ONLINE APPENDIX - For Online Publication Only

# ALL IS NOT LOST:
# Organized Crime and Social Capital Formation

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This Online Appendix accompanies the paper "All is not lost: Organized Crime and Social Capital Formation". Section A presents additional material complementing the data section in the main text and all validation exercises. Section B presents all baseline robustness exercises. Section C presents additional results related to the mechanisms section.

## Contents

# A Data - Additional data

## A.1 Sources

Table A1: Data Sources

| **Variable** | **Source** |
|---|---|
| 5‰ data | Italian Revenue Agency, List of beneficiaries of contribution 5‰ |
| List of organizations eligible for 5‰ | Italian Revenue Agency, List of accredited non-profit organizations for the 5‰ |
| Dissolution because of Mafia infiltration | Official Gazette of the Italian Republic and *Openpolis.it* |
| Taxable base and number of taxpayers in the municipality | Italian Ministry of Economy and Finance - Department of Treasury |
| Resident population in the municipality | Italian National Institute of Statistics - ISTAT |
| "Aspects of Daily Life" Survey | Italian National Institute of Statistics - ISTAT |
| List of Italian municipalities (as in 2009) | Italian National Institute of Statistics - ISTAT |

## A.2 Data and descriptive statistics

This section reports descriptive statistics for the main outcome variables. Table A2 shows the number of observations, mean and standard deviation of our main outcome variables, for the sample of observations in baseline specifications. Table A3 compares ever dissolved and never dissolved municipalities across characteristics observed in the pre-sample period (i.e., measured in 2006).

Table A2: Descriptive Statistics

| | Observations | Mean | SD |
|---|---|---|---|
| *Tax-based Social Capital* | 103,506 | 0.078 | 0.164 |
| *Tax-based Trust in Local Institutions* | 103,506 | 0.022 | 0.026 |
| *Voluntary Associations (over 1,000 taxpayers)* | 103,506 | 0.098 | 0.126 |
| *Taxpayers Allocating 5‰ (Share)* | 103,506 | 0.100 | 0.165 |

NOTE: The table reports descriptive statistics for the main outcome variables, calculated for the samples used in the baseline regressions.

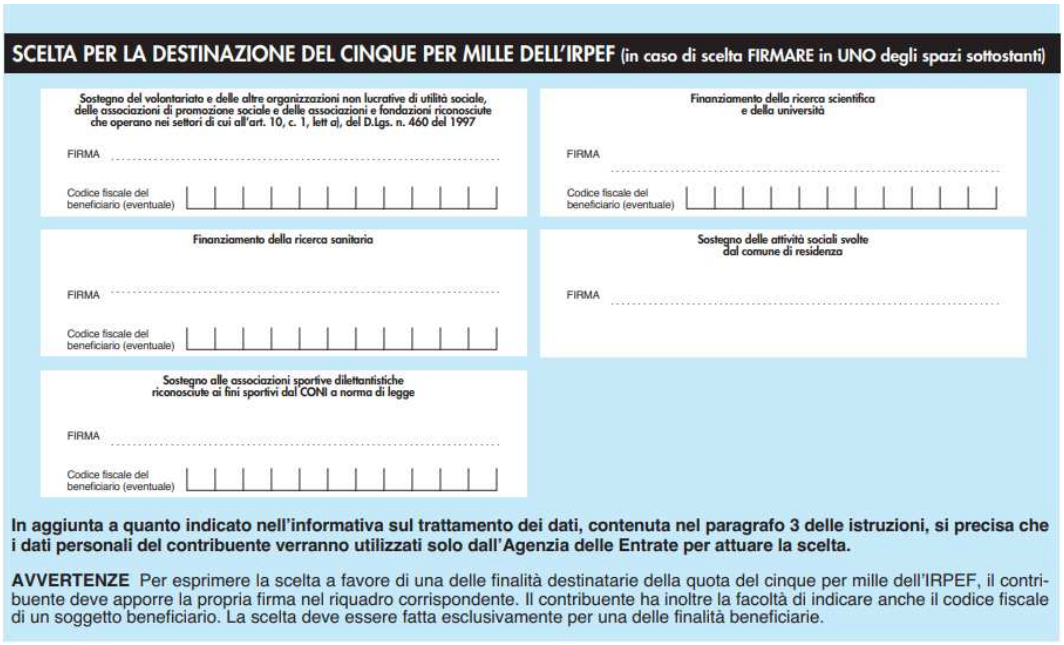
Table A3: Balancing Table

| Variable | (1) Not dissolved | (2) Dissolved | (3) Difference |
|---|---|---|---|
| *(log) Population [Pre-period]* | 7.847 | 8.966 | 1.119 |
| | (1.282) | (1.136) | (0.114) |
| *(log) Taxpayers [Pre-period]* | 7.470 | 8.464 | 0.994 |
| | (1.269) | (1.107) | (0.113) |
| *(log) Taxable personal income per capita [Pre-period]* | 9.070 | 8.689 | -0.381 |
| | (0.394) | (0.364) | (0.035) |
| *(log) Total taxable income [Pre-period]* | 16.541 | 17.145 | 0.603 |
| | (1.441) | (1.310) | (0.129) |
| *Income inequality [Pre-period]* | 0.022 | 0.009 | -0.013 |
| | (0.029) | (0.012) | (0.003) |
| *Tax-based Social Capital [Pre-period]* | 0.058 | 0.049 | -0.008 |
| | (0.411) | (0.099) | (0.036) |
| *Tax-based Trust in Local Institutions [Pre-period]* | 0.073 | 0.024 | -0.049 |
| | (0.158) | (0.045) | (0.014) |
| *Voluntary Associations (over 1,000 taxpayers) [Pre-period]* | 0.071 | 0.049 | -0.022 |
| | (0.329) | (0.069) | (0.029) |
| *Taxpayers Allocating 5‰(Share) [Pre-period]* | 0.131 | 0.074 | -0.057 |
| | (0.536) | (0.111) | (0.048) |
| Observations | 7,835 | 127 | 7,962 |

NOTE: The table reports mean values and standard errors (in parenthesis) of the main outcome variables and of municipalities' economic and demographic variables measured in 2006. Column (1) reports the values for not dissolved municipalities, Column (2) for dissolved municipalities, and Column (3) reports the difference between the values in Columns (1) and (2).

## A.3 5‰ - Background information

Figure A1: Module for 5‰ from tax-form [2009]



**SCELTA PER LA DESTINAZIONE DEL CINQUE PER MILLE DELL'IRPEF** (in caso di scelta FIRMARE in UNO degli spazi sottostanti)

Sostegno del volontariato e delle altre organizzazioni non lucrative di utilità sociale, delle associazioni di promozione sociale e delle associazioni e fondazioni riconosciute che operano nei settori di cui all'art. 10, c. 1, lett a), del D.Lgs. n. 460 del 1997

FIRMA .....

Codice fiscale del beneficiario (eventuale)

Finanziamento della ricerca scientifica e della università

FIRMA .....

Codice fiscale del beneficiario (eventuale)

Finanziamento della ricerca sanitaria

FIRMA .....

Codice fiscale del beneficiario (eventuale)

Sostegno delle attività sociali svolte dal comune di residenza

FIRMA .....

Sostegno alle associazioni sportive dilettantistiche riconosciute ai fini sportivi dal CONI a norma di legge

FIRMA .....

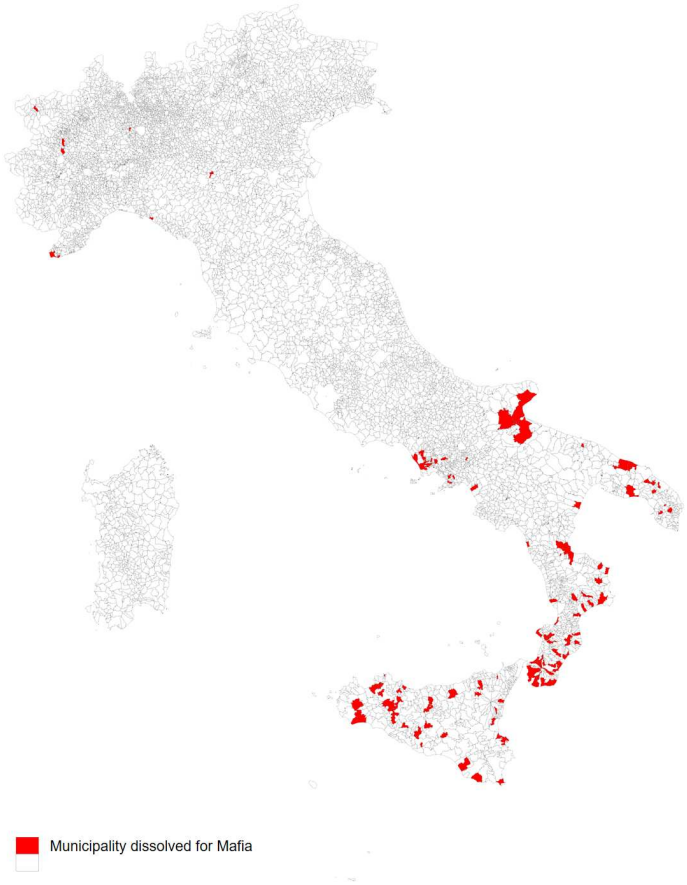
Codice fiscale del beneficiario (eventuale)

**In aggiunta a quanto indicato nell'informativa sul trattamento dei dati, contenuta nel paragrafo 3 delle istruzioni, si precisa che i dati personali del contribuente verranno utilizzati solo dall'Agenzia delle Entrate per attuare la scelta.**

**AVVERTENZE** Per esprimere la scelta a favore di una delle finalità destinatarie della quota del cinque per mille dell'IRPEF, il contribuente deve apporre la propria firma nel riquadro corrispondente. Il contribuente ha inoltre la facoltà di indicare anche il codice fiscale di un soggetto beneficiario. La scelta deve essere fatta esclusivamente per una delle finalità beneficiarie.

## A.4 Distribution of municipalities dissolved for Mafia

Figure A2: Municipalities dissolved for Mafia




*Note:* The map displays the municipalities dissolved because of Mafia infiltrations (in red).

## A.5 Survey data

### A.5.1 Validation of 5‰ as measure of social capital

In this section, we compare our tax-based measure with other indicators of social capital commonly used in the literature.

We retrieve indicators identified by Guiso et al. (2016) such as: i) the number of non-profit organizations per capita, ii) the presence of an organ donation organization, iii) the frequency of cheating in a national exam taken by children, and iv) cities that were awarded a medal of honor for heroism during World War II. We also use election turnout-related variables for i) referendums, ii) national elections, and iii) municipal elections. Finally, we follow Durante et al. (2023) to retrieve various social capital indicators from the survey *"Aspects of Daily Life"* (ADL) conducted by the Italian National Institute of Statistics (ISTAT). This survey is part of an integrated system of social surveys (i.e., the Multipurpose Survey on Families) and uses a random list of names drawn up for census surveys, according to a sampling strategy aimed at constructing a statistically representative sample of the population residing in Italy. From 1993 to 2003 the survey was conducted annually, with data collected during the month of November. Starting from 2005, it was run every year in February on a sample of approximately 20,000 households and 50,000 individuals distributed in around 800 Italian municipalities of varying demographic size (source: ISTAT). The provision of the data requested by ISTAT is mandatory, however in case of non-response, no sanction is foreseen.[32]

From the ADL, we derive information on newspapers readership. Additionally, we follow Durante et al. (2023), who use the same data to provide guidance on the measurement and use of social capital indicators in empirical work. In particular, we apply a principal component analysis (PCA) to the 20 survey questions and construct four measures corresponding to four distinct components of social capital – i) social participation, ii) political participation, iii) trust in others, and iv) trust in institutions.

Our data is slightly different from the data used by Durante et al. (2023) along two dimensions. Firstly, our sample covers more recent years (from 2009 to 2019) (overlapping with 5‰ data), while their sample covers the years between 2000 and 2015. Secondly, in our version of ADL data, we have only 20 of the 24 survey questions about participation in and support for associations that Durante et al. (2023) use to compute their social capital measures. We don't have the four variables measuring whether individuals attended any meetings of i) voluntary associations, ii) environmental or civil right associations, iii) cultural or recreational associations, iv) party and trade unions.

We validate our tax-based measure of social capital using three different exercises. First, we show its correlation with each of the municipal-level social capital measures mentioned above. Given that many social capital indicators remain stable year-over-year, we first report pairwise correlations among all social capital-related variables using municipal-level averages. The results in Figure A3 indicate that our tax-based social capital measure is positively and significantly correlated with most social capital proxies.

Second, we replicate the analysis by individually examining each variable observed at the municipality-year level from the ADL survey utilized by Durante et al. (2023) in their PCA. Corresponding results are presented in Figure A4.

[32] While ADL survey data are publicly available, to match each each individual to her municipality of residence we obtained access to confidential data from ISTAT We obtained access to confidential data on the respondents' municipality of residence by signing a Memorandum of Understanding (ACP/43/2020) with the Italian National Institute of Statistics (ISTAT).

Finally, we formally regress the survey-based measures of social participation on our tax-based social capital measure. Results are presented in Table A4 and suggest a strong and positive association between survey-based and tax-based measures of social capital.[33]

Overall, all findings presented in this section provide support to our method of measuring social capital using a tax-based outcome.

[33] To simplify the interpretation of the coefficients, we standardize both dependent and independent variables.

Figure A3: Pairwise Correlations of Tax-based Social Capital with Other Existing Measures - Averages at the municipality level

| | Tax-based Social Capital | Presence of Organ Donation Organization [GSZ] | Medal of Honor in WWII [GSZ] | Number of Non-profit Organizations per capita [GSZ] | Cheating in Mathematics [GSZ] | Turnout Referendum | Turnout National Elections | Turnout Municipal Elections | Newspaper Readership [ADL] | Social Participation [DMMS] | Political Participation [DMMS] | General Trust [DMMS] | Institutional Trust [DMMS] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax-based Social Capital | | 0.109 *** [8,058] | 0.054 *** [5,515] | 0.009 [8,042] | -0.036 ** [3,273] | 0.033 *** [7,127] | 0.047 *** [7,049] | 0.004 [7,086] | 0.061 *** [3,637] | 0.076 *** [3,637] | -0.025 + [3,637] | 0.053 *** [3,464] | 0.009 [3,271] |
| Presence of Organ Donation Organization [GSZ] | 0.109 *** [8,058] | | 0.247 *** [5,515] | -0.011 [8,042] | -0.052 *** [3,273] | 0.062 *** [7,093] | 0.015 [7,017] | -0.081 *** [7,052] | 0.023 + [3,615] | -0.059 *** [3,615] | -0.016 [3,615] | -0.060 *** [3,443] | 0.009 [3,251] |
| Medal of Honor in WWII [GSZ] | 0.054 *** [5,515] | 0.247 *** [5,515] | | 0.003 [5,503] | -0.020 [1,914] | 0.030 ** [4,550] | -0.018 [4,477] | -0.059 *** [4,550] | 0.040 * [2,356] | -0.006 [2,356] | 0.028 + [2,356] | -0.009 [2,249] | 0.022 [2,129] |
| Number of Non-profit Organizations per capita [GSZ] | 0.009 [8,042] | -0.011 [8,042] | 0.003 [5,503] | | -0.006 [3,271] | 0.029 ** [7,081] | -0.020 + [7,005] | -0.007 [7,040] | 0.183 *** [3,611] | 0.190 *** [3,611] | 0.008 [3,611] | 0.376 *** [3,439] | 0.144 *** [3,247] |
| Cheating in Mathematics [GSZ] | -0.036 ** [3,273] | -0.052 *** [3,273] | -0.020 [1,914] | -0.006 [3,271] | | -0.048 *** [2,958] | -0.052 *** [2,943] | -0.032 * [2,921] | -0.034 + [2,260] | 0.009 [2,260] | 0.009 [2,260] | 0.012 [2,183] | 0.011 [2,088] |
| Turnout Referendum | 0.033 *** [7,127] | 0.062 *** [7,093] | 0.030 ** [4,550] | 0.029 ** [7,081] | -0.048 *** [2,958] | | 0.633 *** [7,057] | 0.178 *** [7,095] | 0.202 *** [3,058] | 0.269 *** [3,058] | -0.023 + [3,058] | 0.201 *** [2,916] | 0.102 *** [2,752] |
| Turnout National Elections | 0.047 *** [7,049] | 0.015 [7,017] | -0.018 [4,477] | -0.020 + [7,005] | -0.052 *** [2,943] | 0.633 *** [7,057] | | 0.403 *** [7,016] | 0.286 *** [3,047] | 0.372 *** [3,047] | -0.047 *** [3,047] | 0.298 *** [2,907] | 0.110 *** [2,745] |
| Turnout Municipal Elections | 0.004 [7,086] | -0.081 *** [7,052] | -0.059 *** [4,550] | -0.007 [7,040] | -0.032 * [2,921] | 0.178 *** [7,095] | 0.403 *** [7,016] | | 0.118 *** [3,031] | 0.087 *** [3,031] | -0.041 ** [3,031] | 0.074 *** [2,889] | 0.003 [2,726] |
| Newspaper Readership [ADL] | 0.061 *** [3,637] | 0.023 + [3,615] | 0.040 * [2,356] | 0.183 *** [3,611] | -0.034 + [2,260] | 0.202 *** [3,058] | 0.286 *** [3,047] | 0.118 *** [3,031] | | 0.496 *** [3,667] | 0.130 *** [3,667] | 0.402 *** [3,494] | 0.113 *** [3,300] |
| Social Participation [DMMS] | 0.076 *** [3,637] | -0.059 *** [3,615] | -0.006 [2,356] | 0.190 *** [3,611] | 0.009 [2,260] | 0.269 *** [3,058] | 0.372 *** [3,047] | 0.087 *** [3,031] | 0.496 *** [3,667] | | 0.287 *** [3,667] | 0.500 *** [3,494] | 0.140 *** [3,300] |
| Political Participation [DMMS] | -0.025 + [3,637] | -0.016 [3,615] | 0.028 + [2,356] | 0.008 [3,611] | 0.009 [2,260] | -0.023 + [3,058] | -0.047 *** [3,047] | -0.041 ** [3,031] | 0.130 *** [3,667] | 0.287 *** [3,667] | | 0.025 + [3,494] | 0.015 [3,300] |
| General Trust [DMMS] | 0.053 *** [3,464] | -0.060 *** [3,443] | -0.009 [2,249] | 0.376 *** [3,439] | 0.012 [2,183] | 0.201 *** [2,916] | 0.298 *** [2,907] | 0.074 *** [2,889] | 0.402 *** [3,494] | 0.500 *** [3,494] | 0.025 + [3,494] | | 0.313 *** [3,300] |
| Institutional Trust [DMMS] | 0.009 [3,271] | 0.009 [3,251] | 0.022 [2,129] | 0.144 *** [3,247] | 0.011 [2,088] | 0.102 *** [2,752] | 0.110 *** [2,745] | 0.003 [2,726] | 0.113 *** [3,300] | 0.140 *** [3,300] | 0.015 [3,300] | 0.313 *** [3,300] | |

*Note:* This table shows pairwise correlations of the Tax-based Social Capital measure and several other social capital measures from different sources. Variables labelled [GSZ] are civic capital measures as in Guiso et al. (2016). Variables labelled [ADL] are survey-based measures of social capital collected in the survey *"Aspects of Daily Life"*. Variables labelled [DMMS] are obtained, following Durante et al. (2023), by applying a principal component analysis (PCA) to 20 ADL survey questions to construct four measures corresponding to four distinct components of social capital – i) social participation, ii) political participation, iii) trust in others, and iv) trust in institutions. + $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Figure A4: Pairwise correlations of Tax-based Social Capital with Durante et al. (2023) measures - Municipality-year level

| | Tax-based Social Capital | Gives money to voluntary association [SP1] | Non-paid activity for voluntary association [SP2] | Non-paid activity for non-voluntary association [SP3] | Attend political rally [PP1] | Participate in demonstration [PP2] | Listen to political debate [PP3] | Gives money to political party [PP4] | Non-paid activity for political party [PP5] | Non-paid activity for trade union [PP6] | Can trust most people [GT1] | Neighbor will give back wallet [GT2] | Stranger will give back wallet [GT3] | Trust in Italian Parliament [IT1] | Trust in the EU Parliament [IT2] | Trust in Regional Government [IT3] | Trust in Provincial Government [IT4] | Trust in Municipal Government [IT5] | Trust in Political Parties [IT6] | Trust in the Judiciary System [IT7] | Trust in the Police [IT8] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax-based Social Capital | | 0.079 (0.000) | 0.070 (0.000) | 0.008 (0.444) | -0.058 (0.000) | -0.023 (0.029) | 0.020 (0.059) | -0.009 (0.404) | -0.030 (0.004) | 0.010 (0.361) | 0.076 (0.000) | 0.023 (0.038) | 0.068 (0.000) | 0.034 (0.004) | 0.027 (0.020) | 0.055 (0.000) | 0.044 (0.000) | -0.064 (0.000) | 0.010 (0.370) | 0.025 (0.030) | 0.058 (0.000) |
| Gives money to voluntary association [SP1] | 0.079 (0.000) | | 0.593 (0.000) | 0.452 (0.000) | 0.102 (0.000) | 0.072 (0.000) | 0.346 (0.000) | 0.331 (0.000) | 0.157 (0.000) | 0.190 (0.000) | 0.234 (0.000) | 0.380 (0.000) | 0.305 (0.000) | -0.097 (0.000) | 0.027 (0.019) | 0.165 (0.000) | 0.217 (0.000) | 0.247 (0.000) | -0.028 (0.016) | -0.079 (0.000) | 0.053 (0.000) |
| Non-paid activity for voluntary association [SP2] | 0.070 (0.000) | 0.593 (0.000) | | 0.495 (0.000) | 0.078 (0.000) | 0.083 (0.000) | 0.196 (0.000) | 0.231 (0.000) | 0.147 (0.000) | 0.137 (0.000) | 0.236 (0.000) | 0.346 (0.000) | 0.304 (0.000) | -0.070 (0.000) | 0.014 (0.218) | 0.182 (0.000) | 0.233 (0.000) | 0.279 (0.000) | -0.010 (0.394) | -0.084 (0.000) | 0.037 (0.001) |
| Non-paid activity for non-voluntary association [SP3] | 0.008 (0.444) | 0.452 (0.000) | 0.495 (0.000) | | 0.235 (0.000) | 0.070 (0.000) | 0.216 (0.000) | 0.339 (0.000) | 0.204 (0.000) | 0.172 (0.000) | 0.191 (0.000) | 0.252 (0.000) | 0.227 (0.000) | -0.054 (0.000) | 0.048 (0.000) | 0.107 (0.000) | 0.173 (0.000) | 0.176 (0.000) | 0.077 (0.000) | -0.012 (0.284) | -0.040 (0.000) |
| Attend political rally [PP1] | -0.058 (0.000) | 0.102 (0.000) | 0.078 (0.000) | 0.235 (0.000) | | 0.331 (0.000) | 0.383 (0.000) | 0.306 (0.000) | 0.302 (0.000) | 0.183 (0.000) | 0.015 (0.184) | -0.016 (0.140) | -0.059 (0.000) | 0.007 (0.575) | 0.040 (0.001) | -0.065 (0.000) | -0.042 (0.001) | -0.020 (0.109) | 0.083 (0.000) | 0.068 (0.000) | -0.080 (0.000) |
| Participate in demonstration [PP2] | -0.023 (0.029) | 0.072 (0.000) | 0.083 (0.000) | 0.070 (0.000) | 0.331 (0.000) | | 0.318 (0.000) | 0.162 (0.000) | 0.229 (0.000) | 0.184 (0.000) | 0.018 (0.099) | -0.052 (0.000) | -0.063 (0.000) | 0.018 (0.113) | 0.032 (0.006) | -0.056 (0.000) | -0.067 (0.000) | -0.064 (0.000) | 0.002 (0.838) | 0.077 (0.000) | -0.041 (0.000) |
| Listen to political debate [PP3] | 0.020 (0.059) | 0.346 (0.000) | 0.196 (0.000) | 0.216 (0.000) | 0.383 (0.000) | 0.318 (0.000) | | 0.284 (0.000) | 0.234 (0.000) | 0.169 (0.000) | 0.061 (0.000) | 0.103 (0.000) | 0.031 (0.005) | -0.078 (0.000) | 0.027 (0.021) | -0.045 (0.000) | -0.043 (0.000) | -0.017 (0.172) | -0.069 (0.000) | 0.010 (0.402) | 0.035 (0.002) |
| Gives money to political party [PP4] | -0.009 (0.404) | 0.331 (0.000) | 0.231 (0.000) | 0.339 (0.000) | 0.306 (0.000) | 0.162 (0.000) | 0.284 (0.000) | | 0.517 (0.000) | 0.220 (0.000) | 0.158 (0.000) | 0.133 (0.000) | 0.109 (0.000) | -0.009 (0.426) | 0.075 (0.000) | 0.081 (0.000) | 0.112 (0.000) | 0.084 (0.000) | 0.107 (0.000) | 0.021 (0.067) | -0.046 (0.000) |
| Non-paid activity for political party [PP5] | -0.030 (0.004) | 0.157 (0.000) | 0.147 (0.000) | 0.204 (0.000) | 0.302 (0.000) | 0.229 (0.000) | 0.234 (0.000) | 0.517 (0.000) | | 0.294 (0.000) | 0.043 (0.000) | 0.029 (0.008) | 0.022 (0.047) | -0.001 (0.914) | 0.029 (0.011) | 0.011 (0.357) | 0.016 (0.190) | 0.009 (0.474) | 0.056 (0.000) | 0.004 (0.725) | -0.043 (0.000) |
| Non-paid activity for trade union [PP6] | 0.010 (0.361) | 0.190 (0.000) | 0.137 (0.000) | 0.172 (0.000) | 0.183 (0.000) | 0.184 (0.000) | 0.169 (0.000) | 0.220 (0.000) | 0.294 (0.000) | | 0.033 (0.002) | 0.033 (0.003) | 0.084 (0.000) | 0.009 (0.446) | 0.034 (0.003) | 0.022 (0.076) | 0.028 (0.023) | -0.002 (0.867) | 0.022 (0.056) | 0.002 (0.857) | -0.026 (0.028) |
| Can trust most people [GT1] | 0.076 (0.000) | 0.234 (0.000) | 0.236 (0.000) | 0.191 (0.000) | 0.015 (0.184) | 0.018 (0.099) | 0.061 (0.000) | 0.158 (0.000) | 0.043 (0.000) | 0.033 (0.002) | | 0.352 (0.000) | 0.411 (0.000) | 0.212 (0.000) | 0.259 (0.000) | 0.313 (0.000) | 0.324 (0.000) | 0.248 (0.000) | 0.253 (0.000) | 0.210 (0.000) | 0.131 (0.000) |
| Neighbor will give back wallet [GT2] | 0.023 (0.038) | 0.380 (0.000) | 0.346 (0.000) | 0.252 (0.000) | -0.016 (0.140) | -0.052 (0.000) | 0.103 (0.000) | 0.133 (0.000) | 0.029 (0.008) | 0.033 (0.003) | 0.352 (0.000) | | 0.456 (0.000) | 0.050 (0.000) | 0.113 (0.000) | 0.250 (0.000) | 0.291 (0.000) | 0.370 (0.000) | 0.091 (0.000) | 0.033 (0.004) | 0.192 (0.000) |
| Stranger will give back wallet [GT3] | 0.068 (0.000) | 0.305 (0.000) | 0.304 (0.000) | 0.227 (0.000) | -0.059 (0.000) | -0.063 (0.000) | 0.031 (0.005) | 0.109 (0.000) | 0.022 (0.047) | 0.084 (0.000) | 0.411 (0.000) | 0.456 (0.000) | | 0.135 (0.000) | 0.164 (0.000) | 0.297 (0.000) | 0.313 (0.000) | 0.254 (0.000) | 0.176 (0.000) | 0.051 (0.000) | 0.084 (0.000) |
| Trust in Italian Parliament [IT1] | 0.034 (0.004) | -0.097 (0.000) | -0.070 (0.000) | -0.054 (0.000) | 0.007 (0.575) | 0.018 (0.113) | -0.078 (0.000) | -0.009 (0.426) | -0.001 (0.914) | 0.009 (0.446) | 0.212 (0.000) | 0.050 (0.000) | 0.135 (0.000) | | 0.856 (0.000) | 0.739 (0.000) | 0.673 (0.000) | 0.390 (0.000) | 0.813 (0.000) | 0.679 (0.000) | 0.426 (0.000) |
| Trust in the EU Parliament [IT2] | 0.027 (0.020) | 0.027 (0.019) | 0.014 (0.218) | 0.048 (0.000) | 0.040 (0.001) | 0.032 (0.006) | 0.027 (0.021) | 0.075 (0.000) | 0.029 (0.011) | 0.034 (0.003) | 0.259 (0.000) | 0.113 (0.000) | 0.164 (0.000) | 0.856 (0.000) | | 0.764 (0.000) | 0.734 (0.000) | 0.439 (0.000) | 0.754 (0.000) | 0.673 (0.000) | 0.413 (0.000) |
| Trust in Regional Government [IT3] | 0.055 (0.000) | 0.165 (0.000) | 0.182 (0.000) | 0.107 (0.000) | -0.065 (0.000) | -0.056 (0.000) | -0.045 (0.000) | 0.081 (0.000) | 0.011 (0.357) | 0.022 (0.076) | 0.313 (0.000) | 0.250 (0.000) | 0.297 (0.000) | 0.739 (0.000) | 0.764 (0.000) | | 0.937 (0.000) | 0.642 (0.000) | 0.728 (0.000) | 0.534 (0.000) | 0.424 (0.000) |
| Trust in Provincial Government [IT4] | 0.044 (0.000) | 0.217 (0.000) | 0.233 (0.000) | 0.173 (0.000) | -0.042 (0.001) | -0.067 (0.000) | -0.043 (0.000) | 0.112 (0.000) | 0.016 (0.190) | 0.028 (0.023) | 0.324 (0.000) | 0.291 (0.000) | 0.313 (0.000) | 0.673 (0.000) | 0.734 (0.000) | 0.937 (0.000) | | 0.680 (0.000) | 0.718 (0.000) | 0.499 (0.000) | 0.383 (0.000) |
| Trust in Municipal Government [IT5] | -0.064 (0.000) | 0.247 (0.000) | 0.279 (0.000) | 0.176 (0.000) | -0.020 (0.109) | -0.064 (0.000) | -0.017 (0.172) | 0.084 (0.000) | 0.009 (0.474) | -0.002 (0.867) | 0.248 (0.000) | 0.370 (0.000) | 0.254 (0.000) | 0.390 (0.000) | 0.439 (0.000) | 0.642 (0.000) | 0.680 (0.000) | | 0.455 (0.000) | 0.275 (0.000) | 0.357 (0.000) |
| Trust in Political Parties [IT6] | 0.010 (0.370) | -0.028 (0.016) | -0.010 (0.394) | 0.077 (0.000) | 0.083 (0.000) | 0.002 (0.838) | -0.069 (0.000) | 0.107 (0.000) | 0.056 (0.000) | 0.022 (0.056) | 0.253 (0.000) | 0.091 (0.000) | 0.176 (0.000) | 0.813 (0.000) | 0.754 (0.000) | 0.728 (0.000) | 0.718 (0.000) | 0.455 (0.000) | | 0.627 (0.000) | 0.299 (0.000) |
| Trust in the Judiciary System [IT7] | 0.025 (0.030) | -0.079 (0.000) | -0.084 (0.000) | -0.012 (0.284) | 0.068 (0.000) | 0.077 (0.000) | 0.010 (0.402) | 0.021 (0.067) | 0.004 (0.725) | 0.002 (0.857) | 0.210 (0.000) | 0.033 (0.004) | 0.051 (0.000) | 0.679 (0.000) | 0.673 (0.000) | 0.534 (0.000) | 0.499 (0.000) | 0.275 (0.000) | 0.627 (0.000) | | 0.528 (0.000) |
| Trust in the Police [IT8] | 0.058 (0.000) | 0.053 (0.000) | 0.037 (0.001) | -0.040 (0.000) | -0.080 (0.000) | -0.041 (0.000) | 0.035 (0.002) | -0.046 (0.000) | -0.043 (0.000) | -0.026 (0.028) | 0.131 (0.000) | 0.192 (0.000) | 0.084 (0.000) | 0.426 (0.000) | 0.413 (0.000) | 0.424 (0.000) | 0.383 (0.000) | 0.357 (0.000) | 0.299 (0.000) | 0.528 (0.000) | |

*Note:* This table shows pairwise correlations of the Tax-based Social Capital measure and several other social capital variables from the survey *"Aspects of Daily Life"*, used by Durante et al. (2023) to construct four measures corresponding to four distinct components of social capital – i) social participation (here labelled [SP]), ii) political participation ([PP]), iii) trust in others ([GT]), and iv) trust in institutions ([IT]). P-values in parentheses.

Table A4: Validation Tax-based Social Capital

| *Dep. Variable*: | *Panel A*: *Social participation* (*from Survey*) | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| *Tax-based Social Capital* | 0.174*** | 0.073*** | 0.061** | 0.071*** |
| | (0.038) | (0.027) | (0.027) | (0.027) |
| | *Panel B*: *Giving money to voluntary associations* (*from Survey*) | | | |
| | (1) | (2) | (3) | (4) |
| *Tax-based Social Capital* | 0.183*** | 0.100*** | 0.090*** | 0.098*** |
| | (0.036) | (0.027) | (0.026) | (0.027) |
| | *Panel C*: *Doing non-paid activity for voluntary assoc.* (*from Survey*) | | | |
| | (1) | (2) | (3) | (4) |
| *Tax-based Social Capital* | 0.174*** | 0.065** | 0.031 | 0.063** |
| | (0.039) | (0.030) | (0.029) | (0.030) |
| | *Panel D*: *Doing non-paid activity for non-voluntary assoc.* (*from Survey*) | | | |
| | (1) | (2) | (3) | (4) |
| *Tax-based Social Capital* | 0.020 | -0.036 | -0.010 | -0.033 |
| | (0.033) | (0.029) | (0.029) | (0.029) |
| Year FEs | No | Yes | Yes | No |
| Regione FEs | No | Yes | No | No |
| Province FEs | No | No | Yes | No |
| Region-Year FEs | No | No | No | Yes |
| Observations | 9,085 | 9,085 | 9,085 | 9,085 |

NOTE: The table reports OLS estimates. The sample includes years between 2009 and 2021. The unit of observation is the municipality $i$ in year $t$. The dependent variable in Panel A is the survey-based measure of social participation, corresponding to the first principal component of the set of survey questions on social participation; in Panel B the dependent variable is based on a variable measuring donations to voluntary associations; in Panel C the dependent variable is based on a variable measuring non-paid activity for voluntary associations; in Panel D the dependent variable is based on a variable measuring non-paid activity for non-voluntary associations. All the variables are collected in the survey *"Aspects of Daily Life"*. The main independent variable is the tax-based measure of social capital, computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$, See Sections 2.1 and 3 for further details. Column (2) includes year and region FEs, Column (3) includes year and region FEs. Column (4) includes region-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

### A.5.2 Validation of Tax-based Trust in Local Institutions with survey data

We explore whether the number of taxpayers allocating 5‰ of their annual income tax to the municipality can be a valid measure of trust in local institutions. We use survey-based information from the ADL survey on the level of trust in local institutions observed at the municipality-year level.

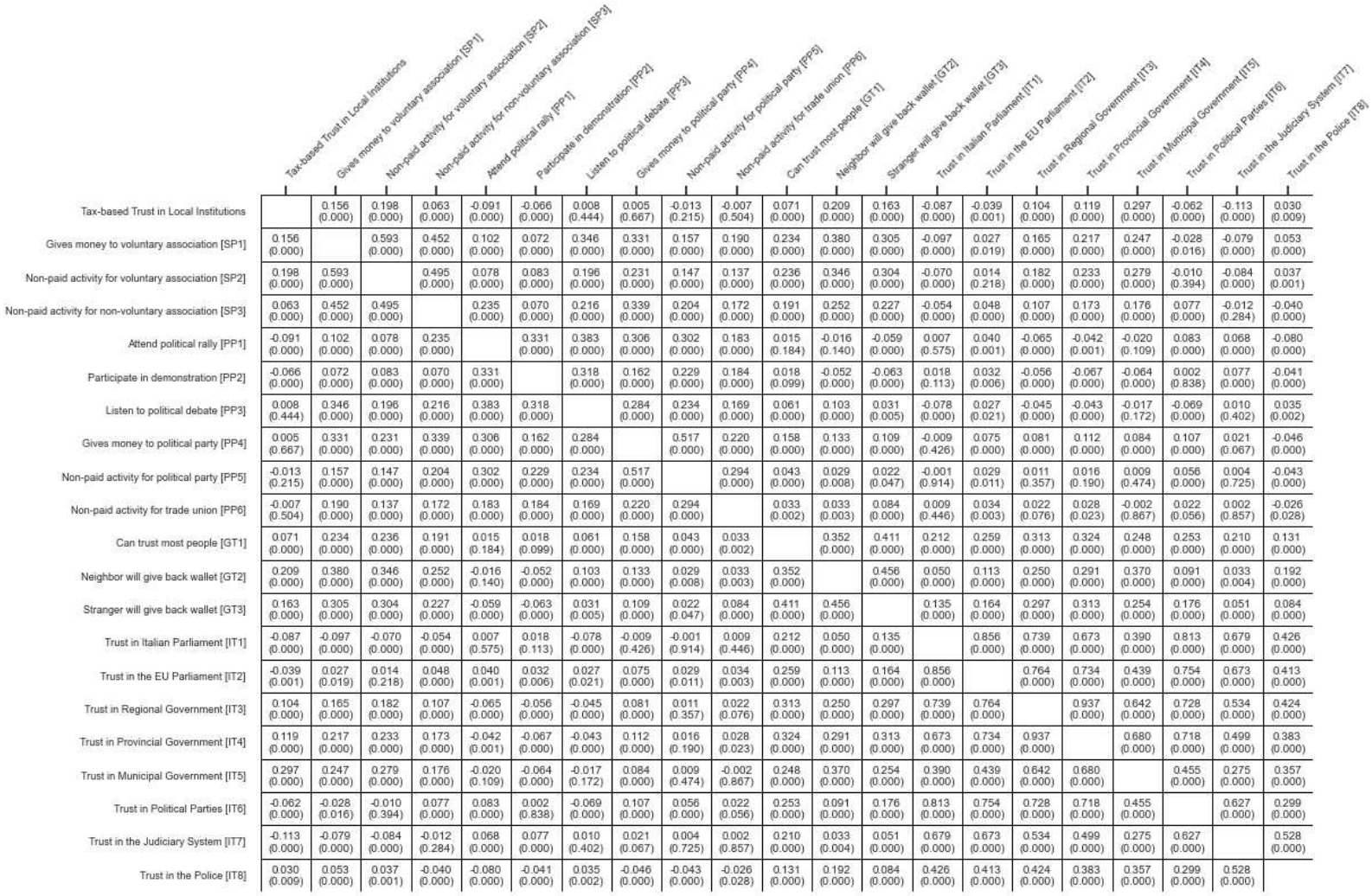
In Figure A5 we display the spatial distribution of tax-based trust obtained using the share of number of taxpayers allocating 5‰ of their annual income tax to the social activities carried out by municipality over the total number of taxpayers observed in the municipality.

In Figure A6 we replicate the analysis from Figure A4, but this time we individually examine the correlation of the tax-based trust measure with each variable from the ADL survey utilized by Durante et al. (2023) in their PCA analysis. The results highlight a strong positive correlation of our measure of trust based on 5‰ choices and trust in regional, provincial and municipal government measured using survey data. Interestingly, the tax-based measure of trust is negatively correlated with trust in the Italian Parliament. The measure is also correlated with measures of general trust and social participation. While our measure might capture different aspects of trust, overall we detect the strongest positive correlation with trust in municipal government. This lends support to our method of measuring trust in local institutions.

Figure A5: Tax-based Trust in Local Institutions - Spatial Distribution


*Note:* The figure shows the distribution of our measure of Tax-based Trust in Local Institutions in Italian municipalities for the year 2009.

Figure A6: Pairwise correlations of tax-based trust in local institutions with Durante et al. (2023) measures - Municipality-year level



| | Tax-based Trust in Local Institutions | Gives money to voluntary association [SP1] | Non-paid activity for voluntary association [SP2] | Non-paid activity for non-voluntary association [SP3] | Attend political rally [PP1] | Participate in demonstration [PP2] | Listen to political debate [PP3] | Gives money to political party [PP4] | Non-paid activity for political party [PP5] | Non-paid activity for trade union [PP6] | Can trust most people [GT1] | Neighbor will give back wallet [GT2] | Stranger will give back wallet [GT3] | Trust in Italian Parliament [IT1] | Trust in the EU Parliament [IT2] | Trust in Regional Government [IT3] | Trust in Provincial Government [IT4] | Trust in Municipal Government [IT5] | Trust in Political Parties [IT6] | Trust in the Judiciary System [IT7] | Trust in the Police [IT8] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tax-based Trust in Local Institutions | | 0.156 (0.000) | 0.198 (0.000) | 0.063 (0.000) | -0.091 (0.000) | -0.066 (0.000) | 0.008 (0.444) | 0.005 (0.667) | -0.013 (0.215) | -0.007 (0.504) | 0.071 (0.000) | 0.209 (0.000) | 0.163 (0.000) | -0.087 (0.000) | -0.039 (0.001) | 0.104 (0.000) | 0.119 (0.000) | 0.297 (0.000) | -0.062 (0.000) | -0.113 (0.000) | 0.030 (0.009) |
| Gives money to voluntary association [SP1] | 0.156 (0.000) | | 0.593 (0.000) | 0.452 (0.000) | 0.102 (0.000) | 0.072 (0.000) | 0.346 (0.000) | 0.331 (0.000) | 0.157 (0.000) | 0.190 (0.000) | 0.234 (0.000) | 0.380 (0.000) | 0.305 (0.000) | -0.097 (0.000) | 0.027 (0.019) | 0.165 (0.000) | 0.217 (0.000) | 0.247 (0.000) | -0.028 (0.016) | -0.079 (0.000) | 0.053 (0.000) |
| Non-paid activity for voluntary association [SP2] | 0.198 (0.000) | 0.593 (0.000) | | 0.495 (0.000) | 0.078 (0.000) | 0.083 (0.000) | 0.196 (0.000) | 0.231 (0.000) | 0.147 (0.000) | 0.137 (0.000) | 0.236 (0.000) | 0.346 (0.000) | 0.304 (0.000) | -0.070 (0.000) | 0.014 (0.218) | 0.182 (0.000) | 0.233 (0.000) | 0.279 (0.000) | -0.010 (0.394) | -0.084 (0.000) | 0.037 (0.001) |
| Non-paid activity for non-voluntary association [SP3] | 0.063 (0.000) | 0.452 (0.000) | 0.495 (0.000) | | 0.235 (0.000) | 0.070 (0.000) | 0.216 (0.000) | 0.339 (0.000) | 0.204 (0.000) | 0.172 (0.000) | 0.191 (0.000) | 0.252 (0.000) | 0.227 (0.000) | -0.054 (0.000) | 0.048 (0.000) | 0.107 (0.000) | 0.173 (0.000) | 0.176 (0.000) | 0.077 (0.000) | -0.012 (0.284) | -0.040 (0.000) |
| Attend political rally [PP1] | -0.091 (0.000) | 0.102 (0.000) | 0.078 (0.000) | 0.235 (0.000) | | 0.331 (0.000) | 0.383 (0.000) | 0.306 (0.000) | 0.302 (0.000) | 0.183 (0.000) | 0.015 (0.184) | -0.016 (0.140) | -0.059 (0.000) | 0.007 (0.575) | 0.040 (0.001) | -0.065 (0.000) | -0.042 (0.001) | -0.020 (0.109) | 0.083 (0.000) | 0.068 (0.000) | -0.080 (0.000) |
| Participate in demonstration [PP2] | -0.066 (0.000) | 0.072 (0.000) | 0.083 (0.000) | 0.070 (0.000) | 0.331 (0.000) | | 0.318 (0.000) | 0.162 (0.000) | 0.229 (0.000) | 0.184 (0.000) | 0.018 (0.099) | -0.052 (0.000) | -0.063 (0.000) | 0.018 (0.113) | 0.032 (0.006) | -0.056 (0.000) | -0.067 (0.000) | -0.064 (0.000) | 0.002 (0.838) | 0.077 (0.000) | -0.041 (0.000) |
| Listen to political debate [PP3] | 0.008 (0.444) | 0.346 (0.000) | 0.196 (0.000) | 0.216 (0.000) | 0.383 (0.000) | 0.318 (0.000) | | 0.284 (0.000) | 0.234 (0.000) | 0.169 (0.000) | 0.061 (0.000) | 0.103 (0.000) | 0.031 (0.005) | -0.078 (0.000) | 0.027 (0.021) | -0.045 (0.000) | -0.043 (0.000) | -0.017 (0.172) | -0.069 (0.000) | 0.010 (0.402) | 0.035 (0.002) |
| Gives money to political party [PP4] | 0.005 (0.667) | 0.331 (0.000) | 0.231 (0.000) | 0.339 (0.000) | 0.306 (0.000) | 0.162 (0.000) | 0.284 (0.000) | | 0.517 (0.000) | 0.220 (0.000) | 0.158 (0.000) | 0.133 (0.000) | 0.109 (0.000) | -0.009 (0.426) | 0.075 (0.000) | 0.081 (0.000) | 0.112 (0.000) | 0.084 (0.000) | 0.107 (0.000) | 0.021 (0.067) | -0.046 (0.000) |
| Non-paid activity for political party [PP5] | -0.013 (0.215) | 0.157 (0.000) | 0.147 (0.000) | 0.204 (0.000) | 0.302 (0.000) | 0.229 (0.000) | 0.234 (0.000) | 0.517 (0.000) | | 0.294 (0.000) | 0.043 (0.000) | 0.029 (0.008) | 0.022 (0.047) | -0.001 (0.914) | 0.029 (0.011) | 0.011 (0.357) | 0.016 (0.190) | 0.009 (0.474) | 0.056 (0.000) | 0.004 (0.725) | -0.043 (0.000) |
| Non-paid activity for trade union [PP6] | -0.007 (0.504) | 0.190 (0.000) | 0.137 (0.000) | 0.172 (0.000) | 0.183 (0.000) | 0.184 (0.000) | 0.169 (0.000) | 0.220 (0.000) | 0.294 (0.000) | | 0.033 (0.002) | 0.033 (0.003) | 0.084 (0.000) | 0.009 (0.446) | 0.034 (0.003) | 0.022 (0.076) | 0.028 (0.023) | -0.002 (0.867) | 0.022 (0.056) | 0.002 (0.857) | -0.026 (0.028) |
| Can trust most people [GT1] | 0.071 (0.000) | 0.234 (0.000) | 0.236 (0.000) | 0.191 (0.000) | 0.015 (0.184) | 0.018 (0.099) | 0.061 (0.000) | 0.158 (0.000) | 0.043 (0.000) | 0.033 (0.002) | | 0.352 (0.000) | 0.411 (0.000) | 0.212 (0.000) | 0.259 (0.000) | 0.313 (0.000) | 0.324 (0.000) | 0.248 (0.000) | 0.253 (0.000) | 0.210 (0.000) | 0.131 (0.000) |
| Neighbor will give back wallet [GT2] | 0.209 (0.000) | 0.380 (0.000) | 0.346 (0.000) | 0.252 (0.000) | -0.016 (0.140) | -0.052 (0.000) | 0.103 (0.000) | 0.133 (0.000) | 0.029 (0.008) | 0.033 (0.003) | 0.352 (0.000) | | 0.456 (0.000) | 0.050 (0.000) | 0.113 (0.000) | 0.250 (0.000) | 0.291 (0.000) | 0.370 (0.000) | 0.091 (0.000) | 0.033 (0.004) | 0.192 (0.000) |
| Stranger will give back wallet [GT3] | 0.163 (0.000) | 0.305 (0.000) | 0.304 (0.000) | 0.227 (0.000) | -0.059 (0.000) | -0.063 (0.000) | 0.031 (0.005) | 0.109 (0.000) | 0.022 (0.047) | 0.084 (0.000) | 0.411 (0.000) | 0.456 (0.000) | | 0.135 (0.000) | 0.164 (0.000) | 0.297 (0.000) | 0.313 (0.000) | 0.254 (0.000) | 0.176 (0.000) | 0.051 (0.000) | 0.084 (0.000) |
| Trust in Italian Parliament [IT1] | -0.087 (0.000) | -0.097 (0.000) | -0.070 (0.000) | -0.054 (0.000) | 0.007 (0.575) | 0.018 (0.113) | -0.078 (0.000) | -0.009 (0.426) | -0.001 (0.914) | 0.009 (0.446) | 0.212 (0.000) | 0.050 (0.000) | 0.135 (0.000) | | 0.856 (0.000) | 0.739 (0.000) | 0.673 (0.000) | 0.390 (0.000) | 0.813 (0.000) | 0.679 (0.000) | 0.426 (0.000) |
| Trust in the EU Parliament [IT2] | -0.039 (0.001) | 0.027 (0.019) | 0.014 (0.218) | 0.048 (0.000) | 0.040 (0.001) | 0.032 (0.006) | 0.027 (0.021) | 0.075 (0.000) | 0.029 (0.011) | 0.034 (0.003) | 0.259 (0.000) | 0.113 (0.000) | 0.164 (0.000) | 0.856 (0.000) | | 0.764 (0.000) | 0.734 (0.000) | 0.439 (0.000) | 0.754 (0.000) | 0.673 (0.000) | 0.413 (0.000) |
| Trust in Regional Government [IT3] | 0.104 (0.000) | 0.165 (0.000) | 0.182 (0.000) | 0.107 (0.000) | -0.065 (0.000) | -0.056 (0.000) | -0.045 (0.000) | 0.081 (0.000) | 0.011 (0.357) | 0.022 (0.076) | 0.313 (0.000) | 0.250 (0.000) | 0.297 (0.000) | 0.739 (0.000) | 0.764 (0.000) | | 0.937 (0.000) | 0.642 (0.000) | 0.728 (0.000) | 0.534 (0.000) | 0.424 (0.000) |
| Trust in Provincial Government [IT4] | 0.119 (0.000) | 0.217 (0.000) | 0.233 (0.000) | 0.173 (0.000) | -0.042 (0.001) | -0.067 (0.000) | -0.043 (0.000) | 0.112 (0.000) | 0.016 (0.190) | 0.028 (0.023) | 0.324 (0.000) | 0.291 (0.000) | 0.313 (0.000) | 0.673 (0.000) | 0.734 (0.000) | 0.937 (0.000) | | 0.680 (0.000) | 0.718 (0.000) | 0.499 (0.000) | 0.383 (0.000) |
| Trust in Municipal Government [IT5] | 0.297 (0.000) | 0.247 (0.000) | 0.279 (0.000) | 0.176 (0.000) | -0.020 (0.109) | -0.064 (0.000) | -0.017 (0.172) | 0.084 (0.000) | 0.009 (0.474) | -0.002 (0.867) | 0.248 (0.000) | 0.370 (0.000) | 0.254 (0.000) | 0.390 (0.000) | 0.439 (0.000) | 0.642 (0.000) | 0.680 (0.000) | | 0.455 (0.000) | 0.275 (0.000) | 0.357 (0.000) |
| Trust in Political Parties [IT6] | -0.062 (0.000) | -0.028 (0.016) | -0.010 (0.394) | 0.077 (0.000) | 0.083 (0.000) | 0.002 (0.838) | -0.069 (0.000) | 0.107 (0.000) | 0.056 (0.000) | 0.022 (0.056) | 0.253 (0.000) | 0.091 (0.000) | 0.176 (0.000) | 0.813 (0.000) | 0.754 (0.000) | 0.728 (0.000) | 0.718 (0.000) | 0.455 (0.000) | | 0.627 (0.000) | 0.299 (0.000) |
| Trust in the Judiciary System [IT7] | -0.113 (0.000) | -0.079 (0.000) | -0.084 (0.000) | -0.012 (0.284) | 0.068 (0.000) | 0.077 (0.000) | 0.010 (0.402) | 0.021 (0.067) | 0.004 (0.725) | 0.002 (0.857) | 0.210 (0.000) | 0.033 (0.004) | 0.051 (0.000) | 0.679 (0.000) | 0.673 (0.000) | 0.534 (0.000) | 0.499 (0.000) | 0.275 (0.000) | 0.627 (0.000) | | 0.528 (0.000) |
| Trust in the Police [IT8] | 0.030 (0.009) | 0.053 (0.000) | 0.037 (0.001) | -0.040 (0.000) | -0.080 (0.000) | -0.041 (0.000) | 0.035 (0.002) | -0.046 (0.000) | -0.043 (0.000) | -0.026 (0.028) | 0.131 (0.000) | 0.192 (0.000) | 0.084 (0.000) | 0.426 (0.000) | 0.413 (0.000) | 0.424 (0.000) | 0.383 (0.000) | 0.357 (0.000) | 0.299 (0.000) | 0.528 (0.000) | |

*Note:* This table shows pairwise correlations of the Tax-based Trust in Local Institutions measure (i.e., the share of number of taxpayers allocating 5‰ of their annual income tax to the social activities carried out by municipality over the total number of taxpayers observed) and several other social capital variables from the survey *"Aspects of Daily Life"*, used by Durante et al. (2023) to construct four measures corresponding to four distinct components of social capital – i) social participation (here labelled [SP]), ii) political participation ([PP]), iii) trust in others ([GT]), and iv) trust in institutions ([IT]). P-values in parentheses.

In Table A5, we regress municipality-year level trust in local institutions from the ADL survey on the share of number of taxpayers allocating 5‰ of their annual income tax to the social activities carried out by the municipality over the total number of taxpayers observed in municipality $i$ in year $t$. Corresponding results are presented in Table A5.[34] The coefficients of interest indicate a positive and statistically significant association between our measure and survey data. Overall, the results displayed in Table A5 provide support for our method of measuring trust in local institutions using tax-based information.

Table A5: Validation Tax-based Trust in Local Institutions

| *Dep. Variable*: | *Trust in Local Institutions* (*from Survey*) | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| *Tax-based Trust in Local Institutions* | 0.811*** | 0.575*** | 0.540*** | 0.585*** |
| | (0.049) | (0.041) | (0.041) | (0.041) |
| Year FEs | No | Yes | Yes | No |
| Regione FEs | No | Yes | No | No |
| Province FEs | No | No | Yes | Yes |
| Region-Year FEs | No | No | No | Yes |
| Observations | 6,583 | 6,583 | 6,583 | 6,583 |

NOTE: The table reports OLS estimates. The sample includes all years between 2012 and 2021. The dependent variable is the survey-based measure of Trust in Local Institutions, corresponding to the survey question on trust in the municipal government. The variable is collected in the survey *"Aspects of Daily Life"*. The main independent variable is the tax-based measure of trust, computed as the share of number of taxpayers allocating 5‰ of their annual income tax to the social activities carried out by the municipality over the total number of taxpayers observed in municipality $i$ in year $t$, See Sections 2.1 and 3 for further details. Column (2) includes year and region FEs, Column (3) includes year and region FEs. Column (4) includes region-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

[34] It is worth noting that the number of observations between Table A5 and Table A4 differs since the question on trust in local institutions was introduced in the ADL survey only from 2012 onwards.

# B Main robustness exercises

## B.1 Alternative construction of the dependent variable

We perform several exercises related to alternative constructions of the dependent variable.
In particular, we replicate our main results by: i) removing the threshold criteria whereby we consider only those associations receiving less than 50,000 euros in donations to identify smaller and community-oriented organizations (Table A6), ii) using an higher threshold equal to 100,000 euros to identify community-oriented organizations (Table A7), iii) removing the threshold and dropping observations where the number of taxpayers donating 5‰ is larger or equal than two times the total number of taxpayers in the municipality (Table A8), to exclude associations of national rather than local relevance.
Finally, in Table A9 we replicate the main analysis using as dependent variable the income amount allocated to 5‰ over the total taxable income in the municipality. We also rescale the share by dividing it by one thousand to obtain more informative estimates. The results are statistically significant and, in our preferred specification, imply an increase of around 3 percentage points in the share of income allocated to 5‰ following the dissolution of a municipal government.

Table A6: Alternative Dependent Variables - Removing threshold-based criteria

| *Dep. Variable*: *Tax-based Social Capital* [*No Threshold*] | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.021 | 0.022 | 0.027** |
| | (0.014) | (0.014) | (0.013) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.011 | 0.011 | 0.017 |
| | (0.013) | (0.013) | (0.013) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.092 | 0.092 | 0.092 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. Results are obtained by removing the threshold-based criteria and by considering all associations. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, $\textit{Tax-based Social Capital [Pre-Period]}_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A7: Alternative Dependent Variables - Using larger threshold-based criteria

| *Dep. Variable*: *Tax-based Social Capital* [*Threshold* 100$K$] | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.027** | 0.028** | 0.029** |
| | (0.012) | (0.012) | (0.012) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.020** | 0.020** | 0.022** |
| | (0.009) | (0.009) | (0.009) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.083 | 0.083 | 0.083 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. Results are obtained by setting the threshold-based criteria equals to 100,000 euros. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Alternative Dependent Variables - Using taxpayer-based threshold

| *Dep. Variable*: *Tax-based Social Capital* [*Taxpayer Threshold*] | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.032** | 0.032** | 0.030** |
| | (0.013) | (0.013) | (0.012) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.025*** | 0.025*** | 0.023** |
| | (0.009) | (0.009) | (0.009) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.082 | 0.082 | 0.082 |
| Observations | 103,313 | 103,313 | 103,313 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. Results are obtained by removing the threshold and dropping observations where the number of taxpayers donating 5‰ is larger or equal than two times the total number of taxpayers in the municipality. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: Alternative Dependent Variables - Using amount 5‰

| *Dep. Variable*: 5 ‰ *to Local Non-profit over Taxable Income* (/1000) | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.036** | 0.036** | 0.037** |
| | (0.016) | (0.016) | (0.016) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.028** | 0.028** | 0.027** |
| | (0.011) | (0.011) | (0.013) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| 5 ‰ to Local Non-profit over Tax. Inc. [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.118 | 0.118 | 0.118 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is the income amount allocated to 5‰ over the total taxable income observed in municipality $i$ in year $t$, divided by one thousand. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the amount allocated to 5‰ over the total taxable income observed in municipality $i$ in year 2006 v, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## B.2 Poisson analysis

To reflect the underlying count data structure of our data, we rely on a Poisson model. The dependent variable of interest is the number of taxpayers allocating 5‰ of their annual income tax to voluntary associations of municipality $i$ in year $t$. Corresponding results are displayed in Table A10.

To compare the Poisson estimates to our main results, we follow Wooldridge (2023) and obtain the average treatment effect on the treated from the marginal effect of the interaction term (equal to 149 using our preferred specification). This is comparable to the interaction term coefficient in the linear two-way FE model and corresponds to a 16.3% effect when compared to the sample mean.

A caveat is that the Poisson model drops observations with no variation in the dependent variable (for instance, when the number of taxpayers allocating 5‰ in a municipality is always zero), which explains the smaller number of observations in Table A10. To make our main results fully comparable to the Poisson results, in Table A11 we replicate Table 1 using the Poisson sample. Results are not sensitive to the different sample choice.

Table A10: Poisson Estimates

| | *Number of 5‰ Choices to Vol. Ass.* | | |
|---|---|---|---|
| *Dep. Variable*: | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.129** | 0.117** | 0.152*** |
| | (0.057) | (0.056) | (0.055) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Number of 5‰ Choices to Vol. Ass. [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 763.703 | 763.703 | 763.703 |
| Observations | 83,161 | 83,161 | 83,161 |

NOTE: The table reports Poisson estimates. The sample includes all years between 2009 and 2021. The dependent variable is computed as the number of taxpayers allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year $t$, *Tax-based Social Capital*$_{it}$. See Sections 2.1 and 3 for further details. The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the number of taxpayers allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A11: Replica Table 1 using Sample of Table A10

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.021** | 0.021** | 0.023** |
| | (0.010) | (0.010) | (0.010) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.016** | 0.015** | 0.017** |
| | (0.007) | (0.007) | (0.008) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-Period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.098 | 0.098 | 0.098 |
| Observations | 83,161 | 83,161 | 83,161 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample corresponds to the sample used in Table A10. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

### B.3 Alternative controls

In what follows, we investigate the sensitivity of the baseline findings when using additional control variables. To make sure that our results are not driven by time-varying demographic and economic variables, we account for i) (log) population, ii) (log) number of taxpayers, iii) (log) total taxable income, iv) (log) taxable income per capita and v) a measure of income inequality.[35] These variables are observed at the municipality-year level and are accounted for in a flexible way by using a 10 pieces spline for each of them. Corresponding estimates are presented in Table A12.

Finally, instead of contemporary demographic and economic municipal-level characteristics, we use pre-sample values of these controls interacted with year dummies. For instance, instead of controlling for the number of taxpayers observed in municipality $i$ in year $t$, we use the number of taxpayers observed in municipality $i$ in the pre-sample period (i.e., 2006). The results from this alternative approach are reported in Table A13, and we find that our findings are robust to this sensitivity check.[36]

[35] We compute a time-varying measure of inequality at the municipal level using the ratio of individuals with taxable income above 75,000 € and individuals with taxable income below 10,000 €.

[36] We highlight the following caveat: when applying the Borusyak et al. (2024) estimation method, the model fails to converge due to the large number of control variables. To address this issue, we adopt the suggested solution of increasing the tolerance parameter, which affects the iterative procedure used to search for the weights underlying the estimator. It is important to note that the baseline estimates are not affected when using a higher tolerance.

Table A12: Including (current) demographic and economic controls

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.022** | 0.021** | 0.023** |
| | (0.009) | (0.009) | (0.009) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.016** | 0.016** | 0.017** |
| | (0.007) | (0.007) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Demographic and Economic Controls [Current] | Yes | Yes | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. All columns include controls for: i) (log) population, ii) (log) number of taxpayers, iii) (log) total taxable income, iv) (log) taxable income per capita and v) a measure of income for the municipality $i$ in year $t$. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A13: Including (pre-sample) demographic and economic controls

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.027*** | 0.026*** | 0.026*** |
| | (0.010) | (0.010) | (0.010) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.021*** | 0.020*** | 0.020*** |
| | (0.007) | (0.007) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Demographic and Economic Controls [Pre-Sample] | Yes | Yes | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. All columns include controls for: i) (log) population, ii) (log) number of taxpayers, iii) (log) total taxable income, iv) (log) taxable income per capita and v) a measure of income for the municipality $i$ in 2006 interacted with year dummies. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## B.4 Alternative levels of clustering

Table A14 below show that the conclusions of the statistical inference continue to hold when we allow for standard errors to be clustered at an alternative level. Table A14 allows for standard errors to be clustered at the level of the 107 Italian provinces (as per 2009). The statistical inference is similar, and we continue to find a statistically significant effect of municipality dissolution on social capital.

Table A14: Alternative level of clustering - Clustering of standard errors at the province level

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.021*** | 0.021*** | 0.023*** |
| | (0.007) | (0.007) | (0.007) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.016*** | 0.016*** | 0.017*** |
| | (0.006) | (0.006) | (0.005) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the province level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## B.5 Spatial spillovers

We investigate the presence of spillovers effects of dissolution for Mafia infiltration on social capital in neighboring municipalities. We define as neighboring municipalities those located within a ten-kilometer radius from dissolved municipalities. Corresponding results, displayed in Table A15, show that dissolution doesn't affect social capital in municipalities nearby.

Table A15: Spatial Spillovers

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia within 10 KMs* | 0.003 | 0.003 | 0.002 |
| | (0.004) | (0.004) | (0.005) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia within 10 KMs* | 0.003 | 0.002 | 0.004 |
| | (0.005) | (0.005) | (0.005) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 101,855 | 101,855 | 101,855 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. Municipalities that have been dissolved for Mafia infiltration are excluded from the sample. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia within 10 KMs* is an indicator variable that takes a value of 1 after the city council of a neighboring municipality located within a ten-kilometer radius has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

### B.6 Confounding factors - Migration

To address concerns about the accuracy of our tax-based social capital measurement due to unknown taxpayer residence details, we conducted robustness tests to mitigate potential misinterpretations.

Using data on internal migrations at the provincial level, we have omitted provinces experiencing the largest influx of migrants from those provinces where at least one municipality has been dissolved due to Mafia activity. This method is designed to minimize the potential impact of inter-provincial migration on our social capital metrics, thereby more clearly distinguishing the effects of local involvement from those of migration across provinces. Corresponding estimates are presented in Table A16.

Secondly, we have excluded from the control group all municipalities within provinces that have experienced the dissolution of at least one municipality due to Mafia influence. This approach mitigates the potential confounding effects of migration within these provinces. Estimates are displayed in Table A17.

Finally, due to the unavailability of migration data at the municipal level, we have employed the surname distribution from the 1993 national telephone directory to analyze migration patterns at this level. This data, sourced from the SEAT telephone directory (as detailed in Buonanno and Vanin (2017)), enabled us to identify and subsequently exclude from the control group municipalities where the most common surnames overlap significantly with the top three surnames prevalent in Mafia-affected municipalities. This method enhances the precision and detail of our analysis concerning possible migration trends. Results are reported in Table A18.

In all exercises reported in this section, our findings are very similar to our main baseline results presented in Table 1. This consistency implies that any confounding influences stemming from migration patterns are likely to be insubstantial.

Table A16: Migration across provinces

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.023** | 0.022** | 0.023** |
| | (0.009) | (0.009) | (0.011) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.017** | 0.017** | 0.016** |
| | (0.007) | (0.007) | (0.008) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.079 | 0.079 | 0.079 |
| Observations | 81,978 | 81,978 | 81,888 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. Municipalities from provinces experiencing the largest influx of migrants from those provinces where at least one municipality has been dissolved due to Mafia infiltration are removed from the control group. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A17: Migration within provinces

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.022** | 0.022** | 0.030*** |
| | (0.009) | (0.009) | (0.011) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.017** | 0.017** | 0.025*** |
| | (0.007) | (0.007) | (0.008) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 76,856 | 76,856 | 76,600 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. Municipalities from province having at least one municipality dissolved due to Mafia infiltration are removed from the control group. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A18: Migration between municipalities

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.023** | 0.023** | 0.022** |
| | (0.009) | (0.009) | (0.010) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.018*** | 0.018*** | 0.015* |
| | (0.007) | (0.007) | (0.008) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.073 | 0.073 | 0.073 |
| Observations | 57,187 | 57,187 | 57,187 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. Using SEAT telephone directory data (as detailed in Buonanno and Vanin (2017)), we have excluded from the control group municipalities where the most common surnames overlap significantly with the top three surnames prevalent in Mafia-affected municipalities. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, $\textit{Tax-based Social Capital [Pre-Period]}_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

### B.7 Alternative samples

Municipalities in Italy may be dissolved due to various reasons, irrespective of any potential involvement of Mafia infiltration. For example, it could occur because of financial difficulties and political instability such as a vote of no confidence from councillors expressing their lack of trust in the mayor.

In our main sample, we are comparing municipalities that were dissolved due to Mafia infiltration with those that were not. Therefore, we are including municipalities that were dissolved for reasons unrelated to the Mafia, similar to non-dissolved municipalities. In this Section, we aim to minimize potential confounding effects arising from non-Mafia-related dissolution. We replicate our baseline results using municipalities that were dissolved due to Mafia infiltration and municipalities whose municipal council was not dissolved during our period of interest. The corresponding results are presented in Table A19. The estimates are consistent with the ones reported in the main text, and the coefficients magnitude is slightly higher.

Finally, our control group may contain false negatives - municipalities where criminal infiltration is present but not officially recognized - which could introduce biases into our estimates. To address this issue, we have conducted an additional robustness check by removing from the control group municipalities from regions having at least one municipality dissolved due to Mafia infiltration. Corresponding results are presented in Table A20 and confirm the consistency of our results.

Table A19: Exclude from the sample municipalities dissolved for administrative or political reasons

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.024** | 0.023** | 0.028*** |
| | (0.009) | (0.009) | (0.010) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.018*** | 0.018*** | 0.022*** |
| | (0.007) | (0.007) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.076 | 0.076 | 0.076 |
| Observations | 78,065 | 78,065 | 78,065 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. Municipalities that have been dissolved for administrative or political reasons are excluded from the sample. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A20: Remove regions with at least one infiltrated municipality from the sample

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.022** | 0.022** | 0.032*** |
| | (0.009) | (0.009) | (0.012) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.017** | 0.017** | 0.029*** |
| | (0.007) | (0.007) | (0.009) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.072 | 0.072 | 0.072 |
| Observations | 40,105 | 40,105 | 39,778 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. Municipalities from regions having at least one municipality dissolved due to Mafia infiltration are removed from the control group. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## B.8 Alternative definitions of dissolution

In our analysis, we consider the dissolution for Mafia as an absorbing state, represented by the indicator variable *Municipality dissolved for Mafia*, which remains active after the dissolution. To address concerns about multiple dissolutions, we exclude treated municipalities that were already dissolved due to Mafia between 1998 and 2009, which is the first year of our sample.[37]

To test the sensitivity of our results, we examine alternative sample definitions excluding previously treated municipalities that don't meet specific criteria. Tables A21 andA22 present the results. Column 1 shows the baseline sample, while Column 2 excludes all municipalities dissolved before 2009. Columns 3 to 10 modify the minimum required distance between the last dissolution year before 2009 (ranging from 1991 to 2005) and the dissolution year after 2009. For example, Column 3 excludes municipalities already dissolved due to Mafia between 1991 and 2009. Our results remain robust across these various definitions of municipal dissolution.

[37] A municipality that experienced multiple dissolutions, such as in 2005 and 2010, is excluded, while a municipality dissolved in 1994 and then again in 2010 is included.

## Table A21: Alternative definition of dissolution because of Mafia - TWFE

| *Dep. Variable*: *Tax-based Social Capital* | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Municipality dissolved for Mafia* | 0.023** | 0.024** | 0.024** | 0.024** | 0.024** | 0.024** | 0.023** | 0.022** | 0.021** | 0.021** |
| | (0.009) | (0.011) | (0.010) | (0.010) | (0.010) | (0.010) | (0.009) | (0.009) | (0.009) | (0.009) |
| Sample | Base | Restr. | 1991 | 1993 | 1995 | 1997 | 1999 | 2001 | 2003 | 2005 |
| Number Mun. Dissolved | 127 | 109 | 113 | 119 | 120 | 125 | 127 | 131 | 137 | 139 |
| Mean | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Observations | 103,506 | 103,246 | 103,298 | 103,389 | 103,402 | 103,480 | 103,506 | 103,558 | 103,636 | 103,675 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital, based on a two-way FE model (see Equation (1)). The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (1) includes the same controls as in Column (3) of Table 1. Column (2) use a sample that excludes all municipalities that were ever dissolved before 2009. Column (3) to Column (10) use a sample that excludes municipalities that were dissolved later than a year ranging from 1991 (Column (3)) to 2005 (Column (10)). Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## Table A22: Alternative definition of dissolution because of Mafia - Borusyak et al. (2024)

| *Dep. Variable*: *Tax-based Social Capital* | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|---|
| *Municipality dissolved for Mafia* | 0.017** | 0.017** | 0.017** | 0.017** | 0.017** | 0.017** | 0.017** | 0.017** | 0.016** | 0.016** |
| | (0.007) | (0.008) | (0.008) | (0.008) | (0.008) | (0.007) | (0.007) | (0.007) | (0.007) | (0.007) |
| Sample | Base | Restr. | 1991 | 1993 | 1995 | 1997 | 1999 | 2001 | 2003 | 2005 |
| Number Mun. Dissolved | 127 | 109 | 113 | 119 | 120 | 125 | 127 | 131 | 137 | 139 |
| Mean | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Observations | 103,506 | 103,246 | 103,298 | 103,389 | 103,402 | 103,480 | 103,506 | 103,558 | 103,636 | 103,675 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital, based on Borusyak et al. (2024) estimation model. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (1) includes the same controls as in Column (3) of Table 1. Column (2) use a sample that excludes all municipalities that were ever dissolved before 2009. Column (3) to Column (10) use a sample that excludes municipalities that were dissolved later than a year ranging from 1991 (Column (3)) to 2005 (Column (10)). Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## B.9 Alternative coding of year of dissolution

Taxpayers have two deadlines (September 30th and November 30th) to submit their tax returns. To address potential concerns related to the fact that dissolution occurs after tax filing, we code the year after actual dissolution as the first year of the post-dissolution period if it is after the September deadline. Results are presented in Table A23 and closely resemble those in the main text.

Table A23: Alternative coding of year of dissolution

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.022** | 0.022** | 0.024** |
| | (0.009) | (0.009) | (0.010) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.017** | 0.017** | 0.018** |
| | (0.007) | (0.007) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

# C Alternative mechanisms

In this section, we present a series of exercises aimed at investigating alternative channels that could serve as a potential mechanism to explain the evidence presented in the main text.

## C.1 Trust diversion or a boost to citizens' engagement? - Additional results

Table A24 displays the impact of dissolving municipalities on the share of taxpayers who allocate a portion of their income tax to voluntary associations or municipalities.

Table A24: *Mafia Infiltration* and share of taxpayers allocating 5‰

| *Dep. Variable*: *Share taxpayers allocating* 5‰ | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.021** | 0.020** | 0.022** |
| | (0.009) | (0.009) | (0.009) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.014** | 0.014** | 0.015** |
| | (0.007) | (0.007) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Share taxpayers allocating 5‰ [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Sample Mean | 0.100 | 0.100 | 0.100 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on the share of taxpayers allocating 5‰ of their annual income tax to voluntary associations or the social activities carried out by municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax in municipality $i$ in year 2006, *Share of taxpayers allocating 5‰ [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

## C.2 Increase in the number of voluntary associations - Additional results

This appendix contains the results related to Section 6.2 in the main text. Table A25 displays results obtained using our main outcome variable and including controls for registered associations observed in the municipality-year. Table A26 includes flexible controls for the pre-sample registered associations observed in the municipality.

Table A25: Including controls for the actual number of voluntary associations

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.019** | 0.019** | 0.020** |
| | (0.009) | (0.009) | (0.009) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.014** | 0.014** | 0.013* |
| | (0.006) | (0.006) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Number of Voluntary Associations (Share) [Current] | Yes | Yes | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, $\textit{Tax-based Social Capital [Pre-Period]}_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. All columns include as additional control the number of registered voluntary associations (over the total number of taxpayers) observed in the municipality $i$ in year $t$. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A26: Including controls for the number of voluntary associations observed in the pre-sample period

| *Dep. Variable*: *Tax-based Social Capital* | *Panel A*: *TWFE* | | |
|---|---|---|---|
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.021** | 0.022** | 0.023** |
| | (0.009) | (0.009) | (0.009) |
| | *Panel B*: *Borusyak et al.* (2024) | | |
| | (1) | (2) | (3) |
| *Municipality dissolved for Mafia* | 0.016** | 0.016** | 0.017** |
| | (0.007) | (0.007) | (0.007) |
| Municipality FEs | Yes | Yes | Yes |
| Year FEs | Yes | Yes | Yes |
| Tax-based Social Capital [Pre-period] * Year FEs | No | Yes | Yes |
| Province-Year FEs | No | No | Yes |
| Number of Voluntary Associations (Share) [Pre-Sample] * Year FEs | Yes | Yes | Yes |
| Sample Mean | 0.078 | 0.078 | 0.078 |
| Observations | 103,506 | 103,506 | 103,506 |

NOTE: The table reports estimates of the effect of CCDs on Tax-based Social Capital. The dependent variable is computed as the share of number of taxpayers allocating 5‰ of their annual income tax to voluntary associations over the total number of taxpayers observed in municipality $i$ in year $t$. The sample includes all years between 2009 and 2021. See Sections 2.1 and 3 for further details. In Panel A we present estimates based on a two-way FE model (see Equation (1)). In Panel B we present estimates based on Borusyak et al. (2024). The unit of observation is the municipality $i$ in a particular year $t$. *Municipality dissolved for Mafia* is an indicator variable that takes a value of 1 after the city council of a municipality has been dissolved for Mafia infiltration and 0 otherwise (see Section 2.2 and 3 for details). Column (2) includes a variable corresponding to the share allocating 5‰ of their annual income tax to voluntary associations in municipality $i$ in year 2006, *Tax-based Social Capital [Pre-Period]*$_{i,2006}$, interacted with year FEs. Column (3) includes province-year FEs. All columns include as additional control the number of registered voluntary associations (over the total number of taxpayers) observed in the municipality $i$ in year 2006, interacted with year dummies. Standard errors are clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.