

Shall we follow the money?

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In this paper, we assess the impact on the degree of electoral competition in Sicily of two anti-mafia policies, the dismissal of city councils for mafia infiltration and the seizure and reassignment of assets owned by members of the mafia. We use data on the results of the last three rounds of regional elections in Sicily, and show that: *i*) the dismissal of councils has no significant impact on the concentration of votes at constituency level; *ii*) the seizure and reassignment policy significantly reduces the concentration.

1. Introduction

In this paper, we analyse the impact on the electoral competition in Sicily of two anti-mafia policies: the dismissal of municipal councils for mafia infiltration and the seizure and reassignment of assets owned by the mafia¹.

We use data on the: *a*) votes received by candidates in the last three rounds of regional elections in Sicily; *b*) city councils dismissed on evidence of mafia infiltration; *c*) assets and property seized to the mafia and reassigned for public purposes.

Our underlying conjecture is that the strong connection between mafia and politics in Sicily is evidenced by the degree of vote concentration at the municipal level. Namely, the mafia is likely to select or support one or a few political candidates, so to have trustworthy middlemen when it is time to talk business.

The main results of this paper are that: *i*) the dismissal of city councils for mafia infiltration (hereafter DC policy) has no significant effect on the concentration of votes at municipality level; *ii*) the seizure and reassignment policy (SR policy) significantly reduces the concentration.

The intuition for our conclusions is that the best way to deal a serious blow to the mafia

¹ We intentionally use the lowercase for the word mafia.

is an intervention that poses a threat to its economic and financial interests. We argue that, when the mafia appears to be financially vulnerable, it loses legitimacy and economic credibility in the eyes of local communities (and resources to support its criminal activities). Therefore, in the paper, we give empirical support to the strategy pursued by the public prosecutor Giovanni Falcone, who strongly suggested that, in the fight against the mafia, we should “follow the money” (“*segui i soldi*”).

To our knowledge, this is the first empirical work that investigates the relationship between anti-mafia policies and electoral competition. The literature on anti-mafia interventions is rather sparse, but steadily growing in recent years. Daniele and Geys (2015) report that the DC policy has a positive effect on the education level of Italian politicians, but do not consider the SR policy. Esposito and Ricci (2015) analyse the SR policy in Italy to evaluate how public disvalue (that is, public value destruction) can be turned into public value. De Feo and De Luca (2017) focus on the relationship between Sicilian mafia and electoral results in Italy in the period 1946-1992. They show that the mafia supported the Christian Democratic Party in Sicily to strategically weaken the Communist Party, but do not consider policy interventions.

It is beyond the scope of this paper to provide an overview of the countless number of Sicilian politicians involved in illicit or criminal activities. Here, we only call the reader’s attention to the fact that two Sicilian governors have recently been sentenced for their ties to organized crime: Salvatore Cuffaro for mafia association in 2012, and Raffaele Lombardo for electoral fraud in 2017.

In the analysis, we make the implicit assumption that, even in the municipalities that experienced no DC or SR policies, the electoral outcomes can be manipulated by the activity of criminal or powerful interest groups. This activity is one of the distinctive features of the mafia culture in Sicily and part of its pervasive role in the whole territory². The data published in 2016 by the DIA³, and indicated by the shaded areas in figure 1, confirms the persistent presence of families and organized groups whose members (are suspected to) belong to the mafia in Sicily (sadly, the light areas mostly correspond to Mount Etna and Madonie and Nebrodi natural parks).

² See Gambetta (1996).

³ Direzione Investigativa Anti-mafia (Anti-mafia Investigation Department).

<http://direzioneinvestigativaantimafia.interno.gov.it/semestrali/sem/2016/2sem2016.pdf>

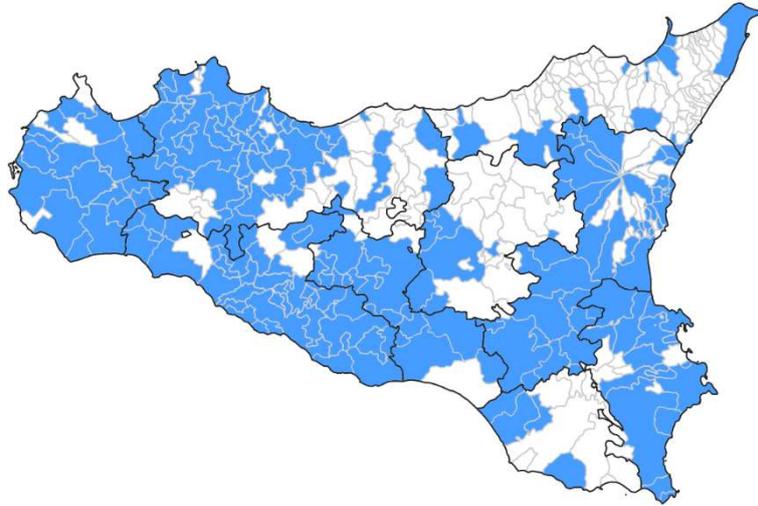


Figure 1.
Territorial distribution of the mafia (families and organized groups) in Sicily.
Source: DIA (2016).

Before presenting the results, we give a very brief description of the policies as regulated by the Italian law.

DC policy

For the Act 221/1991, municipal councils can be dismissed for mafia infiltration, that is when there is evidence of the presence of local bureaucrats who are directly affiliated to or indirectly influenced by criminal organizations.

The dismissal procedure starts from the police investigation and the appointment of a commission, under the discretionary authority of the Prefect⁴. After deliberation of the Italian Council of Ministers, the Ministry of Internal Affairs orders the dismissal of the local council and all elected public officials. The council is then governed by an extraordinary commission appointed by the government.

By the end of 2017, 290 municipal councils were dismissed in Italy, 70 in Sicily.

⁴ In Italy, the Prefect is the formal representative of a district (*provincia*), and is appointed by the President of the Republic.

SR policy

The Act 646/1982 and Decree 159/2011 provide for the seizure and reassignment of assets owned by members of criminal organizations.

The seizure is ordered by the judicial authority (courts and public prosecutors), when there is sufficient evidence that the assets are the result of illegal activities. The assets confiscated become the property of the State and can be reassigned for public purposes. By the end of 2017, 23,610 goods were seized and 18,150 reassigned in Italy (9,142 and 5,978 in Sicily).

It is important to stress that the DC policy is implemented by (political) bodies accountable to the Italian government (the executive power), whilst the SR policy by (non-political) courts and public prosecutors (the judiciary power). Note that, in Italy, the judicial system is politically independent of the central government.

Therefore, the two policies differ in their very nature. The DC policy is essentially political, while the SC policy is economic. Besides, unlike the SR, the implementation of DC is highly discretionary.

2. Empirical framework and results

To estimate the impact of the anti-mafia policies on electoral results, we use data on the votes received by all candidates in the last three election rounds (2008, 2012 and 2017) of the Sicilian parliament, for each of the 390 voting districts (source: Sicilian Election Register); city councils dismissed for mafia infiltration in each Sicilian district (source: Italian Ministry for Internal Affairs); assets and property seized to members of criminal organizations in Sicily, and reassigned for public purpose (source: ANBSC⁵).

In Sicily, 62 of the 70 members of the parliament are elected through a proportional representation system⁶. There are 9 constituencies corresponding to the 9 Sicilian provinces and 390 municipalities. For each constituency, the share of members elected is proportional to the number of inhabitants in each municipality.

⁵ National agency for the administration and destination of seized assets.

⁶ 62 members are elected through a proportional system on provincial basis; 7 members, including the president (governor), are elected with a regional list; 1 member is the most voted non-elected president candidate.

As in Alfano and Baraldi (2015), we use the Herfindahl index (HI) to measure the concentration of votes. We indicate with v_{imt} the share of votes received by candidate i , in the municipality m , and in the election round held at time t . Hence, the HI for municipality m at time t can be written as

$$HI_{mt} = \sum_{i=1}^N v_{imt}^2. \quad (1)$$

Since the share of votes depends on the number of candidates in each municipality, we need to correct the HI to reflect the dimension of the cross-section and time-series. Thus, we use the following normalised Herfindahl index (NHI)⁷,

$$NHI_{mt} = \frac{HI_{mt} - \frac{1}{n_{mt}^j}}{1 - \frac{1}{n_{mt}^j}}, \quad (2)$$

where n_{mt}^j denotes the number of candidates in the constituency j , to which municipality m belongs to.

To test the effects of the policies on NHI , we introduce two binary variables, DC and SR . The variable DC (SR) is equal to 1 if at least one DC (SR) policy has been implemented in the years before the election round at time t , and 0 otherwise.

We estimate the following baseline ordinary least squares regression,

$$NHI_{mt} = \alpha + \beta DC_{mt} + \delta SR_{mt} + \varepsilon_{mt}. \quad (3)$$

The analysis adopts a natural experiment approach. Indeed, we consider the presence of the mafia as a social disease measurable in terms of NHI . Both DC and SR are regarded as treatments. Accordingly, a clearly defined exposure to DC and SR separates a sub-

⁷ The index ranges from 0.0114 to 0.724, with a mean of 0.0936 and a standard deviation of 0.0712.

population of Sicilian municipalities and, thus, we test to what extent changes in *NHI* may be attributed to the exposure.

Table 1 shows the estimation results. We report: in (1), the simple regression; in (2), the specification with provincial dummies and time dummies to control for the effect of the year in which the election is held (this controls also for the potential effects of the reduction of the members of the Sicilian parliament from 90 to 70); in (3), the specification with an interaction term considering the combined effect of both policies.

The analysis shows that *SR* has a statistically significant effect on electoral competition, that is it reduces the concentration of votes in the municipality in which assets are seized to members of criminal organizations and reassigned for public purposes. This result is also robust to the inclusion of municipality fixed effects, specification (4), and when different regressions are run for each election round, specifications from (5) to (7).

In contrast, the effect of *DC* on vote concentration is not statistically significant across all specifications, except for specification (5), in which the effect is even positive.

Table 1. Estimation results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VARIABLES	<i>NHI</i>	<i>NHI</i>	<i>NHI</i>	<i>NHI</i>	<i>NHI</i> ₂₀₀₈	<i>NHI</i> ₂₀₁₂	<i>NHI</i> ₂₀₁₇
<i>DC</i>	-0.0026 (0.0057)	0.0044 (0.0041)	0.0129 (0.0197)	-0.0025 (0.0055)	0.0266** (0.0123)	-0.0120 (0.0094)	-0.0013 (0.0112)
<i>SR</i>	-0.0262*** (0.0040)	-0.0220*** (0.0062)	-0.0210** (0.0074)	-0.0226** (0.0101)	-0.0260*** (0.0083)	-0.0159** (0.0065)	-0.0208** (0.0081)
<i>DC*SR</i>			-0.0113 (0.0228)				
Constant	0.1043*** (0.0031)	0.0928*** (0.0049)	0.0922*** (0.0054)	0.1007*** (0.0041)	0.0949*** (0.0112)	0.0950*** (0.0091)	0.0942*** (0.0117)
Time dummies	NO	YES	YES	YES	NO	NO	NO
Provincial dummies	NO	YES	YES	NO	YES	YES	YES
Municipal fixed effects	NO	NO	NO	YES	NO	NO	NO
Observations	1,170	1,170	1,170	1,170	390	390	390
R-squared	0.0338	0.1152	0.1156	0.0344	0.2425	0.1010	0.1151

Notes: ***, **, and * denote significance at 1%, 5% and 10%. Robust standard errors in parentheses.

3. Conclusion

Our results provide empirical support to the argument that the mafia is expected to back down in Sicily only when its economic and patrimonial structure is undermined.

It should be emphasised that this paper, for the first time, provides an empirical assessment of the impact of anti-mafia policies on electoral competition. Admittedly, here, we are not able to ascertain to what extent the effect of a lower vote concentration depends, for example, on the economic nature of the SR policy, or on the less discretionary power assigned to the judiciary system. However, the results about the SR policy is a promising starting point for the analysis on the effectiveness of the policies at a more disaggregated level including the consideration of different allocations (destinations) after a seizure.

References

Alfano M. R., Baraldi A. L. (2015). Is there an optimal level of political competition in terms of economic growth? Evidence from Italy.” *European Journal of Law and Economics*, 39, 263-285.

Daniele G., Geys B. (2015). Organised crime, institutions and political quality: Empirical evidence from Italian municipalities. *Economic Journal*, 125, 233-255.

De Feo G., De Luca G. (2017). Mafia in the ballot box. *American Economic Journal: Economic Policy*, 9, 134-167.

Esposito P., Ricci P. (2015). How to turn public (dis)value into new public value? Evidence from Italy. *Public Money & Management*, 35, 227-231.

Gambetta D. (1996). *The Sicilian mafia: the business of private protection*. Harvard University Press.