Transparency in the use of assets confiscated from mafia organizations

Marco Bisogno
Department of Management & Innovation Systems
University of Salerno (Italy)

Beatriz Cuadrado-Ballesteros
Department of Administration and Business Economics
Multidisciplinary Institute for Enterprise
University of Salamanca (Spain)

Francesca Citro
Department of Management & Innovation Systems
University of Salerno (Italy)

Giovanni Vaia
Department of Business Economics
Ca' Foscari University of Venice, Italy

Abstract

Several remedies can be adopted in the fight against organized crime and mafias. One of the foremost effective is the confiscation of assets suspected of belonging to them. After confiscation, assets can be used to provide services to citizens, frequently thanks to the support of non-profit organizations. With a focus on Italy, this study investigates the transparency of the confiscation process and the factors that can explain why local governments provide (or do not provide) information regarding confiscated assets.

Keywords: Transparency; confiscated assets; mafia; local governments.

Introduction

To fight against organized crime (OC) and mafia organizations, several remedies could be adopted, one of which is the confiscation of assets that appear to be the result of criminal activities. Confiscation processes consist of different steps (EU SOCTA, 2021), the main aim of which is to transfer the value of confiscated assets to local communities noted as social reuse—for instance, a villa belonging to a *mafioso* may be converted into a playground or a kindergarten. It is acknowledged that procedures regulating the disposal of confiscated assets should be transparent, making citizens eligible for application to these assets so as to facilitate their adequate destination to benefit local communities (Dordevic, 2022; Giannone, 2022).

This study investigates transparency in the use of assets confiscated from OC and the mafia and examines factors that can explain why local governments (LGs) provide (or do not provide) information regarding confiscated assets. Although transparency is required in all steps of the confiscation process, this study focuses principally on the final one, which leads to social reuse. In this context, transparency implies an understanding of how and to what extent these assets are utilized to benefit the local community, relying on the assumption that local communities and citizens should have access to public data on confiscated assets to map them and make them available for civic goals.

The paper aims to contribute to both transparency and mafia research. In the latter case, previous studies privileged legal or sociological perspectives, devoting less attention to transparency related to the use of assets after the confiscation (Holmes, 2016).

This study refers to secondary data from different sources. Two disclosure indexes represented the dependent variables, while independent variables captured the socio-economic and political characteristics of the LGs included in the sample, relying on a refined version of the legitimacy theory (Deegan, 2019).

The findings reveal that the global level of disclosure is rather low, so the perspective of the data provider is still considered more relevant than that of the data users. The results also document that LGs providing more public services to citizens tend to better disclose information related to confiscated assets. Furthermore, the higher the concentration of political power, the lower the disclosure level.

This paper is structured as follows. Section 2 provides a literature review and theoretical framework, clarifying the research hypotheses. Section 3 illustrates the research methodology, while Section 4 presents the findings, which are discussed in Section 5, along with conclusive remarks.

Background and research hypotheses

Social reuse of confiscated assets

Criminal activities affect many sectors of society negatively, and implementing effective remedies is crucial (Boucht, 2019). One of the main solutions adopted in various countries is the confiscation of assets originating from criminal activities (EU, 2020; Montaldo, 2015).

In the European context, the directive 2014/42/EU provides the background for member countries related to the execution of confiscation orders, through which public-sector entities ascribe confiscated assets for public use (Dordevic, 2022). According to the EU Commission (EU, 2020), 19 member countries have implemented national legislation on confiscation and social reuse. In this vein, confiscation is not simply depriving a criminal organization of its assets; it also allows these assets to be used for social purposes, having both an economic and a symbolic value (Ofria and David, 2014; European Parliament Resolution 2010/2309(INI). Indeed, criminal organizations affect not only specific victims who are directly harmed but also damage local communities and society as a whole. Accordingly, it is debated whether and to what extent fair compensation should be recognized for both the direct victims of OC/mafias and local communities *per se* (Vanfraechem et al., 2014).

One can refer to two approaches when discussing the social reuse of confiscated assets. The first approach considers the proceeds of crime as public resources that can be invested in *ad hoc* projects (e.g., crime prevention or support for victims of crime) or devoted—frequently mixed with other public funds—to charitable purposes. This approach, however, does not engage the local community. The second approach refers to a direct form of social reuse, which involves local communities and civil-society organizations. More specifically, it consists of assigning confiscated assets to LGs, which, in turn, can transfer them to local non-profit organizations or social cooperatives based on the community's needs. The involvement of civil-society organizations and mass media as well is considered pivotal (Baruzzo et al., 2021; Bisogno, 2023), as it allows for devolving confiscated assets into local social, cultural, or economic activities. Citizens can see a tangible link between assets that were confiscated because of their illegal nature and their reuse to meet local needs. Civil society can then participate actively in the process, which indirectly promotes the "social fight" against OC/mafias (Vettori and Misoski, 2019). It has been observed that "without citizens' deep awareness, mafia evil cannot be eradicated" (Baruzzo et al., 2021). Accordingly, being transparent in the different steps of the confiscation increases the eligibility of citizens for access to these assets, facilitating the destination to benefit local communities (Giannone, 2022). However, despite its relevance, studies are lacking in investigating transparency regarding the disposal of confiscated assets.

Transparency

Transparency has been defined as referring to access to government information about policy intentions, formulations, and implementations (Piotrowski and Van Ryzin, 2007), allowing stakeholders to evaluate and monitor the performance of organizations (Grimmelikhuijsen, 2010). Accordingly, 'publicity'—namely the mere diffusion of information—is not the critical issue, but it is rather to ensure the citizens' right to know, allowing them to monitor the activities carried out by a public-sector entity (Carloni, 2022). In several contexts, the legislation regarding the confiscation of assets and their social reuse adopts this approach (Baruzzo et al., 2021); for instance, the Italian decree 33/2013 states that citizens have the right to freely access information without restrictions and utilize it. Furthermore, if a public-sector entity does not provide information, citizens have the right to its disclosures (the so-called 'civic monitoring'). In this respect, transparency entails a focus on relationships with stakeholders (Lindstedt and Naurin, 2010), according to the so-called outward transparency (people outside the organization can observe what is going on inside it; Heald, 2006).

Several studies have investigated the factors that could affect transparency (Cucciniello et al., 2017), especially focusing on the impact of transparency on accountability and participation (Michener, 2019; Cuadrado-Ballesteros et al., 2023), devoting less attention to the relationship between data providers and data users. In this perspective, scholars (Tolbert and Mossberger 2006; Wang and Niu 2020) claim that effective transparency should essentially depend on the content and quality of the disclosed information.

The content of disclosed information is usually defined by law; in the case investigated here, this information regards all the characteristics of the confiscated assets, including the type, location, size, time of disposal, type of use, the organizations to which the assets have been assigned, and so on. Obviously, information related to the social use of confiscated assets is especially relevant.

Defining the quality of the data is more difficult, with the most basic feature being the format. For example, if data is released in an unmanageable format, most users find it relatively complex to comprehend and use the data meaningfully in a day-to-day decision-making context (Sivarajah et al., 2015). To remove these barriers, several initiatives have been carried out in the European context. For example, the European Directive on the reuse of public-sector information has established a common legislative framework to regulate how public-sector entities should make their information available for reuse. This means considering the perspective of users (citizens, non-profit organizations, the media, and stakeholders in general) rather than that of governments. Accordingly, engagement is a key issue in making dialogue between governments and users possible (Reggi and Dawes, 2016).

Research hypotheses

The disclosure of adequate information regarding confiscated assets and their social use facilitates the destination of these assets to benefit local communities (Giannone, 2022; Ofria and David, 2014). Scholars have largely used legitimacy theory to investigate disclosure, being referred to its classical assumption that considers organizations as legitimate if they comply with social expectations, non-legitimate otherwise. Following Deegan (2019), this study avoids this dichotomic view and adopts a broader and richer perspective to explain the behavior of organizations by taking into account contextual factors. Among others, a critical factor to consider is the role played by the press (and social media). Blanc et al. (2017) documented that the level of press freedom is an explanatory factor for anti-corruption disclosures. Similarly, Carloni (2022: 217-218) emphasized the crucial and mediating role of media to make transparency effective. Accordingly, it could be hypothesized that external scrutiny, such as that carried out by influential independent organizations, may affect the level of disclosure, being comparable to the pressure wielded by the media. It is worth noting that in the Italian context, citizens or other actors, such as non-profit organizations, are entitled to contact LGs when they do not provide mandatory information and ask them to comply with laws and regulations (Decree 33/2013). This is called "civic monitoring," and it is hypothesized here that it stimulates LGs to provide more complete and accurate information, as in the case of media pressure. Therefore, the following hypothesis was formulated:

HP1: The level of disclosure concerning confiscated assets increases under the pressure of "civic monitoring."

Since LGs' main goal consists of providing adequate services to citizens, a second factor is represented by the type of services provided by each LG, or more specifically, how easy it is for citizens to access essential services and infrastructures, such as schools, hospitals, and railway stations. Indeed, Italian municipalities are ranked according to the presence or absence of such services and infrastructures in their territories. In this respect, Adler et al. (2018) evidenced that social ratings attributed to an organization can have a central role in explaining or predicting the legitimization of disclosure. Bauhr and Carlitz (2021) documented a positive association between transparency and the quality of education and health services, while Yang (2021) found that fiscal transparency contributed to the quality of public services in the Chinese coastal provinces and cities. Therefore, the following was hypothesized:

HP2: The level of disclosure concerning confiscated assets is positively associated with the services and public infrastructures provided by the LG.

A further factor that could explain an LG's level of disclosure is power concentration. Previous studies have documented that political competition and power-sharing positively affect the level of transparency (Cuadrado-Ballesteros, 2014; Berliner and Erlich, 2015). Legitimacy theory scholars

(Muttakin et al., 2018) have rejected the classic pluralist notion of society, which implies that multiple stakeholders potentially have the same influence on policymaking (i.e., power is widely distributed among different categories of stakeholders). In contrast, Muttakin et al. (2018) argued that power asymmetries abound, proposing a neo-pluralist view of society and the concentration of power instead (they used the expression "political connectiveness"). Their findings showed that the stronger the political connections of an organization, the lower the pressure to use disclosure as a legitimation strategy because of reduced potential pressure from other actors. Associating this conceptualization with LGs would mean that if the political party or coalition governing an LG could count on a high number of councilors (i.e., they reached a high percentage of citizens' votes), the power would be more concentrated, and then the pressure from other political actors would be lower. Accordingly, the following hypothesis was proposed:

HP3: The level of disclosure concerning confiscated assets is negatively influenced by the political concentration of the LG.

Research Methodology

Context

This study focuses on the Italian context, where OC and mafia organizations have a long history, especially in certain regions (i.e., Campania, Calabria, Apulia, and Sicily). The Italian Parliament has passed several laws to fight against them. The so-called Rognoni-La Torre law, passed in 1992, introduced a new crime typology of criminal mafia-type associations, adding Article 416-bis to the Italian Criminal Code.

The murders of Giovanni Falcone and Paolo Borsellino, two judges active in the fight against the mafia, evidenced that mafia organizations pose a threat to democracy and its principles, which concern everyone. One of the most relevant outcomes of this social movement was a national petition, signed by more than one million Italian people (Ofria and David, 2014), to the Italian Parliament to pass a law that enhances confiscation procedures on assets belonging to the *Mafiosi* while facilitating their social reuse. Libera—a network consisting of non-profit organizations active in the fight against corruption and the mafia since 1994—promoted and supported such a request, and a new law (no. 109) was passed in 1996. The law allows for precautionary seizure, in anticipation of the judicial trial, to settle any criminal responsibilities of those being accused. Therefore, the seizure of assets can occur long before the conclusion of financial and asset-related legal inquiries that could take years to complete. In 2010, a national agency ("Agenzia Nazionale per l'Amministrazione e la destinazione dei beni sequestrati e confiscati alla criminalità," henceforth the ANBSC) was created to assist confiscation procedures from the very beginning. Indeed, in the past, the court was in charge of

confiscated assets until the seizure became definitive, when the assets were assigned to a central government agency and then to an LG. A new anti-mafia code was passed in 2011; the most recent amendments, approved in November 2021, aimed at improving the efficiency of the assignment procedures. Accordingly, the ANBSC oversaw the process from the precautional confiscation, assisting the court in the different phases of the procedure (Ofria and David, 2014; Paoli, 2014). Confiscated assets are now funneled to the ANBSC, after which they are assigned to LGs, which in turn can transfer them to non-profit organizations or social cooperatives, thereby benefiting local communities. The social reuse of individual assets has been proven successful in most cases, facilitated partly through close collaboration with non-profit organizations (Bisogno, 2023).

Methodology

This study used official data collected from two reports issued by Libera in 2021 and 2022 ("RimanDati": https://www.libera.it/documenti/schede/rimandati_3_1.pdf; and "RimanDati" 2nd edition: https://www.libera.it/documenti/schede/rimandati_2_web_1.pdf), the website of two central government agencies ("Openregio" https://openregio.anbsc.it/statistiche, and "Territorial Cohesion Agency", https://www.agenziacoesione.gov.it/strategia-nazionale-aree-interne/la-selezione-delle-aree/), and other sources (e.g., https://www.tuttitalia.it and the IN.TWIG website).

The analysis was divided into two parts. The first one concerned all the Italian LGs to which confiscated assets were assigned. The aim was to delineate the state of the art by examining the level of transparency of these LGs and the extent to which their behavior complied with law requirements related to confiscated asset transparency. The analysis covered two years: 2021 and 2022.

The second part focused on five Italian regions (Calabria, Campania, Liguria, Piemonte, and Toscana). The aim was to empirically test the study's hypotheses. As already observed, Calabria and Campania are two southern regions where the presence of mafia organizations ('Ndrangheta and Camorra) dates back to the nineteenth century, and the number of confiscated assets is high (see Table 2). Liguria, Piemonte, and Toscana were selected because they belong to other geographical areas (the north and center of Italy) where the number of confiscated assets is increasing. The total number of LGs included in the analysis, which referred to 2022 data, was 366. For each LG, two disclosure indexes were calculated. The first index was calculated by considering the information provided by each LG belonging to these regions, compared with information that they should have provided according to the law. If an LG did not provide all the required information, it was asked to do so by the staff of Libera ("civic monitoring"). Accordingly, a second disclosure index was calculated to assess whether and to what extent the level of transparency had improved.

To test our hypotheses, the following model was implemented:

$$\boldsymbol{DI_{j_i}} = \beta_0 + \alpha\, SNAI_i + \beta_1\, Strenght_i + \beta_2 Incomepc_i + \beta_3 Density_i + \beta_4 Assets_i + \varepsilon_i \qquad \textbf{(1)}$$

In model 1, α and β are the parameters to be estimated, ε is the error term, subindex *j* refers to the round of analysis (i.e., before and after the civic monitoring), and subindex *i* refers to each LG. More specifically, the variable called $\mathbf{DI_j}$ refers to the disclosure index calculated before (DI_1) and after (DI_2) the civic monitoring by considering actual disclosure to total possible disclosure. Data was extracted from the above-mentioned Libera's reports. Table 1 shows the items to be informed of, as required by the law. Concretely, each item was coded as 1 if information had been disclosed by the LG, and 0 otherwise. The disclosure indexes, based on unweighted items to avoid subjectivity (Cooke, 1989), were calculated by summing the 10 items that were coded as 0–1, so DI took values between 0 and 10.

Insert Table 1

The *SNAI* variable refers to the services and infrastructures provided by each LG (data was collected from the "Territorial Cohesion Agency" website and Libera's reports). As already noted, Italian LGs are ranked in accordance with their ability to provide certain essential services and infrastructures (i.e., schools, hospitals, and railway stations). Those LGs that can offer these services are classified in the best group (Type A); other municipalities that do not offer these services are classified according to their distance from those in the best group. Accordingly, a score was assigned to each LG as follows:

- Type A: Score = 5 (LGs can offer upper secondary education, at least one hospital with a Department of Emergency and Urgency, and a railway station providing regional/metropolitan and short-, medium-, and long-distance services).
- Type B: Score = 4 (distance from type A LGs is < 20 minutes).
- Type C: Score = 3 (distance from type A LGs is between 20 and 40 minutes).
- Type D: Score = 2 (distance from type A LGs is between 40 and 75 minutes).
- Type E: Score = 1 (distance from type A LGs is > 75 minutes).

The variable *Strength* refers to the level of concentration/fragmentation of the LG, and it was calculated as the ratio between the number of councilors that belong to the party/ies in power (alone or in coalition) and the total number of councilors that make up the government. Data was hand-collected from the website https://www.tuttitalia.it, which included information from several official sources (mainly the website of the Ministry of the Interior).

To express the economic characteristics of the LGs included in the sample, the variable of income per capita was used (*Incomepc*). Data was extracted from the IN.TWIG website (https://www.intwig.it/reddito-pro-capite-in-italia-2018-la-classifica-dei-comuni-italiani/). The size

of the municipality was represented by population density (*Density*), which was hand collected from the website https://www.tuttitalia.it. Finally, the variable *Assets* expresses the number of confiscated assets assigned to each LG. Data was collected from the "Openregio" website and Libera's reports.

Model (1) was estimated for both rounds of the analysis (i.e., indexes calculated before and after civic monitoring) by using the Logit and Tobit models. First, Model (1) was considered an ordered logistic regression because the dependent variables (DI_1 and DI_2) take different values to represent the degree of disclosing information about confiscated assets, and these values have a meaningful sequential order. Concretely, if a value is higher than the previous one, this means that the degree of disclosure is higher. This is similar to a logistic regression where the dependent variable has two outcomes (0–1), but, in an ordered logistic model, the dependent variable has more than two outcomes (0–10 in this case). To estimate Model (1), each value of DIj generates a continuous valuation included in a latent variable, called DI_j*. This variable has a linear form, and it depends on the same variable as DIj:

$$\boldsymbol{DI}_{\boldsymbol{j_i}}^{*} = \beta_0 + \alpha\, SNAI_i + \beta_1\, Strenght_i + \beta_2 Incomepc_i + \beta_3 Density_i + \beta_4 Assets_i + \varepsilon_i$$

$$\text{where } DI_j^{*} = \begin{cases} 0\ if\ DI_j^{*} \le cut_1 \\ 1\ if\ cut_1 < DI_j^{*} < cut_2 \\ 2\ if\ cut_2 < DI_j^{*} < cut_3 \\ \dots \\ m\ if\ cut_i < DI_j^{*} < cut_n \end{cases}$$

The model is based on the principle that the only effect of combining adjoining categories in ordered categorical regression problems should be a loss of efficiency in estimating the regression parameters (McCullagh, 1980).

Second, Model (1) was also estimated by using the Tobit estimator, which fits a linear regression for a censored outcome. It is usually used when the dependent variable is an index, considering that an index is a censored variable because it is observed only with a certain range of values. In this case, DI_j takes values between 0 (lower limit) and 10 (upper limit). Following Cong (2000), the observed outcome for observation *i* is defined as follows:

$$DI_j^{*} = \begin{cases} DI_j if\ 0 < DI_j < 10 \\ 0\ if\ DI_j \le 0 \\ 10\ if\ DI_j \ge 10 \end{cases}$$

Findings

Descriptive analysis (Part I)

As observed, the first part of the analysis concerned all Italian LGs to which confiscated assets were assigned and referred to the years 2021 and 2022.

Table 2 illustrates how many LGs provided information regarding confiscated assets.

Insert Table 2

The highest number of confiscated assets was found in the southern regions, where mafia organizations are historically located, and one of the richest Italian regions, namely Lombardia. The table also illustrates that about 60% of Italian LGs did not provide complete information related to confiscated assets. This occurred in all regions (with some exceptions), meaning that, on average, the degree of transparency was below expectations, and Italian LGs did not comply with law requirements. The north of Italy showed the worst situation, with Piemonte and Liguria (two regions selected for the following step of the analysis) showing the highest percentage of LGs that did not provide the required information.

Table 3 provides further data.

Insert Table 3

Panel A refers to LG's size: small and medium LGs faced the greatest difficulties in providing adequate information. Panel B refers to the content of the information, illustrating how many LGs uploaded information to their websites concerning the type of use, location, physical characteristics, and size of confiscated assets. This information represents a minimum set of data to allow citizens to monitor the situation and conditions of all assets located in their territory. The information collected mainly referred to the location and physical characteristics of the confiscated assets; the percentage of LGs providing information regarding use was lower.

Regarding the quality of data (Panel C), as observed, the main issue to consider was the open/closed format utilized while providing data. The bulk of LGs preferred using closed formats (something other than PDF, or scanned PDF as an image) or a PDF, making it difficult to elaborate further on the information.

Descriptive analysis (Part II)

The second part of the analysis focused on a sub-sample consisting of five Italian regions, namely Calabria, Campania, Liguria, Piemonte, and Toscana. Calabria and Campania were selected because of the traditional presence of two well-known mafia organizations ('Ndrangheta and Camorra). Liguria, Toscana, and Piemonte were selected for several reasons: they belong to other geographical

areas (north and center of Italy); the number of confiscated assets here is increasing; and the percentage of LGs that did not provide adequate information is high (especially in Piemonte and Liguria), compared to data related to other regions of the same geographical area.

The first disclosure index was calculated by scrutinizing the websites of LGs belonging to these regions to check whether the information that was expected to be found was actually provided. In the case of a lack of information, the staff of Libera sent a request to these LGs, asking them to provide it ("civic monitoring"). Then, Libera's staff scrutinized the same websites again to check for the availability of information. Accordingly, based on this data, we calculated a second disclosure index.

Table 4 illustrates the descriptive statistics and correlation analysis, while Figure 1 illustrates the distribution of the indexes by region.

Insert Table 4 and Figure 1

The mean value of the disclosure index increased, meaning that civic monitoring positively affected the content of information provided by LGs included in the sample. This result may support our first hypothesis, suggesting that civic monitoring stimulates LGs to provide more complete and accurate information. This is consistent with the findings of previous studies (Blanc et al., 2017) that documented the positive effects of press freedom on anti-corruption disclosures.

Table 4 also illustrates the bivariate correlations among variables included in Model 1, documenting that there were no multicollinearity issues, and all the variables could be entered into the model.

Empirical analysis

Table 5 illustrates the empirical results of the ordered logistic model. The first equation includes DI_1 as the dependent variable, and the second equation includes DI_2. In both cases, *SNAI* positively impacted the dependent variables, and both coefficients were statistically relevant. This result shows a positive relationship between the level of disclosure concerning confiscated assets and the ability to provide certain essential services and infrastructures, suggesting that LGs with better public infrastructures and services tend to be more transparent and disclose more information concerning confiscated assets, as proposed by the second hypothesis. Our findings are consistent with previous studies (Bauhr and Carlitz, 2021; Yang, 2021), which illustrated a positive association between transparency and the quality of public services, such as education and health.

Regarding the power concentration of the government, *Strength* negatively impacted both dependent variables, suggesting that confiscated assets' disclosures tend to be lower in municipalities with a higher level of political concentration in government. This is in line with the third hypothesis proposed. Accordingly, it can be claimed that political competition and power-sharing positively

affect the level of transparency, which is consistent with other studies (Cuadrado-Ballesteros, 2014; Berliner and Erlich, 2015).

Regarding the control variables, findings show that the level of disclosure regarding confiscated assets was higher in municipalities with a higher income per capita (Benito et al., 2021). Density was statistically relevant only in the first equation, having a positive coefficient, indicating that the disclosure level was higher in more densely populated municipalities. This is consistent with the findings of previous studies that showed a positive link between population and the achievement of transparency in LGs (Guillamón et al., 2011; Sol, 2013; Homsy and Warner, 2015; Ott et al., 2018). Finally, the number of confiscated assets was positively associated with the level of disclosure. This means that LGs managing a larger number of confiscated assets tend to disclose more information about them.

Table 5 also shows the results of both equations using the Tobit estimator. In general, the results are consistent with the proposed hypotheses and are similar to those of previous studies.

Insert Table 5

Discussion and conclusions

This study investigated the level of transparency related to assets confiscated from mafia organizations by focusing on the Italian context. The analysis was developed in two parts. The first delineated the state of the art by considering all Italian LGs to which confiscated assets were assigned. The results show that the disclosure level is rather low, as many LGs did not provide the information required by the law and tended to use formats that did not facilitate further elaboration. Therefore, the perspective of the data provider is still considered more relevant than that of external data users. Consequently, there is not an adequate engagement of citizens or a proper dialogue with LGs (Reggi and Dawes, 2016), which could facilitate the adequate social reuse of confiscated assets.

The second part of the study concentrated on five regions to investigate the association between disclosure indexes and several factors related to the services and infrastructures provided by LGs, political concentration, and various control variables (i.e., income per capita, population density, and the number of confiscated assets assigned to each LG). The results evidenced that such a relationship exists, documenting that both the socioeconomic and political characteristics of an LG play a role in explaining the disclosure level. Municipalities providing more services to citizens tended to be better at disclosing information related to confiscated assets they received from the central government, in accordance with previous studies investigating the association between transparency and public services (Bauhr and Carlitz, 2021; Yang, 2021). The external pressures due to civic monitoring also affected the level of disclosure making transparency effective (Carloni, 2022), which is consistent

with other studies documenting the effect of press freedom on anti-corruption disclosures (Blanc et al., 2017). Furthermore, political concentration proved to be a relevant factor, as the higher the concentration of political power, the lower the disclosure level (Cuadrado-Ballesteros, 2014; Berliner and Erlich, 2015), according to which the concentration of power is an explanatory factor of the search for legitimacy (Muttakin et al., 2018).

The findings that have emerged from this study could be enriched through future research. The analysis could be complemented by investigating all Italian regions, and secondary data could be combined with additional data collected directly on the field.

Although the context being examined is a single country, findings could be of interest to other contexts. As already observed, 19 European countries have implemented specific legislation for the confiscation of assets from OC/mafia organizations and their social reuse. Therefore—taking into account the peculiarities of each context, including potential differences in the structure of OC/mafia organizations—they are encouraged to take into consideration the central role played by LGs in the reuse of confiscated assets, as well as the importance of external stakeholders, such as non-profit organizations (Bisogno, 2023). Bearing in mind the relevance of the size of LGs, European central/regional governments are also motivated in supporting small municipalities in this process while considering the socioeconomic characteristics of LGs.

From a theoretical perspective, this study rejected the classical assumption that organizations are legitimate if they comply with social expectations and are non-legitimate otherwise (Deegan, 2019), and adopted a richer view, adhering to the call for a refined approach to the legitimacy theory to explain disclosure indexes (Deegan, 2019). Our findings contribute to transparency studies and the literature on mafia organizations by emphasizing the importance of allowing citizens to access information on confiscated assets and social reuse (Baruzzo et al., 2021). External pressures of these actors may be a relevant factor in the "social fight" against the mafia (Montaldo, 2015).

References

Baruzzo, G, Giannone, T and Pasinato, G (2021), The social re-use of confiscated assets in Europe. A first mapping (available at: https://www.confiscatibene.it/sites/default/files/blog-upload/The%20social%20re-use%20of%20confiscated%20assets%20in%20Europe_a%20first%20mapping.pdf; accessed: 21/08/2023).

Bauhr, M, and Carlitz, R (2021) When does transparency improve public services? Street-level discretion, information, and targeting. *Public Administration*, 99(3), 500-516.

Benito, B, Guillamón MD and Ríos AM (2021) Transparency and efficient management in local governments. *Cities*, 115, 103234.

Berliner, D and Erlich, A (2015) Competing for transparency: political competition and institutional reform in Mexican states. *American Political Science Review*, 109(1), 110-128.

Bisogno, M (2023) Transition management strategies of confiscated mafia-type firms: the role of public administrations and nonprofit organizations. *Journal of Public Budgeting, Accounting & Financial Management*, 35(6), 121-139.

Blanc, R, Islam, MA, Patten, D and Branco, M (2017) Corporate anti-corruption disclosure: an examination of the impact of media exposure and country-specific press freedom, *Accounting, Auditing and Accountability Journal*, 30(8): 1746-1770.

Boucht, J (2019) Asset confiscation in Europe – past, present, and future changes. *Journal of Financial Crime*, 26(2): 526-548.

Carloni, E (2022), *Il paradigma trasparenza. Amministrazioni, informazione, democrazia*. Il Mulino, Bologna.

Cooke, TE (1989) Disclosure in the corporate annual reports of Swedish companies, *Accounting and Business Research*, 19(74): 113-124.

Cuadrado-Ballesteros, B (2014). The impact of functional decentralization and externalization on local government transparency. *Government Information Quarterly*, 31(2), 265-277.

Cuadrado-Ballesteros, B, Ríos, AM and Guillamón, MD (2023) Transparency in public administrations: a structured literature review. *Journal of Public Budgeting, Accounting & Financial Management.* https://doi.org/10.1108/JPBAFM-10-2022-0158

Cucciniello, M. Porumbescu, GA and Grimmelikhuijsen, S (2017) 25 Years of Transparency Research: Evidence and Future Directions. *Public Administration Review*, 771: 32–44.

Deegan, CM (2019) Legitimacy theory: Despite its enduring popularity and contribution, time is right for a necessary makeover. *Accounting, Auditing and Accountability Journal*, 32(8): 2307-2329.

Dordević, S (2022) Social reuse of confiscated assets, (available at: https://globalinitiative.net/wp-content/uploads/2022/02/GMFA-Social-Reuse-of-Confiscated-Assets-Eng.pdf; accessed: 10/09/2022)

EU SOCTA (2021) Serious and Organised Crime Threat Assessment. A Corrupting Influence: The Infiltration and Undermining of Europe's Economy and Society by Organised Crime (available at: https://www.europol.europa.eu/cms/sites/default/files/documents/socta2021_1.pdf; accessed: 15/9/2022).

European Parliament resolution of 25 October 2011 on organised crime in the European Union (2010/2309(INI)) (available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011IP0459&from=HR; accessed: 18.10.2022)

Giannone, T (2022), I beni confiscati alle mafie e ai corrotti: quando la partecipazione democratica si attiva con la trasparenza, in Libera, Rimandati 2022 (pp. 7-9) (available at: https://www.libera.it/documenti/schede/rimandati_2_web_1.pdf; accessed: 18.10.2022).

Grimmelikhuijsen, SG (2010) Transparency of Public Decision-Making: Towards Trust in Local Government? *Policy & Internet*, 2(1): 5-35.

Guillamón, MD, Bastida, F and Benito, B (2011) The determinants of local government's financial transparency. *Local Government Studies*, 37(4), 391-406.

Heald, D (2006) Varieties of Transparency. In *Transparency: The Key to Better Governance?* edited by Christopher Hood, and David Heald, 25–43. Oxford: Oxford University Press.

Holmes, L (2016) *Advanced introduction to organised crime*. Edward Elgar Publishing.

Homsy, GC and Warner, ME (2015) Cities and sustainability: Polycentric action and multilevel governance. *Urban affairs review*, 51(1), 46-73.

Lindstedt, C and Naurin D (2010) Transparency Is Not Enough: Making Transparency Effective in Reducing Corruption. *International Political Science Review* 31(3): 301-22.

McCullagh, P (1980) Regression models for ordinal data. *Journal of the Royal Statistical Society: Series B (Methodological)*, 42(2):109-127.

Michener, G (2019) How Cabinet Size and Legislative Control Shape the Strength of Transparency Laws. *Governance* 28(1): 77–94.

Montaldo, S (2015) The directive 2014/42/EU and social re-use of confiscated assets in the EU: advancing a culture of legality, *New Journal of European Criminal Law*, 6(2): 195-212.

Muttakin, M, Mihret, D and Khan, A (2018) Corporate political connection and social responsibility disclosures: a neo-pluralist hypothesis and empirical evidence, *Accounting, Auditing and Accountability Journal*, 30(4): 874-905.

Nam, T (2018) Examining the anti-corruption effect of e-government and the moderating effect of national culture: A cross-country study. *Government information quarterly*, 35(2), 273-282.

Ofria, F and David, P (2014). *L'economia dei beni confiscati*. Franco Angeli, Milan.

Ott, K, Mačkić, V and Bronić, M (2018) Budget transparency of local governments: The political economy of city and municipality budgets in Croatia. *Društvena istraživanja: časopis za opća društvena pitanja*, 27(4), 629-647.

Paoli L (2014) *The Oxford Handbook of organized crime*, Oxford: Oxford University Press.

Piotrowski, SJ and Van Ryzin, GG (2007) Citizen attitudes toward transparency in local government. *The American review of public administration*, 37(3), 306-323.

Reggi, L and Dawes, S (2016) *Open government data ecosystems: Linking transparency for innovation with transparency for participation and accountability*. In International Conference on Electronic Government (74-86). Springer, Cham.

Sivarajah, U, Irani, Z and Weerakkody, V (2015) Evaluating the use and impact of Web 2.0 technologies in local government. *Government Information Quarterly*, 32(4), 473-487.

Sol, DAD (2013) The institutional, economic and social determinants of local government transparency. *Journal of economic policy reform*, 16(1), 90-107.

Tolbert, C and Mossberger, K (2006) The effects of e-government on trust and confidence in government. *Public Administration Review*, 66(3): 354–69.

Vanfraechem, I, Pemberton, A and Mukwiza-Ndahinda, F (2014) *Justice for victims. Perspectives on rights, transition and reconciliation*, New York, Routledge.

Vettori, B and Misoski, B (2019) Social reuse of confiscated assets in the EU: current experiences and potential for its adoption by other EU and non-EU countries, in Fiti, T. and Koevski, G. (editors), LIBER AMICORUM. Studia in honorem academici Vlado Kambovski, Macedonian Academy of Sciences and Arts", Skopje (721-738).

Wang, Q and Niu, M (2020) Exploring the relationship between government budget information and citizens' perceptions of public service performance in China, *Public Management Review*, 22(3): 317-340.

Yang, Q (2021) Fiscal transparency and public service quality association: Evidence from 12 coastal provinces and cities of China. *Journal of Risk and Financial Management*, 14(1), 13-24.

Table 1. Content of information and variables used in the analysis

Name of the variable	Description
Land registry data	Is the information on the land registry of confiscated assets provided? (No = 0; Yes = 1)
Asset type	Is the information on the typology of confiscated assets (e.g., lands, villa, flat, box garage, etc.) provided? (No = 0; Yes = 1)
Asset location	Is the information about the location of confiscated assets provided? (No = 0; Yes = 1)
Asset size	Is the information on the size of confiscated assets provided? (No = 0; Yes = 1)
Asset destination	Is the information on the type of destination (institutional vs. social) provided? (No = 0; Yes = 1)
Asset use	Have the confiscated assets already been utilized? (No = 0; Yes = 1)
Use_who	Is the information on who is using confiscated assets provided? (No = 0; Yes = 1)
Use_law	Is the information on the authorization act issued by the LG to use confiscated assets provided? (No = 0; Yes = 1)
Use_aim	Is the information on the object of the authorization provided? (No = 0; Yes = 1)
Use_period	Is the information on the period covered by the authorizations provided? (No = 0; Yes = 1)

Table 2. - Italian LGs providing information regarding confiscated assets

Regions and geographical area	No. of LGs (total)				LGs that provided the required information				LGs that did not provide information			
	2021		2022		2021		2022		2021		2022	
	N.	*%**	*N.*	*%**	*N.*	*%**	*N.*	*%**	*N.*	*%**	*N.*	*%**
Emilia Romagna	38	*3.5%*	29	*2.7%*	19	*50%*	16	*55%*	19	*50%*	13	*45%*
Friuli Venezia Giulia	6	*0.6%*	8	*0.7%*	0	*0%*	2	*25%*	6	*100%*	6	*75%*
Liguria	14	*1.3%*	15	*1.4%*	7	*50%*	5	*33%*	7	*50%*	10	*67%*
Lombardia	184	*17.1%*	188	*17.5%*	59	*32%*	69	*37%*	125	*68%*	119	*63%*
Piemonte	49	*4.6%*	53	*4.9%*	19	*39%*	20	*38%*	30	*61%*	33	*62%*
Trentino Alto Adige	4	*0.4%*	3	*0.3%*	1	*25%*	0	*0%*	3	*75%*	3	*100%*
Valle d'Aosta	1	*0.1%*	6	*0.6%*	0	*0%*	0	*0%*	1	*100%*	6	*100%*
Veneto	32	*3.0%*	36	*3.4%*	10	*31%*	11	*31%*	22	*69%*	25	*69%*
Total North	**328**	***30.5%***	**338**	***31.5%***	**115**	***35%***	**123**	***36%***	**213**	***65%***	**215**	***64%***
Lazio	77	*7.2%*	74	*6.9%*	38	*49%*	31	*42%*	39	*51%*	43	*58%*
Marche	5	*0.5%*	4	*0.4%*	3	*60%*	2	*50%*	2	*40%*	2	*50%*
Toscana	26	*2.4%*	27	*2.5%*	8	*31%*	8	*30%*	18	*69%*	19	*70%*
Umbria	7	*0.7%*	4	*0.4%*	1	*14%*	2	*50%*	6	*86%*	2	*50%*
Total Centre	**115**	***10.7%***	**109**	***10.2%***	**50**	***43%***	**43**	***39%***	**65**	***57%***	**66**	***61%***
Abruzzo	31	*2.9%*	28	*2.6%*	8	*26%*	7	*25%*	23	*74%*	21	*75%*
Basilicata	3	*0.3%*	4	*0.4%*	2	*67%*	0	*0%*	1	*33%*	4	*100%*
Calabria	139	*12.9%*	133	*12.4%*	51	*37%*	25	*19%*	88	*63%*	108	*81%*
Campania	131	*12.2%*	138	*12.9%*	45	*34%*	78	*57%*	86	*66%*	60	*43%*
Molise	2	*0.2%*	2	*0.2%*	0	*0%*	0	*0%*	2	*100%*	2	*100%*
Puglia	98	*9.1%*	97	*9.0%*	42	*43%*	47	*48%*	56	*57%*	50	*52%*
Sardegna	22	*2.0%*	20	*1.9%*	6	*27%*	8	*40%*	16	*73%*	12	*60%*
Sicilia	207	*19.2%*	204	*19.0%*	87	*42%*	61	*30%*	120	*58%*	143	*70%*
Total south and Islands	**633**	***58.8%***	**626**	***58.3%***	**241**	***38%***	**226**	***36%***	**392**	***62%***	**400**	***64%***
Total (Italy)	**1.076**		**1.073**		**406**	***38%***	**392**	*37%*	**670**	***62%***	**681**	*63%*

**Incidence of each Region on the total number of Italian LGs*

Table 3. - Descriptive statistics (part I)

	LGs that provided the required information				LGs that did not provide information			
Panela A: Size of LGs	**2021**		**2022**		**2021**		**2022**	
Small LGs (< 15,000 inhabitants)	200	*29.5%*	185	*27.2%*	478	*70.5%*	496	*72.8%*
Medium LGs (15,001 to 249,999)	194	*50.3%*	195	*51.3%*	192	*49.7%*	185	*48.7%*
Big LGs (250,000 to 499,999)	6	*100%*	6	*100%*	0	*0,0%*	0	*0,0%*
Metropolitan areas (> 500,000)	6	*100%*	6	*100%*	0	*0,0%*	0	*0,0%*
Total	**406**	***37,7%***	**392**	***36,5%***	**670**	***62,3%***	**681**	***63,5%***
Panel B: Content of information	**2021**		**2022**		**2021**		**2022**	
Type of asset	359	*88.4%*	47	*11,6%*	347	*88,5%*	45	*11,5%*
Location	336	*82.8%*	70	*17,2%*	340	*86,7%*	52	*13,3%*
Size (in square meters)	221	*54.4%*	185	*45,6%*	237	*60,5%*	155	*39,5%*
Type of use (social, institutional)	263	*64.8%*	143	*35,2%*	206	*52,6%*	186	*47,4%*
Mean		***72.6***		***27.4***		***72.1***		***27.9***
Panel C: Document format	**2021**		**2022**					
Open format (Excel, CSV)	56	*13,8%*	82	*20,9%*				
PDF	253	*62,3%*	260	*66,3%*				
Closed format other than PDF	44	*10,8%*	1	*0,3%*				
PDF scanned as image	53	*13,1%*	49	*12,5%*				
Total	**406**		**392**					

Table 4. - Descriptive statistics (part II) and correlation analysis

Dependent variables	***Mean***	***Std. Dev.***					
DI_1	2.5427	3.2874					
DI_2	3.0193	3.5782					
Independent/control variables	***Mean***	***Std. Dev.***	*SNAI*	*Strength*	*Incomepc*	*Density*	*Assets*
SNAI	3.6529	0.9865	1				
Strength	0.6374	0.2222	0.1407**	1			
Incomepc	15830.50	3647.28	0.4809***	0.1614**	1		
Density	912	1560	0.3327***	-0.022	0.1645**	1	
Assets	14.7080	29.8514	0.1043*	-0.0279	-0.1014†	0.2438***	1

Table 5. - Empirical results

	Ordered logistic model				***Tobit model***			
	DI₁		***DI₂***		***DI₁***		***DI₂***	
	Coef.	**Std. Err.**	**Coef.**	**Std. Err.**	**Coef.**	**Std. Err.**	**Coef.**	**Std. Err.**
SNAI	0.4954**	0.1424	0.2639*	0.1285	1.6028**	0.4991	1.0498*	0.5299
Strength	-1.0028*	0.4845	-0.7562†	0.4504	-3.3125†	1.7668	-2.9458	1.9447
Incomepc	0.9358†	0.5541	1.7872**	0.5348	3.4252†	2.0402	7.3704**	2.2524
Density	0.1335*	0.0650	0.0904	0.0651	0.5423*	0.2519	0.4236	0.2808
Assets	0.0068*	0.0032	0.0070†	0.0038	0.0292*	0.0124	0.0250†	0.0145
_cons					-38.4498*	18.9254	-73.67***	20.9518
/sigma					6.3747	0.4336	7.1124	0.4827
/cut1	10.77871	5.119743	18.00454	4.959353				
/cut2	10.91098	5.120309	18.16596	4.961037				
/cut3	11.03233	5.120916	18.2908	4.962345				
/cut4	11.33107	5.122702	18.57337	4.964897				
/cut5	11.8275	5.125554	18.9629	4.968362				
/cut6	12.22756	5.128044	19.32975	4.972037				
/cut7	12.62918	5.1305	19.62873	4.974733				
/cut8	13.3125	5.134929	20.10215	4.978434				
/cut9	14.66749	5.147503	20.74245	4.983902				

Notes:
(i) Dependent variable in equation 1 is DI_1 and dependent variable in equation 2 is DI_2.
(ii) †, *, **, and *** represents statistical relevance at 90%, 95%, 99% and 99.9%, respectively.

Figure 1 - Distribution of mafia index by region