if she is but never participate to its activities, or if she participates to its activities.

[40] In this instance, the words of some mayors and administrators of large northern cities appear significant, who, on the occasion of public demonstrations or interviews with the press, have come to despise anyone who tries to raise the question of mafia infiltration in contexts under examination.

[41] The question asks the participant her level of trust to, respectively, the Parliament, the parties and the President of the Republic.

not provided extensive evidence on the relationship between organised crime and social capital. In this paper, we combine multiple historical data sources and employ novel ones to study the consequences of long-term exposure to organised crime activities on social capital related outcomes.

We focus on Italy as a case study and investigate this relationship in the context of the organized crime presence in the Centre-North, exploiting the application of forced resettlement as a plausible exogenous shock in an instrumental variable setting. The results reveal that long-term exposure to mafia presence depresses proxies of social capital, represented by the compliance rate of the TV tax. The magnitude of the effect is substantial. Further, we investigate cross-sectionally the negative effect on other proxies for social capital, which are the number of voluntary associations, the European elections and referendums turnout. We then provide suggestive evidence of the mechanisms behind these findings. The reduction in the TV tax compliance rate is linked with a higher acceptability of tax evasion, likely due to a higher acceptability of crime and hence of dishonest behaviour. The reduction in the number of voluntary associations is tied to a lower participation and interest in such activities, plausibly due to the environment based on distrust that organised crime promotes. Lastly, the reduction in political participation is linked to a lower institutional trust, likely deriving from both the denial and the inability of the state in fighting organised crime, as well as from corruption episodes in the political sphere.

Overall we document the existence of a meaningful relationship between long-term exposure to organised crime activities and social capital. This study is significant with respect to the socio-economic effects of perceiving the risk posed by criminal organisations. Thus, the findings indicate that the influence of mafias on social capital does not take into account factors such as geography, culture, or economic growth, suggesting that transplanted mafias can be just as effective as their native counterparts in inhibiting the accumulation of social capital.

Our work represents an advance toward a deeper understanding of the impact of organized crime on social outcomes. It represents one of the first attempts of the economic literature to move in this direction, and as such, it may benefit from additional research. Criminal organizations deeply affect the social fabric of the territory in which they operate, making the unraveling of the connection between organised crime and social outcomes an important task. In fact, the implications of a damaged local social capital can have deep impacts on various aspects related to the development of a well-operating society, that may be difficult to eradicate.

The findings of our study have straightforward and meaningful implications both for policymakers and academics alike. They may explain the dynamics of organized crime presence in the territory. Scholars have highlighted how criminal organizations directly affect local communities, though social control and the accumulation of social capital are key components for their development. Secondly, as pointed out by judge Borsellino[42], the fight against the mafia was not supposed to be only a detached war of repression but a cultural and moral movement. Our findings may help design effective counter-organized crime measures since social capital is an essential component for their success. Lastly, since other countries could be experiencing a similar phenomenon of active criminal organizations in the territory or mafia transplantation, it would be interesting to investigate this issue as a prevention mechanism.

[42] He was an Italian judge and prosecuting magistrate, killed by a car bomb in Palermo. Together with Giovanni Falcone, he spent most of his professional life trying to overthrow the power of the Sicilian Mafia.

References

Acemoglu, Daron, Giuseppe De Feo, and Giacomo Davide De Luca (2020). "Weak states: Causes and consequences of the Sicilian Mafia". In: *The Review of Economic Studies* 87.2, pp. 537–581.

Alesina, Alberto, Salvatore Piccolo, and Paolo Pinotti (2019). "Organized crime, violence, and politics". In: *The Review of Economic Studies* 86.2, pp. 457–499.

Alongi, Giuseppe (1887). *La mafia nei suoi fattori e nelle sue manifestazioni: studio sulle classi pericolose della Sicilia*. Bocca.

Amodio, Francesco et al. (2012). "Hard to forget: long-lasting effects of social capital accumulation shocks". In: *Universitat Pompeu Fabra. Faculta de Economia de Forlí, Working paper* 105.

Bandiera, Oriana (2003). "Land reform, the market for protection, and the origins of the Sicilian mafia: theory and evidence". In: *Journal of Law, Economics, and Organization* 19.1, pp. 218–244.

Banerjee, Ritwik (2016). "Corruption, norm violation and decay in social capital". In: *Journal of Public Economics* 137, pp. 14–27.

Barone, Guglielmo and Sauro Mocetti (2016). "Inequality and trust: new evidence from panel data". In: *Economic Inquiry* 54.2, pp. 794–809.

Barone, Guglielmo and Gaia Narciso (2015). "Organized crime and business subsidies: Where does the money go?" In: *Journal of Urban Economics* 86, pp. 98–110.

Bellemare, Marc F and Casey J Wichman (2020). "Elasticities and the inverse hyperbolic sine transformation". In: *Oxford Bulletin of Economics and Statistics* 82.1, pp. 50–61.

Boeri, Filippo and Roger Vicquéry (2019). "Social Capital and the Monopoly of Violence: An Empirical Analysis of the Rise of Sicilian Mafia". In: *Working paper, unpublished*.

Bracco, Emanuele, Maria De Paola, and Colin P Green (2015). "Long lasting differences in civic capital: evidence from a unique immigration event in Italy". In: *Journal of Economic Behavior & Organization* 120, pp. 160–173.

Bracco, Emanuele, Federica Liberini, Ben Lockwood, Francesco Porcelli, Michela Redoano, Daniel Sgroi, et al. (2021). *The Effects of Social Capital on Government Performance and Turnover: Theory and Evidence from Italian Municipalities*. Tech. rep. Quantitative and Analytical Political Economy Research Centre.

Buonanno, Paolo, Ruben Durante, Giovanni Prarolo, and Paolo Vanin (2015). "Poor institutions, rich mines: Resource curse in the origins of the sicilian mafia". In: *The Economic Journal* 125.586, F175–F202.

Buonanno, Paolo and Matteo Pazzona (2014). "Migrating mafias". In: *Regional Science and Urban Economics* 44, pp. 75–81.

Buonanno, Paolo, Giacomo Plevani, and Marcello Puca (2023). "Earthquake hazard and civic capital". In: *European Journal of Political Economy*, p. 102367.

Caglayan, Mustafa, Alessandro Flamini, and Babak Jahanshahi (2021). "Hindering human capital accumulation: A hidden cost of the silent mafia?" In: *Journal of Economic Behavior & Organization* 188, pp. 828–845.

Calamunci, Francesca and Francesco Drago (2020). "The economic impact of organized crime infiltration in the legal economy: Evidence from the judicial administration of organized crime firms". In: *Italian Economic Journal* 6.2, pp. 275–297.

Calderoni, Francesco (2011). "Where is the mafia in Italy? Measuring the presence of the mafia across Italian provinces". In: *Global Crime* 12.1, pp. 41–69.

Camera, dei deputati and della Repubblica Senato (1972). *Commissione Parlamentare di inchiesta sul fenomeno della mafia in Sicilia, Relazione sui lavori svolti e sullo stato del fenomeno mafioso al termine della V Legislatura, (relatore: Cattanei), V Legislatura, Roma*. Tech. rep.

Camera, dei deputati and della Repubblica Senato (1976). *Commissione, Parlamentare di inchiesta sul fenomeno della mafia in Sicilia, Relazione conclusiva (relatore: Carraro), VI Legislatura, Roma*. Tech. rep.

Card, David (2001). "Immigrant inflows, native outflows, and the local labor market impacts of higher immigration". In: *Journal of Labor Economics* 19.1, pp. 22–64.

Cartocci, Roberto (2007). *Mappe del tesoro: atlante del capitale sociale in Italia*. Vol. 168. Il mulino.

Ciconte, Enzo (2010). *Ndrangheta padana*. Rubbettino Editore.

Claridge, Tristan (2004). "Social capital and natural resource management". In: *Unpublished Thesis, University of Queensland, Brisbane, Australia*.

Coniglio, Nicola Daniele, Giuseppe Celi, Cosimo Scagliusi, et al. (2010). "Organized crime, migration and human capital formation: Evidence from the South of Italy". In: *Southern Europe Research in Economic Studies*.

Cutrera, Antonino (1900). *La Mafia e i mafiosi: origini e manifestazioni*. A. Reber.

Daniele, Gianmarco, Arnie Aassve, and Marco Le Moglie (2023). "Never Forget the First Time: The Persistent Effects of Corruption and the Rise of Populism in Italy". In: *The Journal of Politics*. DOI: 10.1086/723019.

De Feo, Giuseppe and Giacomo Davide De Luca (2017). "Mafia in the ballot box". In: *American Economic Journal: Economic Policy* 9.3, pp. 134–67.

Di Cataldo, Marco and Nicola Mastrorocco (Oct. 2021). "Organized Crime, Captured Politicians, and the Allocation of Public Resources". In: *The Journal of Law, Economics, and Organization*. ewab015.

Dimico, Arcangelo, Alessia Isopi, and Ola Olsson (2017). "Origins of the sicilian mafia: The market for lemons". In: *The Journal of Economic History* 77.4, pp. 1083–1115.

Dipoppa, Gemma (2021). "How Criminal Organizations Expand to Strong States: Migrant Exploitation and Political Brokerage in Northern Italy". In: *APSA Preprints*. DOI: 10.33774/apsa-2021-kq3b6.

Dugato, Marco, Francesco Calderoni, and Gian Maria Campedelli (2020). "Measuring organised crime presence at the municipal level". In: *Social Indicators Research* 147.1, pp. 237–261.

Durante, Ruben, Nicola Mastrorocco, Luigi Minale, and James M Snyder Jr (2023). "Unpacking social capital". In: *National Bureau of Economic Research*.

Durante, Ruben, Paolo Pinotti, and Andrea Tesei (2019). "The political legacy of entertainment TV". In: *American Economic Review* 109.7, pp. 2497–2530.

Durlauf, Steven N (2002). "On the empirics of social capital". In: *The economic journal* 112.483, F459–F479.

Fauri, Francesca (2006). *Il piano Marshall e l'Italia*. Società editrice il Mulino.

Fofi, Goffredo (1964). *L'immigrazione meridionale a Torino*. Vol. 117. Feltrinelli.

Franchetti, Leopoldo and Sidney Sonnino (1877). *La Sicilia nel 1876*. Vol. 1. G. Barbèra.

Gagliarducci, Stefano, Massimiliano Gaetano Onorato, Francesco Sobbrio, and Guido Tabellini (2020). "War of the waves: Radio and resistance during World War II". In: *American Economic Journal: Applied Economics* 12.4, pp. 1–38.

Gentzkow, Matthew, Jesse M Shapiro, and Matt Taddy (2019). "Measuring group differences in high-dimensional choices: method and application to congressional speech". In: *Econometrica* 87.4, pp. 1307–1340.

Giorcelli, Michela and Nicola Bianchi (2021). *Reconstruction Aid, Public Infrastructure, and Economic Development: The Case of the Marshall Plan in Italy*. Tech. rep. National Bureau of Economic Research.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales (2004). "The role of social capital in financial development". In: *American economic review* 94.3, pp. 526–556.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales (2008). "Social capital as good culture". In: *Journal of the European economic Association* 6.2-3, pp. 295–320.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales (2011). "Civic capital as the missing link". In: *Handbook of social economics* 1, pp. 417–480.

Gulino, Giorgio and Federico Masera (2023). "Contagious dishonesty: Corruption scandals and supermarket theft". In: *American Economic Journal: Applied Economics* forthcoming.

Huntington-Klein, Nick (2021). *The effect: An introduction to research design and causality*. CRC Press.

Le Moglie, Marco and Giuseppe Sorrenti (2022). "Revealing "Mafia Inc."? Financial Crisis, Organized Crime, and the Birth of New Enterprises". In: *The Review of Economics and Statistics* 104.1, pp. 142–156.

Leuven, Edwin and Barbara Sianesi (2003). "PSMATCH2: Stata module to perform full Mahalanobis and propensity score matching, common support graphing, and covariate imbalance testing". In.

Massari, Monica (1998). "Gli insediamenti mafiosi nelle aree «non tradizionali»". In: *Quaderni di sociologia* 18, pp. 5–27.

Mellon, Jonathan (2021). "Rain, Rain, Go Away: 176 potential exclusion-restriction violations for studies using weather as an instrumental variable". In: *Available at SSRN 3715610*.

Melnikov, Nikita, Carlos Schmidt-Padilla, and Maria Micaela Sviatschi (2020). *Gangs, labor mobility and development*. Tech. rep. National Bureau of Economic Research.

Mirenda, Litterio, Sauro Mocetti, and Lucia Rizzica (2022). "The Economic Effects of Mafia: Firm Level Evidence". In: *American Economic Review* 112.8, pp. 2748–73.

Nannicini, Tommaso, Andrea Stella, Guido Tabellini, and Ugo Troiano (2013). "Social capital and political accountability". In: *American Economic Journal: Economic Policy* 5.2, pp. 222–50.

Paci, Massimo (1973). *Mercato del lavoro e classi sociali in Italia: ricerche sulla composizione del proletariato*. Vol. 27. Il mulino.

Piemontese, Lavinia (2020). "Uncovering Illegal and Underground Economies: The Case of Mafia Extortion Racketeering". In: *GATE WP*.

Pinotti, Paolo (2015). "The economic costs of organised crime: Evidence from Southern Italy". In: *The Economic Journal* 125.586, F203–F232.

Pinotti, Paolo and Piero Stanig (2016). "Sowing the mafia: A natural experiment". In: *Unpublished Paper*.

Putnam, Robert D (2000). *Bowling alone: The collapse and revival of American community*. Simon and schuster.

Putnam, Robert D, Robert Leonardi, and Rafaella Y Nanetti (1992). *Making democracy work: Civic traditions in modern Italy*. Princeton university press.

Rolla, Pierfrancesco and Patricia Justino (2022). *The social consequences of organized crime in Italy*. Tech. rep. World Institute for Development Economic Research (UNU-WIDER).

Rosenbaum, Paul R and Donald B Rubin (1985). "Constructing a control group using multivariate matched sampling methods that incorporate the propensity score". In: *The American Statistician* 39.1, pp. 33–38.

Sabatini, Fabio (2008). "Social capital and the quality of economic development". In: *Kyklos* 61.3, pp. 466–499.

Sciarrone, Rocco (1998). *Mafie vecchie, mafie nuove: radicamento ed espansione*. Donzelli editore.

Scognamiglio, Annalisa (2018). "When the mafia comes to town". In: *European Journal of Political Economy* 55, pp. 573–590.

Shen, Zejiang, Ruochen Zhang, Melissa Dell, Benjamin Charles Germain Lee, Jacob Carlson, and Weining Li (2021). "LayoutParser: A Unified Toolkit for Deep Learning Based Document Image Analysis". In: *arXiv preprint arXiv:2103.15348*.

Smuraglia (1994). *Commissione Parlamentare d'inchiesta sul fenomeno della mafia e sulle altre associazioni criminali similari, Relazione sulle risultanze del gruppo di lavoro incaricato di svolgere accertamenti su insediamenti ed infiltrazioni di soggetti ed organizzazioni mafiose in aree non tradizionali (relatore: Smuraglia), XI Legislatura, Roma,* tech. rep.

Stock, James H and Motohiro Yogo (2005). "Testing for weak instruments in linear IV regression". In: *Identification and inference for econometric models: Essays in honor of Thomas Rothenberg*. Cambridge University Press.

Tabellini, Marco (2020). "Gifts of the immigrants, woes of the natives: Lessons from the age of mass migration". In: *The Review of Economic Studies* 87.1, pp. 454–486.

Transcrime (2013). *Progetto PON sicurezza 2007-2013*. Tech. rep. Università Cattolica del Sacro Cuore of Milan.

Varese, Federico (2011). *Mafias on the Move*. Princeton University Press.

Villari, Pasquale (1978). *Le lettere meridionali*. Guida.

Appendix A Main Appendix

Table A.1: Descriptive statistics of main variables.

	N	mean	sd	p10	p50	p90
Organised crime presence						
Log. of Mafia news	38381.00	0.20	0.68	0.00	0.00	0.69
Forced resettlement						
Confino	38381.00	0.09	0.29	0.00	0.00	0.00
N. cities w/Confino	499.00	-	-	-	-	-
Migration, Marshall, bombs						
Share of migrants from South	38381.00	0.03	0.03	0.01	0.02	0.06
Log. of Marshall funds	38381.00	3.72	6.61	0.00	0.00	15.56
Bombing days	38381.00	0.73	3.48	0.00	0.00	1.00
Social capital						
TV tax compliance	38381.00	0.55	0.31	0.01	0.69	0.85
Referendum turnout (avg. 2000-2010)	5483.00	0.46	0.05	0.40	0.46	0.53
N. vol. ass. p100 inhab. (2001)	5483.00	0.59	0.43	0.24	0.49	1.04
Euro. elections turnout (avg. 2000-2010)	5483.00	0.73	0.09	0.61	0.75	0.83
Municipalities characteristics						
Population (1936)	5483.00	5105.83	26935.18	888.00	2353.00	7990.00
Population	38381.00	6355.96	44952.12	476.00	2165.00	10260.00
Pop. density	38381.00	239.33	442.94	26.00	114.31	542.34
Elderly index	38381.00	1.23	1.21	0.35	0.95	2.32
Avg. household size	38381.00	3.03	0.76	2.23	2.86	4.07
Educ. gender gap	38381.00	1.33	0.66	0.90	1.16	1.92
Illiteracy index	38381.00	0.02	0.04	0.00	0.01	0.06
Owned houses index	38381.00	69.02	16.73	43.55	73.53	86.10
Workforce participation rate	38381.00	55.76	7.41	47.49	55.76	66.07

Notes: this tables shows the descriptive statistics of the variables that at our disposal in the time varying analysis.

Table A.2: Balance table by forced resettlement law.

	Not-Confino	Confino	Diff. (NC - C)	SE	N
Population (1936)	4794.762	8724.612	-3929.849***	(1346.535)	5483
Population (1950)	5141.040	9453.308	-4312.267**	(1677.049)	5483
Pop. density (1950)	179.866	298.230	-118.364***	(13.019)	5483
Elderly index (1950)	0.486	0.471	0.015	(0.013)	5483
Avg. household size (1950)	4.055	4.088	-0.033	(0.039)	5483
Owned houses index (1950)	54.390	40.331	14.059***	(1.077)	5483
Educ. gender gap (1950)	1.691	1.614	0.077	(0.049)	5483
Illiterate index (1950)	0.059	0.075	-0.016***	(0.003)	5483
Workforce participation rate (1950)	56.352	55.991	0.360	(0.371)	5483
Log. mafia news (avg. 50/00)	0.918	1.083	-0.165***	(0.031)	5483

Notes: * p<0.10, ** p<0.05, *** p<0.01.

Table A.3: Mafia presence and TV tax compliance rate, inverse hyperbolic sine transformation.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.040***	-0.018***	-0.018***	-0.018***	-1.575***	-0.582***	-0.459***	-0.472***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.211)	(0.148)	(0.142)	(0.126)
N	38381	38381	38381	38381	38381	38381	38381	38381
KP F-Stat					60.583	34.626	29.454	33.745
CD F-Stat					153.396	89.267	67.525	83.931
Mean outcome	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Province * Year FE			✓				✓	
Province linear trends				✓				✓

Notes: Dependent variables: the log of the ratio of the number of TVs over the number of households. The endogenous variable, $Mafia_{i,t}$, refers to the $log(x + \sqrt{x^2 + 1})$ of the number of news related to the mafia in city i at t. The instrumental variable, $Confino_{i,t}$, is a dummy equal to 1 if a city i received a confinato. It is equal to 0 pre-1970 and equal to 1 from 1970 onward. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, province*year fixed effects, and province linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Figure A.1: Evolution of TV and radio tax compliance rates over time.

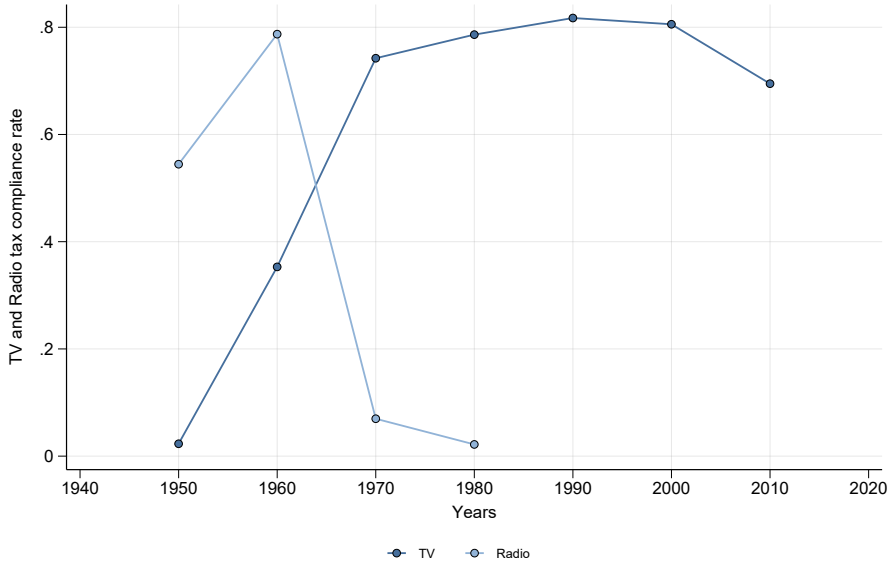


Table A.4: TV and Radio tax compliance rate combined.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.015***	-0.009***	-0.004*	-0.008***	-0.459***	-0.228***	-0.177**	-0.193***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.070)	(0.072)	(0.073)	(0.064)
N	38381	38381	38381	38381	38381	38381	38381	38381
KP F-Stat					60.198	32.465	27.547	31.562
CD F-Stat					157.919	86.485	65.031	80.984
Mean outcome	0.703	0.703	0.703	0.703	0.703	0.703	0.703	0.703
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Province * Year FE			✓				✓	
Province linear trends				✓				✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of households. This is summed with the ratio of the number of radios over the number of households for the 1950 and 1960 decades. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia in city i at t. The instrumental variable, $Confino_{i,t}$, is a dummy equal to 1 if a city i received a confinato. It is equal to 0 pre-1970 and equal to 1 from 1970 onward. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, province*year fixed effects, and province linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A.5: Mafia presence and TV tax compliance rate, PSM estimates.

	OLS			2SLS		
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel C - TV tax compliance rate					
$Mafia_{i,t}$	-0.041***	-0.052***	-0.041***	-0.446*	-0.469**	-0.437**
	(0.008)	(0.008)	(0.008)	(0.238)	(0.218)	(0.187)
N	6790	6776	6790	6790	6776	6790
KP F-Stat				21.543	19.076	21.340
CD F-Stat				30.833	25.928	30.286
Mean outcome	0.553	0.553	0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓
Province * Year FE		✓			✓	
Province linear trends			✓			✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of families. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia in city *i* at *t*.The instrumental variable, $Confino_{i,t}$, is a dummy equal to 1 if a city *i* received a confinato. It is equal to 0 pre-1970 and equal to 1 in 1970 an onward. In all columns the estimating sample is restricted to the matched one. Columns (1), (2) and (3) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (4), (5) and (6) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Depending on the specification, we include city fixed effects, year fixed effects, province*year fixed effects, and province linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A.6: Matching balancing test.

	Mean		t-test	
Variables	Treated	Control	t	p-value
Population (1936)	9278.3	7921	1.09	0.278
Population (1950)	10346	8843.6	1.01	0.311
Pop. density (1950)	300.52	266.17	1.61	0.109
Owned houses index (1950)	40.143	39.062	0.98	0.328
Illiteracy index (1950)	0.074	0.079	-1.19	0.235

Notes: this tables shows the variables that were used in the matching algorithm.

Table A.7: Mafia presence and TV tax compliance rate, exclusion of possibly manipulated destinations.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.060***	-0.032***	-0.020***	-0.030***	-2.530***	-1.063***	-0.699**	-0.787***
	(0.007)	(0.006)	(0.005)	(0.005)	(0.426)	(0.365)	(0.324)	(0.298)
N	35266	35266	35266	35266	35266	35266	35266	35266
KP F-Stat					38.534	15.115	12.177	14.570
CD F-Stat					127.497	47.536	35.288	43.175
Mean outcome	0.549	0.549	0.549	0.549	0.549	0.549	0.549	0.549
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Province * Year FE			✓				✓	
Province linear trends				✓				✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of households. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia in city *i* at *t*. The instrumental variable, $Confino_{i,t}$, is a dummy equal to 1 if a city *i* received a confinato. It is equal to 0 pre-1970 and equal to 1 from 1970 onward. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, province*year fixed effects, and province linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A.8: Mafia presence and TV tax compliance rate, lagged migratory movements and Marshall funds.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.049***	-0.020***	-0.014***	-0.020***	-0.335***	-0.082**	-0.055	-0.372***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.064)	(0.036)	(0.042)	(0.076)
N	38381	38381	38381	38381	32898	32898	32898	32898
KP F-Stat					27.068	21.480	9.994	19.124
CD F-Stat					110.521	70.909	39.719	65.064
Mean outcome	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Region * Year FE			✓				✓	
Region linear trends				✓				✓

Notes: Dependent variable: the log ratio of the number of TVs over the number of households. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia at *t*.The instrumental variables, $Mig_{p,t-1}$ and $Mig_{p,t-1}$*$Marsh_{i,1950}$, are the share of migrants from the south to province *p* at time *t-1* and its interaction with the log amount of funds that city *i* received from the Marshall Aid plan in 1950, respectively. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, region*year fixed effects, and region linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A.9: First stage and reduced form of lagged migratory movements and Marshall funds.

	First stage				*Reduced form*			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	$Mafia_{i,t}$				*TV tax compliance rate*			
$Mig_{p,t-1}$	0.471***	0.523***	0.248	0.538***	-0.355***	-0.129***	-0.060	-0.620***
	(0.139)	(0.143)	(0.159)	(0.149)	(0.047)	(0.045)	(0.051)	(0.059)
$Mig_{p,t-1}$*$Marsh_{i,1950}$	0.232***	0.169***	0.153***	0.174***	-0.059***	-0.004	-0.006	-0.020***
	(0.039)	(0.037)	(0.038)	(0.038)	(0.010)	(0.007)	(0.007)	(0.007)
N	32898	32898	32898	32898	32898	32898	32898	32898
KP F-Stat	27.068	21.480	9.994	19.124				
CD F-Stat	110.521	70.909	39.719	65.064				
Mean outcome					0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Region * Year FE			✓				✓	
Region linear trends				✓				✓

Notes: Dependent variables: the log + 1 of the number of news related to the mafia; the log ratio of the number of TVs over the number of households. The instrumental variables, $Mig_{p,t-1}$ and $Mig_{p,t-1}$*$Marsh_{i,1950}$, are the share of migrants from the south to province *p* at time *t-1* and its interaction with the log amount of funds that city *i* received from the Marshall Aid plan in 1950, respectively. Columns (1), (2), (3) and (4) show the first stage estimates. Columns (5), (6), (7) and (8) show the reduced form estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, region*year fixed effects, and region linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table A.10: Mafia-type heterogeneity in forced resettlement and TV tax compliance rate.

	TV tax compliance rate	
	(1)	(2)
$Confino_{i,t}$	-0.755***	-0.409***
	(0.149)	(0.079)
$Confino_{i,t}$ * *Cosa Nostra*$_i$	0.368**	0.313***
	(0.154)	(0.084)
$Confino_{i,t}$ * *'Ndrangheta*$_i$	0.373**	0.295***
	(0.154)	(0.085)
$C_{i,t}$ + $C_{i,t}$ * CN_i	-0.387***	-0.096***
	(0.039)	(0.031)
$C_{i,t}$ + $C_{i,t}$ * $'N_i$	-0.381***	-0.115***
	(0.039)	(0.033)
N	38192	38192
Mean outcome	0.553	0.553
Year and City FE	✓	✓
Controls		✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of households. The instrumental variable, $Confino_{i,t}$ or ($C_{i,t}$), is a dummy equal to 1 if a city i received a confinato. It is equal to 0 pre-1970 and equal to 1 in 1970 and onward. The instrument is interacted with two dummies, namely *Cosa Nostra*$_i$ or (CN_i) and *'Ndrangheta*$_i$ or ($'N_i$), the omitted dummy being *Camorra*$_i$. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects and year fixed effects. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Appendix B Examples of news related to organised crime

We report some examples of an article related to organised crime present in our extracted sample.

2 Martedì 1 Aprile 1975

I roghi di S. Maria Maggiore

Due disastri in un mese: è la mafia?

DAL NOSTRO INVIATO

S. Maria Maggiore, 1 aprile

Le indagini sullo spaventoso rogo dell'*Excelsior*, che ha fatto quindici vittime, sembrano entrare in un vicolo cieco. Manca ancora una spiegazione plausibile e ufficiale sulle origini del sinistro. Si attendono le conclusioni della commissione di funzionari, dei vigili del fuoco e della prefettura civile, che è stata insediata, subito dopo la sciagura, dal ministro Gui.

I tecnici della commissione hanno compiuto numerosi sopralluoghi fra le rovine dell'albergo e hanno prelevato reperti che sono stati definiti «molto significativi».

Domani tornerà a Santa Maria Maggiore anche il perito giudiziario, ing. Norberto Bobbio, che è stato incaricato di seguire rilievi tecnici dal sostituto procuratore della Repubblica di Verbania, dott. Claudio De Angelis, che dirige l'inchiesta. La sua relazione avrà spesso a confronto con quella della commissione ministeriale.

Fra gli inquirenti, si sta facendo strada la convinzione che l'incendio sia divampato per cause accidentali. Lo ha detto chiaramente il capo della Criminalpol del Piemonte, dott. Monteleone. Tutte le piste finora battute si sono rivelate infruttuose; le tracce che sembravano promettere interessanti sviluppi hanno perso consistenza. Alla caserma dei carabinieri di Santa Maria Maggiore, il colonnello Patti e il capitano Ambrosio hanno interrogato decine di persone: protagonisti, superstiti, soccorritori. Si è scavato nei loro ricordi alla ricerca di qualche particolare che possa far luce sulla misteriosa tragedia.

Se l'incendio è doloso, le ipotesi che trovano maggior credito sono quella di una vendetta, maturata nel mondo delle agenzie di viaggio che convogliano in Italia i turisti stranieri, o anche quella di un piromane isolato, che avrebbe agito sotto la spinta di un folle impulso distruttivo.

Secondo le voci che circolano in paese, la mafia avrebbe allungato i suoi tentacoli alle principali località turistiche e il rogo dell'*Excelsior* sarebbe null'altro che un momento della guerra che si è scatenata fra cosche concorrenti. Questo spiegherebbe anche l'incendio che esattamente un mese prima aveva devastato l'altro grande albergo di Santa Maria Maggiore, lo «*Sporting*». E' vero che lo «*Sporting*» era chiuso, ma avrebbe dovuto riaprire entro pochi giorni proprio per ospitare comitive di tranesi. Ci sono coincidenze che fanno meditare. Lo «*Sporting*» bruciò il 27 febbraio; all'«*Excelsior*» le fiamme sono divampate il 27 marzo.

Adriano Velli

1) The article talks about a hotel set on fire in the city of Santa Maria Maggiore, in the province of Verbania, Piedmont. *"Is it the mafia? [...] The investigations into the appalling fire at the Excelsior, which claimed fifteen lives, seem to hit a dead end. There is still no plausible and official explanation of the origins of the accident. [...] According to rumors circulating in the country, the mafia would have extended its tentacles to the main tourist resorts and the burning of the Excelsior would be nothing more than a moment of the war that has been unleashed between rival gangs."*

Nuovo sanguinoso episodio in provincia di Milano

Sparano dall'auto e uccidono un barista Eliminato perché rimodernava il locale?

(Dal nostro corrispondente)

Milano, 31 giugno.

Un uomo è stato ucciso la scorsa notte all'interno di un bar gestito dalla moglie da 2 rivoltellate sparate da bordo di una Bmw che si è subito dileguata. Secondo i primi accertamenti dei carabinieri non ha alcun movente politico anche se la vittima ricopriva la carica di vice presidente della sezione combattenti e reduci di Lainate piccolo paese a una ventina di chilometri da Milano: si tratta con tutta probabilità di una vendetta, anche se forse gli assassini volevano semplicemente limitarsi ad un avvertimento e solo per pura fatalità i proiettili hanno colpito Primerano.

La vittima è Salvatore Primerano, di 52 anni, originario di Catanzaro, operaio in uno stabilimento della zona. Il drammatico fatto di sangue è avvenuto poco prima di mezzanotte. Nei locali del «Crai, Circolo combattenti e reduci» gestito dalla moglie della vittima, Rosa Donato, di 46 anni. La donna in quei momenti era in casa, proprio sopra il bar nelle stanze di via Modena 15, in piano contro del paese.

Da qualche giorno il locale era chiuso al pubblico per permettere di eseguire lavori di restauro che a quanto pare avrebbero dovuto essere ultimati lunedì prossimo. La porta, a vetri smerigliati del Crai era chiusa e dall'esterno si vedeva solo la luce accesa. Improvvisamente davanti allo stabile di via Modena 15 si è fermata una fiat 'Bianca con a bordo 4 persone: da uno dei finestrini si è sparato una trano arma-

Milano. Salvatore Primerano, la moglie Maria Rosa Donato e la figlia Concetta

vu parlando con i due operai sui lavori che avrebbero dovuto essere ultimati lunedì prossimo. La porta, a vetri smerigliati del Crai era chiusa e dall'esterno si vedeva solo la luce accesa. Improvvisamente davanti allo stabile di via Modena 15 si è fermata una fiat 'Bianca con a bordo 4 persone: da uno dei finestrini si è sparato una trano arma-

scorsi l'operaio aveva riserva- e il marito della titolare del to lavoro stasera. Crai. Secondo i carabinieri Secondo gli inquirenti la non c'è altra spiegazione. La scelta del Primerano sarebbe indagini comunque si sono dovuta a pura fatalità gli stese anche in Calabria per sparatori avevano forse solo trovare nel passato della vitintenzione di lanciare il loro tima ed accertare eventuali avvertimento perché dalla nessi collegamenti con la mastrada non potevano vedere fia'ndranghetista. all'interno e stabilire dove si trovassero i due imbianchini.

Gino Mazzoldi

2) The article reports a new bloody episode in the province of Milan regarding a shoot from the car and kill of a bartender as evidence of 'ndrangheta: «*A man was killed last night in a bar run by his wife by 2 revolvers that exploded from the edge of a BMW which immediately vanished. According to the carabinieri, the crime has no political motive even if the victim held the position of vice president of the combatants and veterans section of Lainate, a small town about twenty kilometers from Milan: it is in all probability a matter of revenge, although perhaps the the killers simply wanted to limit themselves to a warning and only by sheer fatality did the bullets hit the man. The victim is Salvatore Primerano, 52 years old, originally from Catanzaro, a worker in a factory in the area. [...] he never got involved in politics even though he had been appointed vice president of the Fighters and Veterans section of Lainate. This task and the fact that his wife was the owner of the Crai had created jealousy in the environment as more and more customers flocked to the place deserting the other bars in the area.[...]*»

Anno 110 - Numero 126 - Domenica 30 Maggio 1976

IL VOLTO INQUIETANTE DELLA CITTÀ "DIVENTATA UN'ALTRA,,

A Torino, mezzanotte di fuoco

Vendette di clan, prostituzione femminile e maschile, droga venduta davanti alle scuole come contrabbando: si moltiplica una trama miserabile e violenta

Torino. Caroselli della polizia nei pressi di Porta Nuova (Foto a La Stampa-s)

Pizza pulita

Caro gergo

Giovanni Arpino

Un libro che ha suscitato un acceso dibattito

Gaspare Barbiellini Amidei Bachisio Bandinu

IL RE È UN FETICCIO

(3) The article discusses Turin's new face at fiery midnight where there are episodes of clan vendettas, female and male prostitution, drugs selling: *[...]"Black Turin" regained nine-column headlines in the news pages, then the paragraphs diminished, the news became thin and cold, and everyday life resumed with its sad undertows. I have to condense in this article an overly nourished series of information on Turin which has "become different". It is explained to me: there is the prostitution racket, the drug racket, the third of the fruit and vegetable markets, mediated by Neapolitan experiences; here we are at the fourth, of extor-*

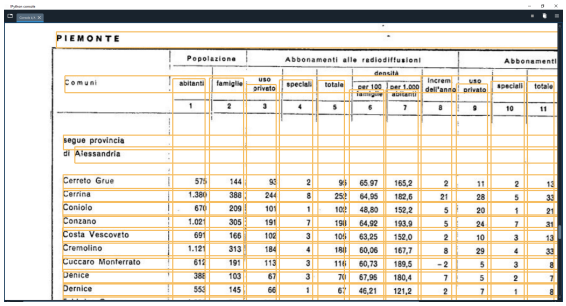
tion; here we are at the fifth, of the kidnappings; here we are at the sixth, of the building industry, where labour, concrete and piles of illicit money guarantee. They are forms of the mafia, of the Camorra, which followed the great immigrations of the 1950s and within a generation managed to proliferate and take root in favorable terrain.[...]

L'operazione della Guardia di finanza a Sanremo e Saint Vincent

CENTINAIA DI AGENTI ARMATI DI MITRA HANNO BLOCCATO I CLIENTI DEI CASINO'

4) The article reports on two police operations (in Aosta and Sanremo) in gambling houses. «*Sanremo. The city seems to be under siege. Checkpoints on the highway, at the railway station, on the outskirts. Interior Minister Scalfaro's offensive against the mafia and the laundering of "dirty" money inside the casino is shocking the coast.[...] "They are looking for three men - the rumors chased each other - who would have been found hiding on a boat or die, during the night they would have had time to avoid the encirclement and escape from Sanremo aboard a yacht". Who are they: mafiosi, money lenders, former elements linked to the "'ndrangheta" who would have laundered money from kidnappings at the roulette tables? For now, nothing is known about the official. The hypotheses overlap. The second blitz in the history of the Sanremo casino opens disturbing questions.[...]*»

B.1 TV tax scraping



PIEMONTE

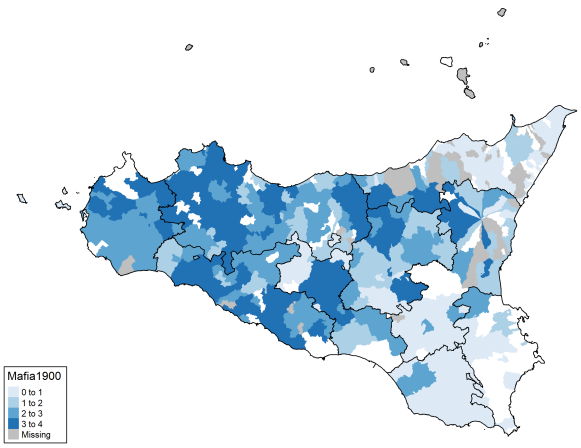
Comuni	Popolazione abitanti	Popolazione famiglie	Abbonamenti alle radiodiffusioni uso privato	speciali	totale	densità per 100 famiglie	densità per 1.000 abitanti	Incremento dell'anno	Abbonamenti uso privato	speciali	totale
	1	2	3	4	5	6	7	8	9	10	11
segue provincia di Alessandria											
Cerreto Grue	575	144	93	2	95	65,97	165,2	2	11	2	13
Cerrina	1.380	388	244	8	252	64,95	182,6	21	28	5	33
Coniolo	670	209	101	1	102	48,80	152,2	5	20	1	21
Conzano	1.021	305	191	7	198	64,92	193,9	5	24	7	31
Costa Vescovato	691	166	102	3	105	63,25	152,0	2	10	3	13
Cremolino	1.121	313	184	4	188	60,06	167,7	8	29	4	33
Cuccaro Monferrato	612	191	113	3	116	60,73	189,5	−2	5	3	8
Denice	388	103	67	3	70	67,96	180,4	7	5	2	7
Dernice	553	145	66	1	67	46,21	121,2	2	7	1	8

To digitize the yearly pdfs received from *RAI* containing municipality level information on the TV tax compliance rate, we deployed a Python script structured as follows. First, each page from a pdf, containing TV tax compliance rate, number of TVs and number of households at the municipality level in a given year, is transformed into an image. Then, each image gets its rotation fixed, as some pages were not scanned properly, and hence are not straight. Then, we exploit `layoutparser` (Shen et al., 2021) functionalities to create a grid that identifies the values of each variable of interest for a given municipality. A visual example in this grid is Figure **??**. Lastly, after having compiled a list of the municipality and a list of relevant variables in a page, we perform a loop that extract values, for a variable and a municipality, within each grid point. We have created a series of Python scripts to automatise the whole process, taking into account changes in the layout of the *RAI* pdfs overtime. We are planning to publish these series of scripts, along with the scraped TV tax compliance rate data, on GitHub.

Appendix C Historical Mafia in Sicily: Correlation Exercise

The measure of mafia presence for Sicily, at the municipality level, at the beginning of the XX century, comes from Cutrera (1900). This measure is a standard in the literature that studied the presence of organised crime in Sicily over the period (Buonanno, Durante, et al., 2015; De Feo and De Luca, 2017; Acemoglu et al., 2020). Specifically to Acemoglu et al. (2020), we draw on their adaptation of the measure of Cutrera (1900), that is a variable that ranges from 0 (no mafia presence), to 3 (great mafia presence).

Figure C.1: Mafia presence in 1900



This map shows the distribution of mafia presence based on the variable created by Acemoglu et al. (2020), based on Cutrera (1900).

Figure C.1 shows the distribution of mafia based on the variable created by Acemoglu et al. (2020), based on Cutrera (1900). It is possible to note how the highest concentration can be found in the North-West area of the region, where there is the city of Palermo.

C.1 Estimation Strategy and Results

To estimate the impact of the long-lasting presence of organised crime on current measures of social capital we estimate the following OLS regression:

$$Social\ Capital_i = \alpha + \beta Mafia1900_i + \gamma X'^{hist}_i + \theta_p + \epsilon_i, \tag{7}$$

where $Social\ Capital_i$ is the main outcome of interest, representing the nowadays specific social capital variable of focus in municipality i. $Mafia1900_i$ is the main variable of interest, that is a discrete measure of mafia presence over the Sicilian territory, for municipality i. X'^{hist}_i is a vector of historical control variables in municipality i. Provincial fixed effects θ_p and an idiosyncratic error ϵ_i conclude the specification.

In an attempt to move toward causality, we apply the framework implemented in Acemoglu et al. (2020) when inspecting medium-term and long-term outcomes. That is, we apply an instrumental variable strategy by instrumenting the measure of mafia activity with the relative rainfall in the spring of 1893. Namely, this amount of relative rainfall in the spring of 1893 resulted in a drought, that impacted crop production and has been shown to be correlated with

the rise of the peasant fasci[43]. Specifically, we estimate the following two-stage least squares (2SLS):

$$Mafia_i = \alpha + \beta_1 relative\,rainfall_i^{1893} + \gamma X'^{hist}_i + \theta_p + \epsilon_i, \tag{8}$$

$$Social\,Capital_i = \alpha + \beta \widehat{Mafia1900}_i + \gamma X'^{hist}_i + \theta_p + \epsilon_i, \tag{9}$$

where in Equation 8, the first-stage, we instrument the main variable of interest, $Mafia_i$, with the instrumental variable $relative\,rainfall_i^{1893}$, that is the amount of relative rain in the spring of 1893. We then use the cleansed by the instrument regressor of interest, and use it to estimate the second stage. As in Acemoglu et al. (2020), both in the first and second stages, we extend the vector of controls X'^{hist}_i to include further geographic variables and to include determinants of the presence of the mafia in 1900 and of the peasants fasci.

Table C.1: Mafia activity, number of voluntary associations and female workforce participation rate.

	N. of voluntary assoc.			*TV tax compliance rate*		
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A - OLS			
Mafia1900	-0.013**	-0.021***	-0.017**	-0.003	-0.014**	-0.016**
	(0.006)	(0.008)	(0.008)	(0.006)	(0.007)	(0.006)
N	266	266	266	266	266	266
			Panel B - 2SLS			
Mafia1900	-0.020	-0.107*	-0.105**	0.005	-0.215***	-0.177**
	(0.019)	(0.055)	(0.050)	(0.032)	(0.058)	(0.069)
N	238	238	238	238	238	238
FS F-statistic	24.844	8.082	24.117	24.844	8.082	24.117
Mean outcome	0.229	0.229	0.229	0.577	0.577	0.577
Province FE		✓	✓		✓	✓
Controls			✓			✓

Notes: Dependent variables: the number of voluntary associations p 100 inhabitants (1-3); the TV tax compliance measure. *Mafia1900* refers to the mafia presence and activity in 1900. Robust standard errors in parentheses for *Panel A*. District and weather station clustered standard errors for *Panel B*. * p<0.10, ** p<0.05, *** p<0.01. Controls include geographic characteristics for *Panel A*. Controls include further geographic characteristics and determinants of the presence of both fasci and mafia for *Panel B*

Table C.2: Mafia activity and the turnout to referendums and European elections.

	Euro. elections turnout			*Referendums turnout*		
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A - OLS			
Mafia1900	-0.003	0.002	0.000	-0.019**	-0.014*	-0.022**
	(0.004)	(0.005)	(0.005)	(0.007)	(0.008)	(0.010)
N	266	266	266	266	266	266
			Panel B - 2SLS			
Mafia1900	-0.011	0.012	0.007	-0.042	-0.144	-0.107*
	(0.015)	(0.053)	(0.029)	(0.031)	(0.107)	(0.056)
N	238	238	238	238	238	238
FS F-statistic	24.844	8.082	24.117	24.844	8.082	24.117
Mean outcome	0.637	0.637	0.637	0.679	0.679	0.679
Province FE		✓	✓		✓	✓
Controls			✓			✓

Notes: Dependent variables: the average turnout to European elections from 1974 to 2014 (1-3); the average turnout to referendums. *Mafia1900* refers to the mafia presence and activity in 1900. Robust standard errors in parentheses for *Panel A*. District and weather station clustered standard errors for *Panel B*. * p<0.10, ** p<0.05, *** p<0.01. Controls include geographic characteristics for *Panel A*. Controls include further geographic characteristics and determinants of the presence of both fasci and mafia for *Panel B*

[43] For further details, we refer to (Acemoglu et al., 2020).

Tables C.1 and C.2 show the results. For each couple of outcomes inspected, Panel A shows the coefficients related to the OLS regression, while Panel B shows the coefficients of the 2SLS estimation. When we look at the proxies for civic engagement and rule compliance (number of voluntary associations and tv tax compliance, respectively) in Table C.1, both OLS and 2SLS estimates reveal coefficients with a pattern that are persistently negative and statistically significant. Continuing, Table C.2 shows the results on the average turnout at European elections and at referendums, respectively. It still shows a persistent negative effects, despite is it less significant compared with the previous proxies. Overall, the results indicate a negative correlation between the presence and intensity of the Mafia in 1900. Moreover, some of these correlations are still valid when estimated via an instrumental variable strategy. These pieces of evidence are in line with the hypothesis that organised crime, via its activities that cause the creation of a distorting and corrupted environment, depresses social capital.

Appendix D Migration shift-share and bombing days

A potential concern is that, even if it was as good as random, the interaction between Marshall and Southern migration may hide a potential bias that could invalidate the estimates associated to this identification. Firstly, flows of immigrants tend to be geographically clustered and successive waves are likely to settle where original settlers established their residence, generating a source of endogeneity. Therefore, we follow the most recent literature on shift-share instruments related to migration (Card, 2001; Tabellini, 2020), and construct the following Bartik instrument:

$$MSS_{p,t} = \frac{1}{Pop_{p,t}} * \sum_{o=1}^{O} \sigma_{o,p,1955} * \Delta Mig_{o,t}^{-Mig_{o,p,t}} \tag{10}$$

where $\sigma_{o,p,1955}$ is the share of initial settlers in 1955 of origin o, to province p, out of all the migrants from the South to province p. $\Delta Mig_{o,t}^{-Mig_{o,p,t}}$ is the national change in migrants from province o between t and *t-1*, minus the contribution of province p. $Pop_{p,t}$ is the population of province p at decade t. We allow for the contemporaneous population as a scaling factor, but we also show estimates if we use it at baseline (1950).

Secondly, despite the fact that it seems unlikely that local lobbying and corruption had any impact on the distribution of Marshall funds, we follow Giorcelli and Bianchi (2021) framework and we instrument the allocation of Marshall funds with the total bombing days a municipality was exposed to between 1943 and 1945[44]. Hence, we estimate a 2SLS system of equations in the following reduced form fashion.[45]

$$M_{i,t} = \alpha + \delta_1 MSS_{p,t-1} + \delta_2 MSS_{p,t-1} * B_{i,1943-45} + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{14}$$

$$SC_{i,t} = \alpha + \beta \widehat{M_{i,t}} + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{15}$$

$SC_{i,t}$ is the *log* of the measure of social capital in city i at time t. $M_{i,t}$ is the $log + 1$ of the number of news in city i at decade *t-1* related to the mafia. $MSS_{p,t-1}$ is the migration shift-share instrument relative to province p at decade *t-1*. $B_{i,1945-43}$ is the total bombing days that city i suffered between 1943 and 1945. $\mathbf{X'}_{i,1950} * \tau_t$ is a vector of controls in city i in 1950 multiplied by decade fixed effects. γ_i, τ_t are city and decade fixed effects. We additionally include either region*decade fixed effects or region linear trends.

Figure D.1 *panel (a)* shows the share of migrants from the South of Italy to each province of the Centre-North, averaged over the 1950-1990 period, *panel (b)* shows the log of the Marshall funds a municipality received between 1948 and 1950, and *panel (c)* shows the maximum of bombing days a municipality experienced during the II World War.

Table D.1 shows the results produced with the system of equations 14 and 15. Consistently with the previous specification, 2SLS estimates show a consistently negative and statistically significant pattern relating mafia presence and the TV tax compliance rate. The coefficients range between -1.025 and -0.348. Taking as a reference the coefficient in column (2), a 10%

[44] Bombing activities during the Italian Campaign are most likely exogenous, resulting from clashes between the German and Allied soldiers on Italian land (Giorcelli and Bianchi, 2021)

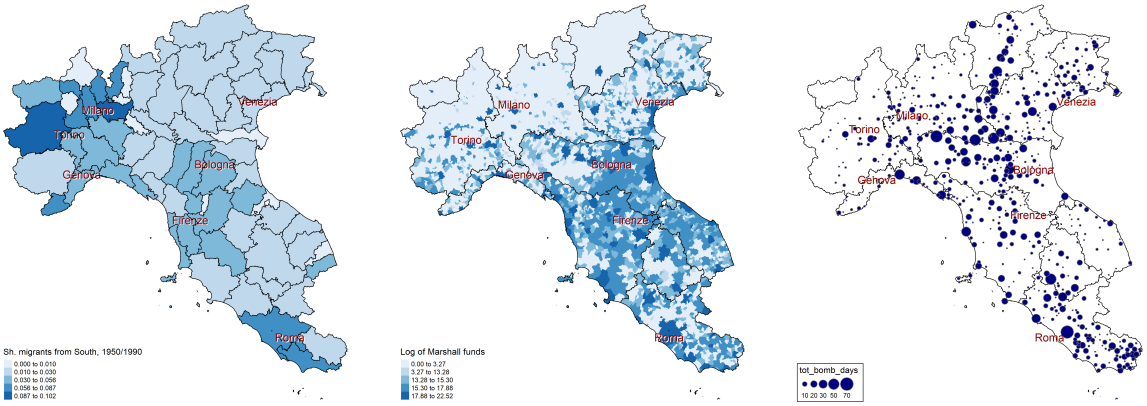
[45] The classic 2SLS system of equations is made of two first-stages and one second stage, namely:

$$Mig_{p,t-1} = \alpha + \delta_1 MSS_{p,t-1} + \delta_2 MSS_{p,t-1} * B_{i,1943-45} + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{11}$$

$$Mig_{p,t-1} * Marsh_{i,1950} = \alpha + \delta_1 MSS_{p,t-1} + \delta_2 MSS_{p,t-1} * B_{i,1943-45} + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{12}$$

$$M_{i,t} = \alpha + \beta_1 \widehat{Mig_{p,t-1}} + \beta_2 \widehat{Mig_{p,t-1} * Marsh_{i,1950}} + \psi \mathbf{X'}_{i,1950} * \tau_t + \gamma_i + \tau_t + \epsilon_{i,t} \tag{13}$$

Figure D.1: Maps relative to South to Centre-North migration, Marshall funds and bombing days distribution.



(a) Migration from South, avg. 1950/90. (b) Log of Marshall funds. (c) Total bombing days, 1943-45.

increase in the number of news related to organise crime implies a 3.48% decrease in the TV tax compliance rate, a magnitude very close to the forced resettlement specification. The KP and CD F statistic of the first stage of columns (5) to (8) report values that range from 20.057 to 12.693 and from 62.924 to 33.988 respectively, indicating a strong first-stage relationship. Our estimates survive this robustness check, which is reassuring. In Table D.2, when we consider the shift-share scaled by the baseline population(1950), it is possible to note that the estimates virtually remain unchanged.

Table D.1: Mafia presence and TV tax compliance rate, migration shift-share and bombing days.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.049***	-0.020***	-0.014***	-0.020***	-1.025***	-0.347***	-0.525***	-0.407***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.131)	(0.100)	(0.124)	(0.100)
N	38381	38381	38381	38381	32898	32898	32898	32898
KP F-Stat					20.057	13.800	12.693	13.651
CD F-Stat					62.924	39.008	33.988	40.129
Mean outcome	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Region * Year FE			✓				✓	
Region linear trends				✓				✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of families. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia at t.The instrumental variables, $MSS_{p,t-1}$ and $MSS_{p,t-1}{*}B_{i,1943\text{-}45}$, are the shift-share migration instruments values of province p at time t-1 and its interaction with the total number of days with a bombing that city i suffered during WWII, respectively. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, region*year fixed effects, and region linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

Table D.2: Mafia presence and TV tax compliance rate, migration shift-share and bombing days, 1950 population as scaling factor.

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TV tax compliance rate							
$Mafia_{i,t}$	-0.049***	-0.020***	-0.014***	-0.020***	-2.154***	-0.542***	-0.891***	-0.670***
	(0.005)	(0.004)	(0.004)	(0.004)	(0.354)	(0.185)	(0.243)	(0.181)
N	38381	38381	38381	38381	32898	32898	32898	32898
KP F-Stat					15.710	13.339	11.405	13.263
CD F-Stat					18.001	15.037	12.295	16.296
Mean outcome	0.553	0.553	0.553	0.553	0.553	0.553	0.553	0.553
Year and City FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls		✓	✓	✓		✓	✓	✓
Region * Year FE			✓				✓	
Region linear trends				✓				✓

Notes: Dependent variable: the log of the ratio of the number of TVs over the number of families. The endogenous variable, $Mafia_{i,t}$, refers to the log + 1 of the number of news related to the mafia at t.The instrumental variables, $MSS_{p,t-1}$ and $MSS_{p,t-1}{*}B_{i,1943\text{-}45}$, are the shift-share migration instruments values of province p at time t-1 and its interaction with the total number of days with a bombing that city i suffered during WWII, respectively. Columns (1), (2), (3) and (4) show the OLS estimates. Columns (5), (6), (7) and (8) show the 2SLS estimates. Columns (5), (6), (7) and (8) report the Kleibergen-Paap and Cragg-Donald F statistic for weak identification. Controls include city population (1936, 1950), population density (1950), illiterate index (1950), owned house index (1950), all interacted with year dummies. Depending on the specification, we include city fixed effects, year fixed effects, region*year fixed effects, and region linear trends. Municipality clustered standard errors in parentheses. * p<0.10, ** p<0.05, *** p<0.01.