DOES THE MAFIA HIRE GOOD ACCOUNTANTS?

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ABSTRACT

We investigate if organized crime groups (OCG) are able to hire skillful accountants. We use a sample of Italian private companies whose financial statements are jointly audited by three accountants and use unique data about criminal records to identify accountants with connections to OCG. We find that the non-OCG clients serviced by accountants with connections to OCG have higher quality financial statements. We also find that these non-OCG clients receive more modified audit opinions suggesting greater auditor independence. These findings provide indirect evidence the Mafia is able to hire good accountants, despite the downside risk of Mafia associations. Results are robust to controls for self-selection, for other determinants of auditor expertise, direct connections of directors and shareholders to OCG, and corporate governance mechanisms that might influence auditor choice and audit quality.

Keywords: accountant connections to organized crime; accountant criminal record; criminal investigations; financial reporting quality

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I. Introduction

Prior literature examines how organized crime groups (OCG) exploit privately owned businesses to hide illegal proceeds and profits (e.g., Zimmerman and Forrester 2020; 2021). Moreover, to facilitate sophisticated fraudulent schemes, criminal organizations frequently capitalize on the professional services of unwitting, negligent, or corrupt accountants, attorneys, and other financial advisors (Ott 2010). Recently, accountants – together with other legal and financial advisors – were arrested for white collar crimes during large-scale mafia police investigations (e.g., "*Project Sindacato*" in Toronto, Canada, and "*Operazione Infinito*" in Milan, Italy). Although accountants connected to OCG are arguably the focus of extensive enforcement actions by police forces around the world, our understanding of who they are and what skillset they bring to the criminal organizations' ecosystem is limited, due to difficulties associated with identifying such individuals.

In this paper, we exploit a unique dataset of individual accountants investigated for alleged mafia-related crimes to address the question of whether criminal organizations are able to hire skillful (good) accountants.[1] Criminal organizations might not be able to hire skillful accountants if these professionals do not want to risk being associated with them, as this can potentially impair their reputational capital and create legal problems. However, criminal organizations can leverage on their repertoire of mafia techniques (e.g., intimidation, violence, and bribes) to coerce, manipulate, and influence accountants into accepting their contractual terms. Furthermore, accountants might be willing to work for criminal organizations as these clients might offer good income, steady work, and protection against criminal charges. To preview our results, we find that non-OCG firms serviced by accountants connected to criminal organizations have higher quality

[1] We note that this sampling restriction potentially works against finding our results as the most skillful accountants may be those that help OCG clients that avoid investigations.

financial statements, as evidenced by reporting fewer small earnings, lower levels of discretionary revenues and fewer tax restatements, receive more modified audit opinions and pay their accountants higher fees. While these results are indirect evidence, they do suggest criminal organizations hire "good" accountants, based on our evidence that these accountants perform high quality work for their non-OCG clients, and receive a fee premium for their services. However, our research cannot answer the question of why these seemingly "good" accountants became affiliated with the Mafia in the first place.

The Italian institutional environment is a good setting for our analysis, as private firms generally do not have an external audit firm. Instead, they must appoint three outside accountants to form a Board of Statutory Auditors (BSA).[2] The BSA serves a governance role that is like an audit. Importantly, as part of their oversight role, BSA members must also sign off on the client's annual tax return and are personally liable for negligence in overseeing the client's tax and GAAP compliance (Bianchi, Falsetta, Minutti-Meza, and Weisbrod 2019). We identify BSA members with connections to OCG (hereinafter *suspect BSA*) from a unique database provided by the Italian Internal Intelligence and Security Agency ("*Agenzia Informazioni e Sicurezza Interna*" or the AISI) that contains information on all directors, shareholders and BSA members of a large population of Italian private firms investigated for alleged mafia-related crimes, regardless of the investigation's outcome. We use the entire population of private firms headquartered in the Lombardy region, which is the engine of the Italian economy and has recently become a central target of OCG's economic activities (Savona 2015). For the period 2006–2013, we obtain a final

[2] Accountants who serve on a BSA are unlikely to belong to Big 4 accounting firms because these firms have internal procedures that prohibit their partners and managers from working in their own name. More generally, Big 4 firms are unlikely to have ties to OCG because of the risks to their reputation capital. We used Factiva and Lexis Nexis to retrieve available public records about legal proceedings involving Big 4 accountants and criminal organizations in Italy and did not find any evidence linking Big 4 firms to criminal organizations.

sample of 14,562 unique private firms resulting in 86,576 firm-year observations of which 7.9 percent have a suspect BSA.

Prior studies on criminal behavior show that individuals with a prior history of legal infractions tend to be risk-takers (e.g., Davidson, Dey and Smith 2015; Amir, Kallunki, and Nillson 2014). Accountants with a criminal record that shows connections to OCG might accept comparatively riskier clients that might exhibit higher financial risk, weaker governance and lower financial reporting quality (e.g., Bianchi, Marra, Masciandaro, and Pecchiari 2021). Further, in a setting like Italy, where there is a certain level of book-tax conformity, accountants might advise their clients to engage in aggressive tax strategies that might lower the quality of their financial statements. However, several factors suggest that accountants with connections to OCG might have incentives to provide high quality services to their clients. Contrary to directors who are known to be more risk seeking (Davidson et al. 2015), accountants are known to be more risk-adverse individuals (Amir, Kallunki and Nilsson 2013), implying a positive effect on their clients' financial reporting quality. Further, in our setting, accountants serving as a BSA member might have strong incentives to conduct high quality audits in order to retain valuable clients and to expand their portfolio, given that these engagements represent a primary source of their professional income (Bianchi, Carrera, and Trombetta 2020). Last, advising aggressive tax practices might draw the attention of tax authorities, which would potentially expose the Mafia ecosystem to a higher risk of being caught, hence motivating accountants to refrain from advising aggressive tax behavior. For all these reasons, we predict firms serviced by a suspect BSA to exhibit higher levels of financial reporting quality.

In our empirical tests, we examine whether BSA members' connections to OCG enhance the financial reporting quality of their clients' financial statements. We do so by using several

measures of quality: *(i)* small reported profits which is a measure of income-increasing earnings management that Caramanis and Lennox (2008) use for private firms; *(ii)* discretionary revenues to detect a combination of revenue and expense manipulation (Stubben 2010); and (*iii*) tax-related restatements that prior studies have used as a measure of financial reporting quality in the tax area for Italian private firms (Bianchi 2018). We find that the clients of *suspect BSAs* are less likely to report a small profit, experience lower levels of discretionary revenues and report fewer tax-related restatements. In additional analysis, we also find that firms serviced by a suspect BSA receive a higher frequency of modified audit opinions which is suggestive of greater auditor independence. Overall, the findings show that suspect BSAs are associated with higher quality financial statements, which suggests that these individuals are, else equal, more skilled accountants, and provide value to their private clients. Based on our analysis of firms serviced by a *suspect BSA*, the results are suggestive that the Mafia is able to hire good accountants that provide high-quality services.

Our main results are robust to controlling for client and BSA characteristics. However, we acknowledge that the matching of firms and BSA members is not random. Therefore, we follow prior accounting studies and adopt entropy balancing, propensity scored matching, and Heckman two-stage model to address potential selection bias. Results and main inferences remain unchanged.

After showing a positive association between *suspect BSAs* and financial reporting quality, we examine whether *suspect BSAs* are compensated for their service. We observe that firms serviced by a *suspect BSA* pay comparatively higher fees, which suggests two possible explanations. On the one hand, clients might perceive that accountants with ties to the Mafia can be bribed in order to provide more favorable outcomes. Alternatively, and consistent with our

evidence, these accountants provide better-quality professional services and are paid a premium for these services.

We conduct additional tests to exploit cross-sectional variation in our sample. First, we partition the sample cash-intensity and find that cash intense firms serviced by a suspect BSA have fewer tax-restatements, are more likely to receive a modified audit opinion and to pay higher fees. These results are consistent with anecdotal evidence that cash intense companies are more likely to be targeted by mafia organizations possibly for money-laundering purposes. Finally, we partition the sample by firm's location, and find that firms located outside the Milan province and serviced by a suspect BSA have fewer tax related restatement and pay higher fees relative to firms located in the city of Milan. These results suggest that suspect BSAs have lower reputational capital at risk when servicing clients outside larger cities.

To summarize, we report indirect evidence that the Mafia hires good quality accountants. We do this by identifying those accountants with ties to the Mafia and investigate the work of these accountants in their monitoring role as a member of the BSA for non-Mafia clients. Our evidence indicates that work of these accountants as a BSA is of higher quality compared to those accountants with no ties to the Mafia.

We make several contributions to the extant literature. First, this work extends the literature on organized crime that analyzes firms' corruption (e.g., Pinotti 2015a, 2015b; Daniele and Geys 2015). Bianchi et al. (2021) also use the ASI database and identify firms with ties to OCG. They document that firms with Mafia ties have lower quality financial reporting, lower profit margins, and are more likely to fail. In contrast, we investigate the role of the BSA as external monitor and examine if having a BSA with Mafia ties affects financial reporting, while controlling for the client's Mafia ties. To rule out the possibility that a client's Mafia ties might be viewed as a

confounding factor in our models, we run an additional analysis that confirms that our results are driven by BSA characteristics rather than client-specific factors. Second, our findings complement the burgeoning literature on individual auditors (Lennox and Wu 2018) by examining the impact of accountants' risk preferences on financial reporting quality. Specifically, our study extends and challenges results from prior literature on the link between auditor risk profiles and portfolio decisions (Amir et al. 2014) and audit quality (Pittman, Stein, and Valentine 2020) by providing new evidence beyond the context of minor infractions, i.e., the context of organized crime, and showing a positive association with financial reporting quality.

The remainder of the paper is organized as follows. In the next section, we discuss the related literature and develop our main hypothesis. We explain our institutional setting in Section III. Section IV describes sample and research design. Section V presents our empirical findings and Section VI concludes.

II. The Institutional Setting

Italy provides a good setting to study the role of accountants connected to organized crime for several reasons. First, annual audits of private companies are regulated by European Directive and are mandatory for all companies exceeding certain size thresholds (4.4 million euros in total assets, 8.8 million euros in total sales, and 50 employees). When a private company exceeds these limits for at least two consecutive years, shareholders must appoint three outside accountants to form a "Board of Statutory Auditors (BSA). The BSA is independent from the board of directors, which is also appointed by shareholders. The BSA operates as a joint audit engagement (Bianchi 2018) where its members: *(1)* share audit effort, *(2)* sign a single audit report, and *(3)* are jointly liable for the audit activity. BSA members must meet periodically and share the audit documentation produced during their activities. Some activities can be performed as a group (e.g., monitoring the

internal control procedures adopted by the client or acquiring information from the board of directors). Each member of a BSA signs the audit report and is jointly liable for any undiscovered or unreported material misstatement (CNDC 2012). BSA members adopt the Italian auditing standards which are based on the International Standards of Auditing (ISAs).

The statutory audit of a BSA results in an audit opinion. A BSA also performs some duties related to the control and supervision of the company's management: (1) monitoring compliance with the law and by-laws; (2) monitoring the adequacy of the organizational, administrative, and accounting structures adopted by the company; (3) verification that the company's annual financial statements have been prepared in conformity with the relevant provisions of the Civil Code and other pertinent legislation. Since 2004, statutory audits of private companies can, alternatively, be performed by a registered auditor, appointed by the shareholders.[3]

Organized crime in Italy is an economically important phenomenon generating proceeds that were estimated to be 12 percent of Italian GDP in 2017 (ISTAT 2019). Mafia organizations have roots in Italy since the XIX century (Paoli 2004). Further, in 1982 the Italian legislature introduced (i.e. Law 646/82) a specific article into the Penal Code (article 416-bis) to target Mafia organizations, defined as those groups that "exploit the power of intimidation granted by the membership in the organization to commit crimes and acquire the control of economic activities, concessions, and public contracts." Moreover, anecdotal evidence suggests that Italian criminal organizations have extended their operations abroad, and that they are present all over the world

[3] When an external auditor is appointed, the BSA advises shareholders on the appointment of the external auditor and the BSA continues to perform its duties related to the control and supervision of the company's management. Further, the BSA must coordinate with the external auditor and express an opinion about the capitalization of certain intangible assets (such as R&D and goodwill), the firm's economic results, and the status of the company as a going-concern.

with criminal proceeds equivalent to 3.6% of global GDP (UNODC 2011), making the understanding of organized crime a worldwide phenomenon.[4]

Finally, we can benefit from invaluable sensitive data provided by the Italian Internal Intelligence and Security Agency ("Agenzia Informazioni Sicurezza Interna" or the "AISI"). The AISI manages a database (System of Investigation or "SoI") that reports the outcomes of criminal investigations by police forces. The SoI database has been used in a recent study by Bianchi et al. (2021) who kindly share the data with us.[5] This database allows us to identify a large population of individuals investigated for Mafia-related crimes (e.g., Mafia-type associations, usury, extortion, robbery, murder, drug trafficking, smuggling, counterfeiting), from which we can identify those who are appointed as members of a BSA. Given that all Italian private firms are required to file their financial statements to the local Chamber of Commerce, and these data are publicly available through CERVED database, we can work on a large sample of private firms to investigate our hypothesis.

III. Related Literature and Hypothesis development

Audit Quality and Private Firms

Private companies demand financial reporting and audit quality for several reasons, including reduction of agency conflicts related to higher ownership concentration or related to a close relationship with major capital providers (Ball and Shivakumar 2006). Private clients also demand their auditors to provide additional services that might go beyond the standard assurance (Bianchi et al. 2019; Bianchi et al. 2020). Van Tendeloo and Vanstraelen (2008) show a positive relation between audit quality and the provision of non-audit services. Further, Fontaine et al.

[4] The Italian OCG are present in countries like the United States, Canada, Germany, Switzerland, France and Spain, thereby converting themselves in a global menace for the world economy (Caneppele and Sarno 2013).
[5] We refer to Bianchi et al. (2021: Section III – The proprietary data source) for details about the SoI database.

(2013) suggest that clients' perception of high-quality audits depends on whether there are additional services provided together with the audit. Private firms' auditors provide business advice in order to improve operational efficiency and effectiveness (Vanstraelen and Schelleman 2017) and fulfill an implicit advisory role that entails advising on investment and tax matters (Collin, Ahlberg, Berg, Broberg, and Karlsson 2017). Finally, private firms' auditors are typically smaller with less reputational capital at risk and lower litigation risk (Vanstraelen and Schelleman 2017).

Organized Crime Groups and Legal Businesses

Criminal organizations represent a worldwide socio-economic threat and exploit legitimate businesses to maintain a façade of legality, hide criminal activities and profits, and launder money (Europol 2017). At the macroeconomic level, research on organized crime shows that the presence of criminal organizations is negatively associated with GDP (Pinotti, 2015) and the level of foreign direct investments (Daniele and Marani, 2011). At the micro level, studies examine incentives of criminal organizations to penetrate the legal economy (Bertoni 1997; Arlacchi 2007; Von Lampe 2015). Firms connected to organized criminal groups (OCG) may give criminals respectability and status in legitimate society (Fiorentini 2000), which, in turn, may strengthen their power in the areas they control (Bertoni 1997). Furthermore, firms connected to OCG might generate legal profits and provide legal employment, but also supply logistical support for illegal activities. Connections to OCG can also entail collusion and generate barriers to entry by discouraging competition through violence or by asphyxiating them through usurious loans (Masciandaro 1999), hence enhancing profitability relative to peers (Fabrizi, Malaspina, and Parbonetti 2019; Slutzky and Zeume 2019; Zimmerman and Forrester 2020). However, OCG can also cannibalize a firm's value by diverting resources outside the firm (Fiorentini 2000, Von Lampe 2015), possibly through

money laundering schemes (Bertoni 1997; Arlacchi 2007) and jeopardize the firm's existence (Bianchi et al. 2021).

Organized Crime Groups and Accountants

Criminal organizations do not work in isolation; rather, they use networks of unwitting, negligent, or corrupt professionals, including accountants, lawyers, and financial advisors, to design and implement the most sophisticated fraudulent schemes (Ott 2010). Academic research is silent about the incentives of accountants with connections to OCG to provide high quality services.

Prior studies examine the consequences of top executives *off-the-job* behavior and document that directors who have been convicted or suspected of crimes are more prone to take risks. Davidson et al. (2015) find that firms with top executives with a legal record show higher SEC accounting and enforcement releases and financial restatements. Dass et al. (2016) find that firms with corrupt managers show greater discretionary accruals, less managerial guidance on earnings, and lower level of stock liquidity. More recently, a few papers examine the criminal records of auditors. Amir et al. (2013) use data of Swedish audit partners' criminal convictions and find that clients serviced by partners with criminal convictions have a greater financial risk, as evidenced in their financial ratios, and a greater governance risk, as reflected in the board composition that clients serviced by partners without criminal convictions, which suggests that audit partners with criminal convictions engage in riskier audits than those without criminal convictions. Relatedly, Pittman et al. (2021) use recent data of U.S. audit partners' background checks to develop a measure of risk tolerance that reflects whether the partner has committed any legal infractions. They find that clients of partners with prior legal infractions show greater

propensity to misstatements, fewer material weaknesses, and less loss recognition, which suggests that partners that engage in risky off-the-job behaviors conduct lower quality audits.

Hypothesis

Even though the criminal records of suspect BSA members might suggest that these individuals are more prone to take risks, there are reasons to believe that accountants with connections to OCG might have incentives to provide high quality services to their clients. First, BSA members play an important governance role in monitoring management and controlling shareholders that requires a certain level of independence. Further, BSA members compete in a highly specialized and competitive labor market, where poor performance may undermine their reputation and future career. This is especially important because BSA engagements represent a primary source of professional income for Italian accountants (Bianchi et al. 2020) and because litigation responsibilities of BSA members are at individual level (Bianchi 2018). Last, given that BSA members advise their clients on business and tax matters (Collin et al. 2017; Bianchi et al. 2020), advising aggressive tax practices might draw the attention of tax authorities, which would potentially expose the Mafia ecosystem to a higher risk of being caught, hence motivating accountants to refrain from advising aggressive tax behavior that could potentially impair the reporting quality of their clients. For all these reasons, we predict that firms serviced by a suspect BSA show higher levels of financial reporting quality. Therefore, the main testable hypothesis is stated in the alternative form as follows:

> *Hypothesis*: *All else equal, BSA connections to organized crime are associated with higher financial reporting quality.*

However, injecting tension into the analysis, several factors suggest that accountants with connections to OCG might be associated with low quality financial reporting. First, accountants with a criminal record that shows connections to OCG might accept comparatively riskier clients that might be characterized by higher financial risk, weaker governance, and lower financial reporting quality (Bianchi, Marra, Masciandaro, and Pecchiari 2021). Second, accountants allegedly connected to OCG might exercise insufficient professional skepticism and, in turn, expend less effort on their engagements, resulting in lower financial reporting quality (Nelson 2009). Third, in a setting like Italy, where there is a certain level of book-tax conformity (Burgstahler, Hail, and Leuz 2006), accountants might advise their clients to engage in aggressive tax strategies that might impair the quality of their financial statements. To the extent that these arguments prove valid, this would work against finding the hypothesized BSA connections to OCG effect.

IV. Data and Research Design

Sample Selection

We examine all private, non-financial firms headquartered in Lombardy whose capital is the Italian financial center, Milan. Lombardy, as of 2013 (the end of our sample period), had a population of 9.8 million (approximately 17 percent of Italy), and a GDP of about 330 billion euros, representing roughly 25 percent of the Italian GDP. It thus represents one of the most productive and developed Italian regions and it has recently become a central target of organized crime's economic activities (Varese 2006; Savona 2015). The choice of Lombardy is also dictated by the AISI's interest in detecting the presence of criminal organizations in this region, which is seen as a threat to the entire country.

For the 2006–2013 period, we identify an initial sample of 133,789 firm-year observations (17,608 unique firms) from AIDA database of Bureau Van Dijk, which contains financial and accounting information for Italian firms. We then merge our sample with CERVED database which is the repository of governance information (e.g., board composition, shareholders list, and BSA members) that Italian firms submit annually to the system of the Chamber of Commerce. Finally, we merge the resulting sample with the SoI database that contains information on the criminal records of all BSA members.[6] We drop 9,461 firm-year observations because the financial statements are not audited. Further, we eliminate 3,825 firm-year observations because governance data are not available, and 33,927 firm year observations because of missing data on the variables included in our models. We obtain a final sample of 86,576 firm-year observations (14,562 unique private firms) for our main analyses. Information about audit opinions and audit fees is not available in AIDA database, therefore we needed to manually collect this information from the annual reports of firms in our sample that are available in readable format. Given the time-consuming task of collecting this information for all observations in our sample, we started from the 6,871 observations with a *Suspect BSA* (treatment group) in our sample and construct a propensity score matched sample of 6,871 observations for the *non-Suspect BSA* cases (control group) using control variables from Equation 1. We then manually searched for the BSA fees and BSA opinion data; we dropped 1,485 pairs because of missing data for either the BSA opinion or the BSA fees. We obtained a propensity scored matched sample of 5,386 pairs of *Suspect BSA* and *non-Suspect BSA* that we use in our empirical analyses (see Appendix B for details about this sample). Table 1 summarizes in details the sample selection process.

[6] Each firm in Italy has a unique identification number for VAT purposes that we used to merge the AIDA and CERVED databases. Further, each individual is also assigned a unique number (similar to the social security number in the U.S.) that we used to merge CERVED and the SoI databases.

---------- *Table 1 about here*----------

Research Design

Financial Reporting Quality Models

To evaluate the impact of suspect BSAs on financial reporting quality, we examine three measures: small reported earnings, discretionary revenues, and tax related restatements. We do so by estimating the following model:

$$\begin{aligned} FRQ_{i,t} = {} & +\beta_0 +\beta_1 SUSPECT\_BSA_{i,t} +\beta_2 NON\_BIG4_{i,t} + \beta_3 BIG4_{i,t} \\ & +\beta_4 SUSPECT\_FIRM_{i,t} +\beta_5 BSA\_TENURE_{i,t} +\beta_6 SIZE_{i,t} + \beta_7 ROA_{i,t} \\ & +\beta_8 LEVERAGE_{i,t} + \beta_9 SALES\_GROWTH_{i,t} + \beta_{10} CFO_{i,t} \\ & +\beta_{11} PPE\_GROWTH_{i,t} + \beta_{12} LAG\_ACCRUALS_{i,t} +\beta_{13} BOARD\_SIZE_{i,t} \\ & +\beta_{14} AGE_{i,t} +\beta_{15} DUAL_{i,t} +\beta_{16} FAMILY\_FIRM_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

Where the dependent variable is *Financial Reporting Quality (FRQ).* Our first proxy of *FRQ* is the likelihood of reporting a small positive profit which has been used in prior studies that examine private firms (e.g., Caramanis and Lennox 2008). We group firms into net income classes with a range of 0.005 as in Dechow, Richardson and Tuna (2003). Figure 1 shows the distribution of reported profits divided by total assets. If firms manage earnings upward to avoid reporting losses, we expect a discontinuity in the earnings distribution around zero. Figure 1 reveals that there are 13,116 observations of reported earnings between 0 and 0.005 compared to only 3,890 observations of reported earnings between 0 and -0.005, which is suggestive that firms in our sample engage in income-increasing earnings management which is consistent with Caramanis and Lennox (2008). We create an indicator variable, *SMALL,* which is equal to one if a firm reports a small profit in the rage [0, +0.005], and zero otherwise.

---------- *Figure 1 about here*----------

Our second proxy of financial reporting quality is DREV which are the residuals calculated with the Stubben (2008) model of discretionary revenues. We estimate the following regression for each two-digit NACE-year grouping with at least 10 observations:

$$\Delta REC = \alpha + \Delta SALES + \varepsilon \quad (2)$$

where ΔREC is the change in accounts receivable from the start to the end of the year (scaled by total assets) and $\Delta SALES$ is the change in sales from the previous year to the current year (scaled by total assets).

Our third proxy captures financial reporting quality in the tax area. *TAX_REST* is an indicator variable equal to one if firm *i* reports a tax-related restatement in year *t*, and zero otherwise. In our setting, a tax-related restatement refers to an out-of-period adjustment that includes the amount of income tax expense related to previous years and that Italian private companies record in a dedicated account, among the extraordinary items. This amount includes both errors and sanctions that the Italian tax authority ("Agenzia delle Entrate") has enforced on a company for misreporting either income or sales taxes (VAT) in previous years. This measure has been used by prior studies that examine Italian private firms (e.g, Bianchi 2018; Bianchi et al. 2019).

SUSPECT_BSA is our test variable which equals to one if any member of a firm's BSA is alleged to be connected to criminal organizations due to a crime investigation identified as Mafia-related by Italian Mafia Enforcement Administration and reported in the SoI database, and zero otherwise. Arguably, individuals who display unethical tendencies, such as past criminal behavior, tend to persist in this type of behavior over time by justifying it through moral disengagement (Fisman and Miguel 2007; Davidson et al. 2015). Therefore, we consider the presence of an investigation record *at any point in time* as a proxy for criminal behavior, which we consider as

time invariant characteristic of BSA members in our sample. For example, if a firm appoints an accountant to its BSA for the years 2011-2013 and this accountant undergoes a Mafia related investigation in 2013, then *SUSPECT_BSA* for the firm she serves to, will be equal to one for the years 2011-2013, and zero for the period 2006-2010. While, if an accountant undergoes a Mafia related investigation in 2005 and is appointed to a BSA in year 2006, then *SUSPECT_BSA* will be equal to one during the entire sample period (i.e., 2006-2013). We predict that the coefficient of *SUSPECT_BSA* should be negative if the financial statements of firms serviced by a suspect BSA are of higher quality (i.e., fewer small positive earnings, lower levels of discretionary revenues and fewer tax-related restatements).

We include several control variables in our model to control for specific characteristics of the Italian environment as well as determinants of financial reporting quality (e.g., Francis and Michas 2013; Bianchi 2018; Bianchi et al. 2021). To control for the presence of an external auditor (in addition to the BSA) we add *NON_BIG4* and *BIG4* which are indicator variables equal to one if the external auditor is either a non-Big 4 or a Big 4 audit firm, and zero if the financial statements are audited by the BSA. Following Bianchi et al. (2021) we include *SUSPECT_FIRM,* which is an indicator variable equal to one if any director or shareholder is alleged to be connected to criminal organizations due to a crime investigation identified as Mafia-related by Italian Mafia Enforcement Administration and reported in the SoI database, and zero otherwise. We add *BSA_TENURE* to capture the (logarithm of) years the BSA has been servicing the firm. We control for firm characteristics, including *SIZE* calculated as the natural logarithm of total assets; *ROA* is earnings before taxes divided by total assets; *LEVERAGE* is total debt scaled by average total assets; *SALES_GROWTH* which is the percentage growth in a firm's sales; *CFO* measures the annual cash flow from operations as the sum of net income, depreciation and amortization, and changes

in current liabilities, minus changes in current assets, scaled by lagged total assets; *PPE_GROWTH* is the one-year percentage growth in a firm's property plant and equipment from year *t-1* to *t;* *LAG_ACCRUALS* are calculated as change in non-cash current assets minus change non-debt current liabilities minus depreciation divided by lagged total assets. We also control for corporate governance characteristics. *BOARD_SIZE* is the number of board members; *LAGE* is the natural logarithm of years since incorporation; *DUAL* is an indicator variable equal to one if the CEO is also the chair of the board of directors; and *FAMILY_FIRM* is an indicator variable equal to one if a family owns more than 25 percent of the outstanding shares (Lins, Volpin, and Wagner 2013; Amore, Garofalo, and Minichilli 2014). We include year and industry fixed effects, and we cluster robust standard errors by firm to correct for serial dependence (Petersen 2009). All variable definitions are included in Appendix A.

V. Empirical Results

Descriptive statistics

Table 2, Panel A, shows descriptive statistics. In our sample, in 82.3 percent of the observations the BSA is in charge of the financial audit, while in 11.3 percent a Big 4 external auditor audits the financial statements, and in 6.4 percent a non-Big 4 external auditor is in charge of the financial audit. This composition of the sample conforms with other studies that use Italian private firms (e.g., Bianchi 2018). Firms serviced by a suspect BSA are about eight percent of the sample. About 15.4 percent of the firms reports a small profit and seven percent of the firms in our sample report tax-related restatements. We also find that 12.6 percent of the firms in our sample have connections to organized crime through either a director or a shareholder. The average tenure of a BSA is 3 years. The average firm in our sample has Euro 32.5 million in total assets and Euro

32.8 million in total revenues, an ROA of 3.3 percent and total leverage of 19.4 percent. In our matched sample, the average BSA fees are Euro 20.3 thousand and 6 percent of firms receive a modified audit opinion. All continuous variables are winsorized at the one percent and 99 percent levels.

Panel B shows differences in means between firms with and without a suspect BSA. Firms with a suspect BSA are larger, more leveraged, and are less often audited by an external auditor. Importantly, they show fewer small positive earnings and tax-related restatements. We also find that in the propensity score matched sample, firms serviced by a suspect BSA are more likely to receive a modified audit opinion and pay higher fees. Panel C shows correlation table. We find a negative correlation between *SUSPECT_BSA* and *TAX_RESTAT* and a positive correlation with *SUSPECT_FIRM*.

---------- *Table 2 about here*----------

Multivariate regression results

Results of Small Profits Model

Table 3 displays results of the small profits model. We expect the coefficient of *SUSPECT_BSA* to be negative if the firms serviced by a suspect BSA are less likely to engage in earnings management. In Column 1, we exclude observations where an external auditor audits the financial statements and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.105; z-statistics = –1.99), which suggests that the probability of reporting a small profit decrease in the presence of a *suspect* BSA. In Column 2, we run the analysis with the full sample and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.089; z-statistics = –1.78), which implies that a connection between a BSA's member and OCG is associated with a 7.6-percent decrease in the unconditional probability of reporting a small profit (from 15.5-percent to 14.4-percent).

We acknowledge that the matching of firms and BSA members is not random, therefore we follow prior accounting studies (Lennox, Francis, and Wang, 2012) to address potential selection bias. In Column 3, we use entropy balancing, which is a quasi-matching approach which re-weights each control observation so that post-weighting distributional properties of matched variables of treatment and control observations are virtually identical, thereby ensuring covariate balance (McMullin 2020). We find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.083 z-statistics = –1.66). In Column 4, we follow prior studies (e.g., Shipman, Swanquist, and Whited 2017) and match, without replacement, each observation with a *SUSPECT_BSA* to its closest match in the entire sample of firms without a suspect BSA member (caliper distance of one percent) based on all the covariates from Equation 1 (see Table 1 for information about the sample selection). In Appendix B, we show differences in means for all the variables in the model between *SUSPECT_BSA* and *non-suspect* BSA groups. We find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.133; z-statistics = –2.02). Next, we estimate a Heckman (1979) two-stage model (Lennox et al., 2012) where in the first stage we add two instruments, *BSA_SOUTH* and *HIGH_CASH_IND*, which can explain the presence of BSA members with connections to OCG, i.e., accountants who were born in the Italian southern regions where the Mafias are rooted (Paoli 2004) and industries with high cash holding intensity that are potentially targeted by the Mafias for money laundering purposes. Arguably, these instruments cannot be determined by the current level of the dependent variable, *SMALL*. Column 5 shows results of the first stage. Consistent with our predictions we find a positive and significant coefficient on *BSA_SOUTH* (coeff: 1.805; z-statistics = 18.86) and on *HIGH_CASH_IND* (coeff: 0.183; z-statistics = 2.18). In Column 6, we show results of the second stage; we find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.088; z-statistics = –1.71).

---------- *Figure 3 about here*----------

Results of the Discretionary Revenues Model

Table 4 displays results of the discretionary revenues model. We expect the coefficient of *SUSPECT_BSA* to be negative if the firms serviced by a suspect BSA are less likely to engage in revenues and expense manipulation. In Column 1, we restrict the sample to observations where the BSA is in charge of the financial audit and find a negative but non-significant coefficient on *SUSPECT_BSA*. In Column 2, we run the analysis with the full sample and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.013; t-statistics = –1.94). In Column 3, we use entropy balancing and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.012 t-statistics = –1.88). In Column 4, we run a propensity score matching analysis, and find a negative but not-significant coefficient on *SUSPECT_BSA* (coeff: –0.019; t-statistics = –1.56). We then estimate a Heckman (1979) two-stage model. Column 5 displays results of the first stage and find a positive and significant coefficient on *BSA_SOUTH* (coeff: 1.797; z-statistics = 18.72) and *HIGH_CASH_IND* (coeff: 0.182; z-statistics = 2.17). In Column 6, we show results of the second stage and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.012; t-statistics = –1.86).

In untabulated analysis, we use a different proxy of financial reporting quality, the standard deviation of the residuals from the Dechow and Dichev (2002) model. Data requirements for this analysis reduce the sample to 50,396 firm-year observations. When we restrict the sample to observations where the BSA is in charge of the financial audit (i.e. there is no external auditor) we find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.003 t-statistics = –1.97); while when we run the analysis with the full sample and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.002; t-statistics = –1.73), which represents an 18.18-percent

decrease in *SRESID* over the sample of firms not audited by a *SUSPECT BSA* (0.002/0.011). We also find consistent results when we use the entropy balance, propensity score matching, and Heckman two stage model, which further corroborates our main findings.

---------- *Table 4 about here*----------

Results of Tax Restatements Model

Next, we examine a measure of audit quality in the tax area, i.e., tax-related restatements. We expect the coefficient of *SUSPECT_BSA* to be negative if the financial statements of firms serviced by a suspect BSA are of higher quality in the tax area. Table 5 displays results. In Column 1, we restrict the sample to observations where the BSA is in charge of the financial audit and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.096; z-statistics = –2.51), which suggests that the probability of restating tax expense decreases in the presence of a *suspect* BSA. In Column 2, we run the analysis with the full sample and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.074; z-statistics = –2.08), which implies that a connection between a member of a BSA and OCG is associated with a 12.5-percent decrease in the unconditional probability of reporting a tax restatement (from 7.2-percent to 6.3-percent).

We repeat the same diagnostic tests about potential bias in the matching of client-BSA members. In Column 3, we use entropy balancing and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.084 z-statistics = –2.40). In Column 4, we run a propensity score matching analysis, and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.123; z-statistics = –2.71). We then estimate a Heckman (1979) two-stage model. In Column 5, we show results of the first stage and find a positive and significant coefficient on *BSA_SOUTH* (coeff: 1.805; z-statistics = 18.86) and *HIGH_CASH_IND* (coeff: 0.183; z-statistics = 2.18), which

suggests that both instruments are good predictors of the presence of a suspect member on the BSA. In Column 6, we show results of the second stage and find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.080; z-statistics = –2.22). These findings show that clients audited by *suspect* BSAs report comparatively less tax-related restatements, which provides additional evidence that financial statements audited by suspect BSA are of comparatively higher quality in the tax area.

---------- *Table 5 about here*----------

Altogether, our results document that clients audited by accountants with connections to OCG show comparatively higher quality financial statements as evidenced by less small profits, lower levels of discretionary revenues, and less tax-related restatements. These results are suggestive that the Mafia is able to hire high-quality, skillful accountants, based on the work of these accountants in their role as BSA.

Additional Analyses

Modified Audit Opinions Model

To further examine the association between suspect BSA and audit quality, we use a direct measure of audit quality, Modified Audit Opinion (MAO) which is often used in international studies (DeFond, Raghunandan, and Subramanyam 2002). A higher likelihood of a modified report is viewed as evidence that the auditor is independent of the client, given that clients do not want to receive such reports as they prefer a clean, unmodified one. We estimate the following model:

$$\begin{aligned} Pr(MAO_{i,t} = 1) = {} & +\beta_0 +\beta_1 SUSPECT\_BSA_{i,t} +\beta_2 NON\_BIG4_{i,t} + \beta_3 BIG4_{i,t} \\ & +\beta_4 SUSPECT\_FIRM_{i,t} +\beta_5 TENURE\_BSA_{i,t} +\beta_6 SIZE_{i,t} \\ & + \beta_7 ROA_{i,t} +\beta_8 LEVERAGE_{i,t} + \beta_9 SALES\_GROWTH_{i,t} \\ & + \beta_{10} CFO_{i,t} + \beta_{11} LOSS_{i,t} +\beta_{12} PPE\_GROWTH_{i,t} \\ & + \beta_{13} LAG\_ACCRUALS_{i,t} + \beta_{14} NEG\_EQUITY_{i,t} \\ & +\beta_{15} BOARD\_SIZE_{i,t} +\beta_{16} AGE_{i,t} +\beta_{17} DUAL_{i,t} \\ & +\beta_{18} FAMILY\_FIRM_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (3)$$

Where the dependent variable *MAO* is an indicator variable equal to one if the BSA issues a modified audit opinion, which includes unqualified opinions with explanatory notes, qualified, disclaimed, and adverse opinions, and zero if clean (Bianchi 2018). We obtain this information from the section of the financial statements that contains the BSA report. *SUSPECT_BSA* is our test variable and is described in Equation 1. In this model, we add two control variables to capture financial distress: *LOSS* is an indicator variable equal to one if the firm has experienced a loss in year t, and zero otherwise, and *NEG_EQUITY* is an indicator variable equal to one if the company has negative equity value at time t, zero otherwise. We include year and industry fixed effects, and we cluster robust standard errors by firm to correct for serial dependence (Petersen 2009). All the other variables are described in Equation (1) and (2).

Managers have incentives to pressure auditors to issue a clean opinion because a modified opinion might impose costs on the client (e.g., higher interest cost). If BSA members do not succumb to this pressure, we predict that the coefficient of *SUSPECT_BSA* should be positive, suggesting that BSAs with connections to OCG show comparatively higher levels of independence. Table 6 displays results of this analysis. As we explained above, modified audit opinions are not available in a machine-readable form, therefore we hand-collected this information from the financial statements only for the propensity score matched sample that we employed in the previous analysis (see Table 1 for details). We find a positive and significant coefficient on *SUSPECT_BSA* (coeff: 0.180; z-statistics = 2.12), which implies that a connection between a member of a BSA and OCG is associated with a 1.8-percent increase in the unconditional probability of issuing a modified audit opinion (from 5.7-percent to 6.7-percent). In Column 2, we drop observations when the modified opinion is unqualified with explanatory notes and find consistent results. Overall, this analysis complements our findings from our financial

reporting quality models as it suggests that suspect BSAs show comparatively higher levels of independence, resulting in audit services of higher quality.

---------- *Table 6 about here*----------

Audit Fees

Our tests show that clients serviced by BSA connected to OCG report fewer small earnings, exhibit lower levels of discretionary revenues, report less tax-related restatements, and have a higher frequency of modified audit opinions. In this section, we address the question whether clients serviced by suspect BSAs are willing to pay a premium for their service. As anticipated above, we hand-collected from the financial statements available in readable format information about fees charges by the BSA for the firms included in the propensity score matched sample (see Table 1 for details). We run Equation 3 for this analysis.

The dependent variable, *LINFEES*, is the natural logarithm of BSA fees. Table 7 displays results of this analysis. We find a positive and significant coefficient on SUSPECT_BSA (coeff: 0.019; t-statistics = 1.97), which suggests that clients perceive as valuable BSA members with connections to OCG, and as a result, are willing to pay a 1.9-percent premium for their services.

---------- *Table 7 about here*----------

Suspect Firms and Suspect BSA

Bianchi et al. (2021) use data from the AISI database and examine how connections to OCG affect different performance-related outcomes. They find that firms with connections to OCG show lower profit margins, are more likely to file for bankruptcy, and show lower quality financial reporting (as evidenced by higher levels of abnormal accruals and higher probability of reporting a tax-related restatements). In all our models we control for *SUSPECT_FIRM,* hence our main findings on *SUSPECT_BSA* have to be interpreted as incremental to the presence of directors and

shareholders allegedly connected to OCG. To rule out the possibility that *SUSPECT_FIRM* might be viewed as a confounding factor in our models, i.e., our results might be driven by client specific characteristics rather than BSA specific characteristics, we partition the sample by *SUSPECT_FIRM* and *SUSPECT_BSA* and examine differences in means between the four subsamples that result from our partition. Specifically, we are interested in two subsamples: (*i*) when a firm does not have any board member or shareholder allegedly connected to OCG (*SUSPECT_FIRM=0*) and (*ii*) when a firm is not serviced by a suspect BSA (*SUSPECT_BSA=0).*

Table 8 displays this analysis. Panel A shows univariate tests. We find that non-suspect firms serviced by a suspect BSA report fewer small profits (p-value < 0.10), report less tax-related restatements (p-value < 0.01), receive more modified audit opinions (p-value < 0.01), and pay a fees premium (p-value < 0.01). When examining the subsample of firms not serviced by a suspect BSA, we find that suspect firms show higher probability of reporting small earnings and tax-related restatements (p-value < 0.01), which is consistent with results in Bianchi et al. (2021).

Panel B shows the multivariate analysis. For the subsample of non-suspect firms, in Column 1 the dependent variable is *SMALL* and we find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.084; z-statistics = –2.13); in Column 2 the dependent variable is *DREV* and we find a negative although not significant coefficient on *SUSPECT_BSA* (coeff: –0.011; t-statistics = –1.54); in Column 3 the dependent variable is *TAX_REST* and we find a negative and significant coefficient on *SUSPECT_BSA* (coeff: –0.064; z-statistics = –1.67); in Column 4 the dependent variable is *MAO* and we find a positive and significant coefficient on *SUSPECT_BSA* (coeff: 0.188; z-statistics = 2.02). For the subsample of firms serviced by non-suspect BSA, we find a positive coefficient although not significant on *SUSPECT_FIRM* in Column 1 (*SMALL*) and Column 3 (*TAX_REST*). In Column 4, the dependent variable is *LNFEES* and we find a negative

and significant coefficient on *SUSPECT_FIRM* (coeff: –0.032; t-statistics = –1.68), which suggests that suspect firms pay comparatively lower fees to their BSAs than non-suspect firms.

Overall, this analysis suggests that, all else equal, BSA specific characteristics rather than client specific characteristics drive our main findings.

---------- *Table 8 about here*----------

Placebo Test

To rule out the possibility that our results are influenced by confounding variables that may lead to bias and a spurious relationship between *SUSPECT_BSA* and our proxies of financial reporting quality (including *MAO* and *LNFEES*), we run a placebo test where we create a random indicator variable with the same distribution characteristics of *SUSPECT_BSA* and run Equation 1. We do not find any significant coefficients on the random indicator variable that substitutes *SUSPECT_BSA,* which suggests that our results are not affected by spurious relationships.

Cross-sectional tests

We run additional tests to exploit cross-sectional variation in our sample. Table 9 displays results from these analyses. In Panel A, we split the sample by cash-intensity. Specifically, we create an indicator variable, *CASH_INTENSE,* which is equal to one if a firm is above the 75th percentile of the yearly distribution of cash holdings (scaled by total assets). We find a negative and significant coefficient on *SUSPECT_BSA* in Columns 3 (*TAX_REST*), while we find a positive and significant coefficient on *SUSPECT_BSA* in Columns 4 (*MAO*) and 5 (*LNFEES*), which shows that cash intensive firms serviced by a suspect BSA show lower tax-related restatements, have a higher frequency of modified audit opinions, and are willing to pay their BSAs 2.3-percent premium.

In Panel C, we partition the sample by firm's location, i.e., within and outside the province of Milan which is the capital of the Lombardy region. When examining firms located in Milan, we find a negative and significant coefficient on *SUSPECT_BSA* in Columns 1 (*SMALL*) and 2 (*DREV*), which shows that these firms engage less in earnings management practices as evidenced by less small earnings and lower discretionary revenues. When firms are located outside the province of Milan, we find a negative and significant coefficient on *SUSPECT_BSA* in Columns 3 (*TAX_REST*), while we find a positive and significant coefficient on *SUSPECT_BSA* in Column 5 (*LNFEES*), which suggests that firms located outside the Milan province and serviced by a suspect BSA exhibit less tax related restatements and pay comparatively higher fees.

---------- *Table 9 about here*----------

VI. Conclusion

This study provides indirect evidence that organized crime groups (OCG) are able to hire skillful accountants. To do this we use a sample of Italian private firms that engage three accountants as their Board of Statutory Auditors (BSA) to jointly audit their financial statements, and a database of criminal records of individuals investigated for alleged Mafia-related crimes. We hypothesize and find that non-OCG clients serviced by accountants connected to criminal organizations have higher quality financial statements, as evidenced by reporting fewer small earnings, lower levels of discretionary revenues and fewer tax restatements, receive more modified audit opinions, and pay higher fees, relative to those firms whose accountants on their BSA have no Mafia connections.

The results are robust to controls for selection bias, to other determinants of auditor expertise, direct connections of directors and shareholders to OCG, and corporate governance mechanisms that can influence auditor choice and audit quality (e.g., family ownership). Despite

the potential downside an accountant may have due to Mafia connections, our results suggest that the Mafia is able to hire good accountants that provide high-quality services, thereby creating value for their private clients in their work as a BSA. However, our research cannot answer the question of why these seemingly "good" accountants choose to work with the Mafia in the first place.

Our study is subject to a number of caveats. First, we acknowledge that the matching of firms and accountants forming a BSA is not random, therefore we cannot identify the causal effect of a suspect BSA on the average firm; however, in our empirical tests we provide a battery of econometric models to address potential selection bias. Second, findings from our sample of accountants with connections to Italian criminal organizations may not be generalizable to other organized crime groups (e.g., the Russian Mafia, Mexican Cartels or the Chinese Triads). Despite some unique features of the Italian environment, this study overcomes data limitations in other institutional settings and can be useful for regulators interested in understanding the role of professional service providers in the criminal organizations' ecosystem (e.g., EU Directive 2005/60/EC on money laundering and terrorism financing). Future research might seize this opportunity and further explore the effect on firm related outcomes of other professionals' connections (e.g., attorneys and financial advisors) to criminal organizations.

Furthermore, we do not have historical data in machine-readable form about the work affiliation of all accountants in our sample, therefore we cannot determine if the Mafia is able to hire the best available accountants. We know, for example, it is unlikely they can hire Big 4 accountants. However, our analyses do show that those non-Big 4 accountants with Mafia ties are better quality accountants than other non-Big 4 accountants in our sample, based on what we observe about their work as a BSA for their non-Mafia clients. Despite this limitation, our findings are of general interest because non-Big 4 accountants service the majority of firms (private and

public) in the European Union and represent about 96% of total accounting firms (Bianchi et al. 2020).

Finally, the results are perhaps not surprising given that some criminal groups, like the Mafia, are deeply embedded in local culture. Still, in term of social welfare, it is disheartening the Mafia can hire seemingly good accountants who appear to suffer no adverse reputation effects from their Mafia ties. An implication of our study is that current policies aimed at preventing the activities of OCG also need to target outside professionals such as accountants who facilitate the criminal activities of these groups.

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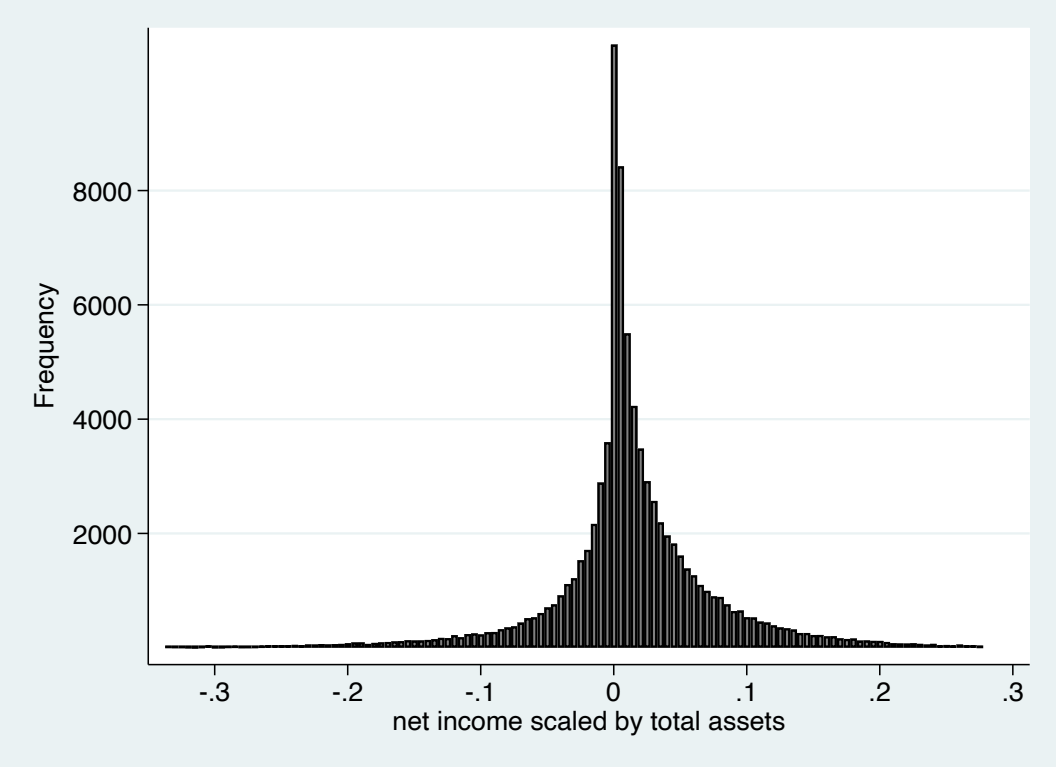
Figure 1
Distribution of Reported Profits



This figure illustrates the distribution of reported profits divided by total assets. The distribution range is from -33% to 28% and the intervals widths are 0.5%.

Table 1
Sample Selection

	Number of Observations
Full Sample	
Total firm-years headquartered in Lombardy available in AIDA database	133,789
Less:	
No audited financial statements	*(9,461)*
No governance data	*(3,825)*
Incomplete financial data	*(33,927)*
(1) Number of observations for main models	86,576
Propensity Score Matched Sample	
Cases involving at least one suspect BSA member	6,871
Less cases for which unavailable audit opinions and audit fees	(1,485)
Number of treatment firm-year observations	5,386
Number of control firm-year observations	5,386
(2) Final Propensity Score Matched Sample	10,772

Table 2
Panel A: Descriptive Statistics

VARIABLE	N	mean	p50	Min	max	sd
SMALL	86,576	0.154	0.000	0.000	1.000	0.360
DREV	86,576	-0.000	0.006	-1.287	1.124	0.733
TAX_RESTAT	86,576	0.071	0.000	0.000	1.000	0.257
MAO	10,772	0.062	0.000	0.000	1.000	0.241
LNFEES	10,772	9.736	9.762	8.160	11.088	0.615
SUSPECT_BSA	86,576	0.079	0.000	0.000	1.000	0.270
SUSPECT_FIRM	86,576	0.126	0.000	0.000	1.000	0.332
NON BIG4	86,576	0.064	0.000	0.000	1.000	0.245
BIG 4	86,576	0.113	0.000	0.000	1.000	0.317
TENURE_BSA	86,576	3.175	3.000	0.000	7.000	2.193
SIZE	86,576	9.410	9.316	6.409	12.780	1.158
LEVERAGE	86,576	0.194	0.142	0.000	0.757	0.199
CFO	86,576	0.034	0.028	-0.485	0.466	0.123
ROA	86,576	0.033	0.021	-0.363	0.407	0.102
LAG_ACCRUALS	86,576	-0.015	-0.019	-0.480	0.542	0.139
LOSS	86,576	0.290	0.000	0.000	1.000	0.454
CFO_VOL	86,576	0.091	0.051	0.002	0.764	0.120
SALES_VOL	86,576	0.207	0.117	0.007	1.990	0.294
PPE_GROWTH	86,576	0.120	-0.035	-0.933	6.189	0.863
SALES_GROWTH	86,576	0.047	0.013	-0.942	2.899	0.426
BOARD_SIZE	86,576	3.297	3.000	1.000	9.000	1.785
AGE	86,576	3.126	3.258	1.386	4.443	0.673
DUAL	86,576	0.227	0.000	0.000	1.000	0.419
FAMILY_FIRM	86,576	0.477	0.000	0.000	1.000	0.499
INTANGIBLE	86,576	0.031	0.005	0.000	0.441	0.070
CH_RECEIVABLE	86,576	0.014	0.003	-0.381	0.598	0.134
PAYABLE	86,576	0.570	0.606	0.016	1.032	0.251
R/E	86,576	0.027	0.000	-0.258	0.534	0.105
DEPRECIATION	86,576	0.029	0.022	0.000	0.143	0.027
WAGES	86,576	0.163	0.126	0.000	0.923	0.162
HIGH_CASH_IND	86,576	0.872	1.000	0.000	1.000	0.334

Panel B: Differences in means: non-suspect BSA vs Suspect BSA

Variable	Non-suspect	Suspect BSA	Difference	t-stat		Non-suspect	Suspect BSA
SMALL	0.154	0.147	0.007	1.949	*	79,705	6,871
DREV	0.001	-0.012	-0.166	1.735	*	79,705	6,871
TAX_RESTAT	0.072	0.063	0.009	2.871	***	79,705	6,871
MAO	0.056	0.068	-0.013	-2.717	***	5,386	5,386
LNFEES	9.725	9.747	-0.022	-1.847	*	5,386	5,386
SUSPECT_FIRM	0.124	0.149	-0.025	-5.873	***	79,705	6,871
NON BIG4	0.065	0.056	0.009	2.936	***	79,705	6,871
BIG 4	0.114	0.099	0.016	3.966	***	79,705	6,871
TENURE_BSA	3.173	3.190	-0.017	-0.611		79,705	6,871
SIZE	9.408	9.443	-0.035	-2.429	**	79,705	6,871
LEVERAGE	0.194	0.199	-0.005	-1.945	*	79,705	6,871
CFO	0.034	0.034	0.000	-0.206		79,705	6,871
ROA	0.033	0.032	0.000	0.071		79,705	6,871
LAG_ACCRUALS	-0.015	-0.015	0.001	0.336		79,705	6,871
LOSS	0.290	0.295	-0.005	-0.894		79,705	6,871
PPE_GROWTH	0.121	0.110	0.011	1.047		79,705	6,871
SALES_GROWTH	0.047	0.051	-0.004	-0.658		79,705	6,871
BOARD_SIZE	3.293	3.345	-0.052	-2.313	**	79,705	6,871
AGE	3.128	3.111	0.017	1.995	**	79,705	6,871
DUAL	0.227	0.230	-0.003	-0.566		79,705	6,871
FAMILY_FIRM	0.477	0.485	-0.008	-1.287		79,705	6,871
INTANGIBLE	0.030	0.034	-0.004	-4.189	***	79,705	6,871
HIGH_CASH_IND	0.873	0.868	0.005	1.165		79,705	6,871

(*continued on next page)*

Table 2 – (continued)

Panel C: Correlation Matrix

	VARIABLES	1	2	3	4	5	6	7
1	SMALL	1						
2	DREV	0.0045	1					
3	TAX_RESTAT	-0.0074*	-0.0090*	1				
4	SUSPECT_BSA	-0.0055	-0.0047	-0.0098*	-0.0092*	1		
5	SUSPECT_FIRM	0.0134*	-0.0029	0.0171*	-0.0158*	0.0200*	1	
6	NON BIG4	-0.0159*	-0.0016	0.0188*	-0.0244*	-0.0100*	0.0279*	1
7	BIG 4	-0.0868*	-0.0154*	0.0814*	-0.0393*	-0.0135*	0.0213*	-0.0933*
8	TENURE_BSA	0.0039	-0.0018	0.0247*	-0.0294*	0.0021	-0.0129*	0.0209*
9	SIZE	0.0049	-0.0087*	0.1373*	-0.0397*	0.0083*	0.0761*	0.0837*
10	LEVERAGE	0.1642*	0.0047	-0.0096*	-0.0347*	0.0066*	0.0588*	0.0006
11	CFO	-0.0231*	-0.0209*	-0.002	0.0637*	0.0007	-0.0126*	-0.0022
12	ROA	-0.0823*	0.0033	-0.0106*	0.1842*	-0.0002	-0.0398*	-0.0184*
13	LAG_ACCRUALS	0.0200*	-0.0228*	0.0001	0.0250*	-0.0011	-0.0016	-0.0119*
14	LOSS	-0.0540*	-0.0008	0.0032	-0.1634*	0.003	0.0113*	0.0250*
15	PPE_GROWTH	-0.0185*	0.0291*	-0.0026	-0.0059*	-0.0036	0.0044	-0.0072*
16	SALES_GROWTH	-0.0063*	-0.0116*	0.0003	0.0525*	0.0022	0.0037	-0.0013
17	BOARD_SIZE	-0.0344*	-0.0068*	0.0478*	-0.0322*	0.0079*	0.0938*	0.0612*
18	AGE	0.0026	0.0047	0.001	0.0099*	-0.0068*	-0.0239*	-0.0514*
19	DUAL	0.0080*	-0.0026	0.0130*	0.0025	0.0019	0.0093*	0.0032
20	FAMILY_FIRM	0.0769*	0.0093*	-0.0521*	0.0576*	0.0044	-0.0317*	-0.1058*
21	INTANGIBLE	0.0074*	-0.002	0.0221*	-0.0448*	0.0142*	0.0201*	0.0521*
22	HIGH_CASH_IND	0.0080*	0.0005	-0.0019	0.0135*	-0.004	-0.0037	-0.0198*
23	NEG_EQUITY	-0.0553*	-0.0109*	0.0095*	-0.0735*	0.0008	0.0208*	0.0172*

	VARIABLES	8	9	10	11	12	13	14
9	SIZE	0.0561*	1					
10	LEVERAGE	-0.0367*	0.0586*	1				
11	CFO	-0.0162*	0.0381*	-0.0734*	1			
12	ROA	-0.0870*	0.0528*	-0.2475*	0.3675*	1		
13	LAG_ACCRUALS	-0.0324*	0.0204*	0.0712*	0.0251*	0.0616*	1	
14	LOSS	0.0460*	-0.0619*	0.1043*	-0.1878*	-0.3936*	-0.1133*	1
15	PPE_GROWTH	-0.0474*	-0.0008	0	0.0855*	0.0119*	-0.0324*	-0.0136*
16	SALES_GROWTH	-0.0706*	0.0621*	-0.0058*	0.0127*	0.1297*	0.0349*	0.0280*
17	BOARD_SIZE	-0.0001	0.2486*	-0.0767*	0.0336*	0.0258*	-0.0302*	-0.0009
18	AGE	0.1577*	-0.0158*	-0.0197*	0.0468*	0.0439*	-0.0381*	-0.0347*
19	DUAL	0.0195*	0.0767*	0.0454*	0.0136*	0.0062*	-0.0058*	-0.0170*
20	FAMILY_FIRM	-0.0062*	-0.2428*	0.2114*	-0.0088*	-0.0007	0.0322*	-0.0592*
21	INTANGIBLE	-0.0319*	0.0525*	0.0090*	0.0276*	-0.1151*	-0.0892*	0.1014*
22	HIGH_CASH_IND	0.0014	-0.0470*	0.0095*	-0.0217*	0.0140*	0.0337*	-0.0190*
23	NEG_EQUITY	0.0172*	-0.0239*	0.1005*	-0.1184*	-0.3132*	-0.0398*	0.1482*

	VARIABLES	15	16	17	18	19	20	21	22
16	SALES_GROWTH	0.0268*	1						
18	BOARD_SIZE	-0.0052	0.0161*	1					
18	AGE	-0.0032	-0.0823*	-0.0160*	1				
19	DUAL	-0.0021	-0.0054	0.1568*	0.0496*	1			
20	FAMILY_FIRM	0.0155*	-0.0236*	-0.2441*	0.2304*	0.0174*	1		
21	INTANGIBLE	-0.0042	0.0363*	0.0860*	-0.2247*	-0.0074*	-0.1435*	1	
22	HIGH_CASH_IND	0.0093*	0.0051	-0.0721*	0.0309*	0.0157*	0.0793*	-0.0938*	
23	NEG_EQUITY	-0.0085*	-0.0512*	-0.0143*	-0.0430*	-0.0136*	-0.0358*	0.0379*	-0.0097*

This table presents descriptive statistics for the variables used in the main analyses. Panel A shows descriptive for the whole sample. Panel B shows differences in means between firms serviced by a suspect BSA and firms serviced by a non-suspect BSA. Panel C shows results of correlation matrix, where a star indicates that the correlation is significant at the 0.05 level or better. Variable definitions are included in Appendix A.

Table 3

Suspect BSA and Small Profits

Dependent Variable:	NO EXT AUD	FULL SAMPLE	ENTROPY	PSM	FIRST STAGE	HECKMAN
SMALL	(1)	(2)	(3)	(4)	(5)	(6)
SUSPECT_BSA	-0.105**	-0.089*	-0.083*	-0.133**		-0.088*
	[-1.99]	[-1.78]	[-1.66]	[-2.02]		[-1.71]
NON BIG4		-0.297***	-0.179	-0.130	-0.075	-0.291***
		[-5.22]	[-1.43]	[-0.89]	[-1.28]	[-5.08]
BIG4		-0.907***	-0.899***	-0.920***	-0.102*	-0.898***
		[-14.14]	[-7.34]	[-5.66]	[-1.92]	[-13.98]
SUSPECT_FIRM	0.043	0.041	0.036	-0.006	0.085*	0.046
	[0.98]	[1.00]	[0.53]	[-0.07]	[1.95]	[1.11]
BSA_TENURE	0.015	0.004	-0.030	-0.034	0.070***	0.000
	[1.24]	[0.41]	[-1.20]	[-1.00]	[6.19]	[0.01]
SIZE	0.093***	0.097***	0.084***	0.112***	0.020	0.098***
	[6.00]	[6.74]	[3.59]	[3.37]	[1.38]	[6.95]
ROA	-2.052***	-1.874***	-1.915***	-2.228***	-0.018	1.605***
	[-18.00]	[-18.53]	[-10.59]	[-8.61]	[-0.15]	[24.24]
LEVERAGE	1.655***	1.621***	1.572***	1.651***	-0.041	-0.008
	[23.13]	[24.17]	[13.31]	[10.31]	[-0.54]	[-0.35]
SALES_GROWTH	0.000	-0.008	0.008	-0.014	0.004	-1.846***
	[-0.01]	[-0.36]	[0.20]	[-0.23]	[0.25]	[-18.47]
CFO	0.216**	0.217***	0.188	0.206	-0.004	0.225***
	[2.50]	[2.74]	[1.35]	[0.89]	[-0.07]	[2.86]
PPE_GROWTH	-0.067***	-0.068***	-0.093***	-0.048	-0.01	-0.068***
	[-4.93]	[-5.29]	[-4.11]	[-1.40]	[-1.49]	[-5.36]
LAG_ACCRUALS	0.201***	0.203***	0.105	0.173	-0.003	0.204***
	[2.71]	[2.93]	[0.92]	[0.92]	[-0.07]	[2.97]
BOARD_SIZE	-0.026***	-0.015*	-0.016	-0.016	0.012	-0.012
	[-2.67]	[-1.67]	[-1.06]	[-0.75]	[1.36]	[-1.38]
LAGE	-0.03	-0.025	-0.007	-0.086	-0.042*	-0.041*
	[-1.23]	[-1.11]	[-0.19]	[-1.61]	[-1.77]	[-1.85]
DUAL	-0.004	0.000	0.03	0.150**	0.005	0.004
	[-0.11]	[-0.00]	[0.53]	[2.05]	[0.16]	[0.13]
FAMILY_FIRM	0.197***	0.210***	0.219***	0.210***	0.017	0.209***
	[6.08]	[6.71]	[3.98]	[2.88]	[0.49]	[6.73]
BSA_SOUTH					1.805***	
					[18.86]	
HIGH_CASH_IND					0.183**	
					[2.18]	
IMR						-0.037
						[-0.47]
Constant	-2.209***	-2.248***	-2.123***	-2.320***	-1.806***	-2.632***
	[-9.49]	[-10.27]	[-6.37]	[-4.93]	[-8.51]	[-10.96]
Observations	71,254	86,576	86,576	10,772	86,433	86,433
Pseudo R-squared	0.038	0.046	0.045	0.051	0.056	0.043
Variance-Inflation-Factors:						
SUSPECT_BSA						1.05
IMR						1.05

This Table examines the association between *Suspect BSA* and the probability of reporting *Small Positive Earnings* (Caramanis and Lennox 2008). In Column (1) we exclude observations where shareholders appoint an external auditor. In Columns (2) we use the full sample. In Column (3) we show results of an entropy balancing analysis. In Column (4) we show results of a propensity score matched analysis. In Columns (5) and (6) we show results of a first stage and second stage, respectively, of a two-stage Heckman model. Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific and industry-specific fixed effects, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using clustered standard errors by firm.

Table 4
Suspect BSA and Discretionary Revenue

Dependent Variable:	NO EXT AUD	FULL SAMPLE	ENTROPY	PSM	FIRST STAGE	HECKMAN
DREV	(1)	(2)	(3)	(5)	(4)	(6)
SUSPECT_BSA	-0.002	-0.013*	-0.012*	-0.019		-0.012*
	[-0.37]	[-1.94]	[-1.88]	[-1.56]		[-1.86]
NON BIG4		-0.007	-0.004	-0.020	-0.073	-0.007
		[-0.95]	[-0.27]	[-0.88]	[-1.25]	[-0.93]
BIG4		-0.030***	-0.053**	-0.045	-0.103*	-0.030***
		[-2.58]	[-2.50]	[-1.24]	[-1.92]	[-2.59]
SUSPECT_FIRM	-0.008*	-0.005	-0.008	-0.030*	0.084*	-0.005
	[-1.89]	[-0.54]	[-0.77]	[-1.77]	[1.95]	[-0.50]
BSA_TENURE	-0.001	-0.002	0.004	0.016	0.070***	-0.001
	[-1.31]	[-0.92]	[0.46]	[1.45]	[6.14]	[-0.67]
SIZE	0.002	-0.001	-0.017***	-0.029**	0.020	-0.001
	[0.65]	[-0.28]	[-2.92]	[-2.17]	[1.39]	[-0.24]
ROA	0.093***	0.135***	0.117***	0.096	-0.021	0.136***
	[5.05]	[4.64]	[3.32]	[1.41]	[-0.17]	[4.65]
LEVERAGE	0.013*	0.024*	0.035*	0.047	-0.042	0.023*
	[1.74]	[1.92]	[1.92]	[1.51]	[-0.55]	[1.88]
SALES_GROWTH	-0.040***	-0.023**	-0.041***	-0.046**	0.005	-0.023**
	[-6.60]	[-2.47]	[-3.26]	[-2.22]	[0.34]	[-2.47]
CFO	-0.119***	-0.174***	-0.092**	-0.095	-0.006	-0.174***
	[-5.23]	[-5.06]	[-2.09]	[-1.13]	[-0.10]	[-5.05]
PPE_GROWTH	0.012***	0.027***	0.028***	0.035***	-0.01	0.027***
	[6.70]	[5.80]	[5.94]	[3.01]	[-1.47]	[5.79]
LAG_ACCRUALS	-0.094***	-0.119***	-0.108***	-0.006	-0.003	-0.119***
	[-6.34]	[-5.29]	[-3.36]	[-0.13]	[-0.06]	[-5.28]
BOARD_SIZE	0.000	-0.001	-0.002	0.005	0.011	-0.001
	[-0.11]	[-0.50]	[-0.93]	[1.01]	[1.27]	[-0.47]
LAGE	0.002	0.003	0.000	-0.014	-0.041*	0.003
	[0.82]	[0.83]	[-0.03]	[-1.37]	[-1.73]	[0.81]
DUAL	0.002	-0.004	-0.004	-0.014	0.006	-0.004
	[0.67]	[-0.79]	[-0.55]	[-1.10]	[0.18]	[-0.75]
FAMILY_FIRM	0.004*	0.003	-0.001	0.008	0.016	0.003
	[1.93]	[1.02]	[-0.18]	[0.78]	[0.45]	[1.02]
BSA_SOUTH					1.797***	
					[18.72]	
HIGH_CASH_IND					0.182**	
					[2.17]	
IMR						0.006
						[0.45]
Constant	0.051	0.043	0.135**	0.188	-1.826***	0.039
	[1.08]	[0.65]	[2.04]	[0.55]	[-8.41]	[0.51]
Observations	71,086	86,367	86,367	10,730	86,224	86,224
R-squared	0.006	0.003	0.006	0.014		0.003
Pseudo R-squared					0.055	
Variance-Inflation-Factors:						
SUSPECT_BSA						1.07
IMR						2.53

This Table examines the association between *Suspect BSA* and *Discretionary Revenues* (Stubben 2010). In Column (1) we exclude observations where shareholders appoint an external auditor. In Columns (2) we use the full sample. In Column (3) we show results of an entropy balancing analysis. In Column (4) we show results of a propensity score matched analysis. In Columns (5) and (6) we show results of a first stage and second stage, respectively, of a two-stage Heckman model. Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific and industry-specific fixed effects, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using clustered standard errors by firm.

Table 5
Suspect BSA and Tax-related restatements

Dependent Variable:	NO EXT AUD	FULL SAMPLE	ENTROPY	PSM	FIRST STAGE	HECKMAN
TAX_REST	(1)	(2)	(3)	(4)	(5)	(6)
SUSPECT_BSA	-0.096**	-0.074**	-0.084**	-0.123***		-0.080**
	[-2.51]	[-2.08]	[-2.40]	[-2.71]		[-2.22]
NON BIG4		0.067**	0.171**	0.189**	-0.075	0.072**
		[1.96]	[2.54]	[2.32]	[-1.28]	[2.08]
BIG4		0.117***	0.108*	0.030	-0.102*	0.120***
		[3.75]	[1.91]	[0.40]	[-1.92]	[3.77]
SUSPECT_FIRM	0.060**	0.035	0.004	-0.014	0.085*	0.032
	[1.99]	[1.27]	[0.09]	[-0.23]	[1.95]	[1.17]
BSA_TENURE	0.006	0.008	0.005	0.002	0.070***	0.005
	[0.73]	[1.08]	[0.27]	[0.10]	[6.19]	[0.61]
SIZE	0.189***	0.192***	0.204***	0.208***	0.020	0.191***
	[16.97]	[20.11]	[12.46]	[9.39]	[1.38]	[19.86]
ROA	-0.067	-0.089*	-0.103	-0.02	-0.041	-0.087*
	[-1.22]	[-1.77]	[-1.16]	[-0.17]	[-0.54]	[-1.73]
LEVERAGE	-0.004	-0.021	-0.063**	-0.137**	0.004	-0.02
	[-0.23]	[-1.26]	[-2.07]	[-2.52]	[0.25]	[-1.22]
SALES_GROWTH	-0.503***	-0.346***	-0.249	-0.185	-0.018	-0.354***
	[-4.55]	[-3.82]	[-1.60]	[-0.83]	[-0.15]	[-3.90]
CFO	-0.057	-0.038	-0.007	-0.174	-0.004	-0.035
	[-0.81]	[-0.65]	[-0.07]	[-1.11]	[-0.07]	[-0.60]
PPE_GROWTH	0.006	0.008	-0.012	0.018	-0.01	0.007
	[0.63]	[0.99]	[-0.80]	[0.85]	[-1.49]	[0.94]
LAG_ACCRUALS	0.019	0.045	0.041	-0.055	-0.003	0.043
	[0.34]	[0.93]	[0.51]	[-0.41]	[-0.07]	[0.89]
BOARD_SIZE	0.008	0.007	-0.002	0.002	0.012	0.007
	[1.24]	[1.29]	[-0.20]	[0.14]	[1.36]	[1.17]
LAGE	0.015	0.018	0.023	-0.007	-0.042*	0.02
	[0.85]	[1.16]	[0.90]	[-0.19]	[-1.77]	[1.28]
DUAL	0.021	0.017	-0.019	-0.026	0.005	0.016
	[0.86]	[0.79]	[-0.51]	[-0.51]	[0.16]	[0.74]
FAMILY_FIRM	-0.035	-0.032	-0.066*	-0.075	0.017	-0.033
	[-1.53]	[-1.47]	[-1.78]	[-1.52]	[0.49]	[-1.51]
BSA_SOUTH					1.805***	
					[18.86]	
HIGH_CASH_IND					0.183**	
					[2.18]	
IMR						-0.040
						[-0.64]
Constant	-3.385***	-3.360***	-3.408***	-3.376***	-1.806***	-3.268***
	[-20.11]	[-22.41]	[-14.91]	[-10.34]	[-8.51]	[-16.16]
Observations	71,254	86,576	86,576	10,772	86,433	86,433
Pseudo R-squared	0.028	0.042	0.048	0.049	0.056	0.042
Variance-Inflation-Factors:						
SUSPECT_BSA						1.05
IMR						1.05

This Table examines the association between *Suspect BSA* and *Tax-related Restatement* (Bianchi 2018). In Column (1) we exclude observations where shareholders appoint an external auditor. In Columns (2) we use the full sample. In Column (3) we show results of an entropy balancing analysis. In Column (4) we show results of a propensity score matched analysis. In Columns (5) and (6) we show results of a first stage and second stage, respectively, of a two-stage Heckman model. Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific and industry-specific fixed effects, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using clustered standard errors by firm.

Table 6
Suspect BSA and Modified Audit Opinions

Dependent Variable: MAO	PSM	NO UNQUALIFIED OPINIONS
	(1)	(2)
SUSPECT_BSA	0.180**	0.348*
	[2.12]	[1.93]
NON BIG4	-0.007	-0.142
	[-0.06]	[-0.58]
BIG4	-0.040	0.557*
	[-0.23]	[1.86]
SUSPECT_FIRM	0.476***	0.550*
	[3.59]	[1.89]
BSA_TENURE	-0.115***	-0.294***
	[-3.20]	[-4.98]
SIZE	0.102**	-0.014
	[2.51]	[-0.17]
ROA	-4.285***	-5.655***
	[-7.29]	[-5.31]
LEVERAGE	0.430**	0.555
	[2.08]	[1.40]
SALES_GROWTH	-0.183*	-0.607**
	[-1.67]	[-2.56]
CFO	0.652*	0.661
	[1.78]	[0.99]
LOSS	0.457***	0.704***
	[4.71]	[3.47]
PPE_GROWTH	0.033	-0.2
	[0.76]	[-1.59]
LAG_ACCRUALS	-0.339	-1.024*
	[-1.12]	[-1.70]
NEG_EQUITY	0.942***	1.352***
	[4.41]	[4.03]
BOARD_SIZE	0.007	-0.088*
	[0.28]	[-1.65]
LAGE	-0.202***	0.072
	[-3.27]	[0.54]
DUAL	0.08	0.254
	[0.76]	[1.22]
FAMILY_FIRM	-0.248**	0.022
	[-2.46]	[0.11]
Constant	-3.094***	-2.996***
	[-4.96]	[-2.59]
Observations	10,772	9,384
Pseudo R-squared	0.127	0.205

This Table examines the association between *Suspect BSA* and *Modified Audit Opinions (MAO)*. We use a propensity score matched sample (see Table 1 for details). In Column 2 we exclude observations where the dependent variable is represented by "Unqualified opinions with explanatory notes". Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific and industry-specific fixed effects, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using robust standard errors by firm.

Table 7
Suspect BSA and Audit Fees

Dependent Variable: LNFEES	PSM
	(1)
SUSPECT_BSA	0.019**
	[1.97]
NON BIG4	-0.050**
	[-2.56]
BIG4	-0.014
	[-0.78]
SUSPECT_FIRM	-0.008
	[-0.58]
BSA_TENURE	0.017**
	[2.56]
SIZE	0.277***
	[54.53]
ROA	-0.059
	[-0.94]
LEVERAGE	-0.255***
	[-9.38]
SALES_GROWTH	-0.039***
	[-2.67]
CFO	-0.009
	[-0.19]
LOSS	-0.001
	[-0.06]
CFO_VOL	-0.009
	[-0.19]
SALES_VOL	-0.060***
	[-3.05]
PPE_GROWTH	-0.004
	[-0.62]
LAG_ACCRUALS	-0.016
	[-0.43]
NEG_EQUITY	0.142***
	[3.24]
BOARD_SIZE	0.034***
	[12.06]
AGE	-0.013
	[-1.62]
DUAL	-0.015
	[-1.30]
FAMILY_FIRM	-0.062***
	[-5.71]
Constant	7.196***
	[73.06]
Observations	10,772
R-squared	0.379

This Table examines the association between *Suspect BSA* and *BSA Fees*. We use a propensity score matched sample for this analysis. Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific and industry-specific fixed effects, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using robust standard errors by firm.

Table 8
Suspect Firms and Suspect BSA
Panel A: differences in means

SMALL

		SUSPECT FIRM		
		0	1	
SUSPECT BSA	0	0.153	**0.168**	-0.015***
	1	**0.146**	0.155	-0.010
		0.007*	0.013	

MAO

		SUSPECT FIRM		
		0	1	
SUSPECT BSA	0	0.055	**0.060**	-0.005
	1	**0.069**	0.064	0.005
		-0.014***	-0.004	

DREV

		SUSPECT FIRM		
		0	1	
SUSPECT BSA	0	0.001	**-0.004**	0.005
	1	**-0.009**	-0.028	0.018
		0.011	0.024	

FEES

		SUSPECT FIRM		
		0	1	
SUSPECT BSA	0	9.722	**9.745**	-0.023
	1	**9.733**	9.829	-0.096***
		-0.011***	-0.084	

TAX_REST

		SUSPECT FIRM		
		0	1	
SUSPECT BSA	0	0.070	**0.084**	-0.014 ***
	1	**0.062**	0.069	-0.008
		0.009***	0.015***	

Panel B: multivariate tests
Sub-sample of non-suspect firms (SUSPECT_FIRM=0)

VARIABLES	SMALL	DREV	TAX_REST	MAO	LNFEES
	(1)	(2)	(3)	(4)	(5)
SUSPECT_BSA	-0.084**	-0.011	-0.064*	0.188**	0.013
	[-2.13]	[-1.54]	[-1.67]	[2.02]	[1.24]
CONTROLS	YES	YES	YES	YES	YES
Observations	75,629	75,629	75,629	9,154	9,154
R-squared		0.003			0.338
Pseudo R-squared	0.047		0.049	0.134	

Sub-sample of firms serviced by non-suspect BSA (SUSPECT_BSA=0)

VARIABLES	SMALL	DREV	TAX_REST	MAO	LNFEES
	(1)	(2)	(3)	(5)	(4)
SUSPECT_FIRM	0.043	-0.005	0.04	0.043	-0.032*
	[1.45]	[-0.48]	[1.43]	[0.24]	[-1.68]
CONTROLS	YES	YES	YES		
Observations	79,705	79,705	79,705	5,386	5,386
R-squared		0.003			0.370
Pseudo R-squared	0.047		0.041	0.113	

This Table examines differences between suspect (and non-suspect) firms serviced by either suspect or non-suspect BSAs. Panel A shows univariate results of a 2-by-2 matrix where we partition our sample on SUSPECT_FIRM and SUSPECT_BSA. In each quadrant we report mean values of the variables of interest and outside the matrix we report differences between the subsamples we obtain. Panel B shows multivariate results for the two subsamples of interest (i) suspect firms (SUSPECT_FIRM=0) and (ii) firms serviced by non-suspect BSAs (SUSPECT_BSA=0). The models include all control variables, year-specific and industry-specific fixed effects, but for brevity these are not reported. Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively.

Table 9 – Additional Analyses

Panel A: Cash Intensive versus non-Cash Intensive companies

Cash Intensive companies

VARIABLES	SMALL	DREV	TAX-REST	MAO	LNFEES
	(1)	(2)	(3)	(4)	(5)
SUSPECT_BSA	-0.061	-0.007	-0.077**	0.178**	0.023**
	[-1.19]	[-1.37]	[-2.05]	[1.97]	[2.38]
CONTROLS	YES	YES	YES	YES	YES
Observations	78,244	78,244	78,244	9,741	9,741
R-squared		0.004			0.375
Pseudo R-squared	0.048		0.041	0.130	

Non-Cash Intensive companies

VARIABLES	SMALL	DREV	TAX-REST	MAO	LNFEES
	(1)	(2)	(3)	(4)	(5)
SUSPECT_BSA	-0.353*	-0.063	-0.035	-0.036	-0.055
	[-1.90]	[-1.21]	[-0.31]	[-0.12]	[-1.60]
CONTROLS	YES	YES	YES		
Observations	8,281	8,281	8,281	1,031	1,031
R-squared		0.004	0.052		0.430
Pseudo R-squared	0.046			0.229	

Panel B: Firms Headquartered versus non-Headquartered in the province Milan

Firms Located in the Milan province

VARIABLES	SMALL	DREV	TAX-REST	MAO	LNFEES
	(1)	(2)	(3)	(4)	(5)
SUSPECT_BSA	-0.134*	-0.028**	-0.016	0.169	0.01
	[-1.82]	[-2.27]	[-0.32]	[1.54]	[0.65]
CONTROLS	YES	YES	YES	YES	YES
Observations	43,681	43,681	43,681	5,068	5,068
R-squared		0.004	0.051		0.368
Pseudo R-squared	0.049			0.110	

Firms Located outside the Milan province

VARIABLES	SMALL	DREV	TAX-REST	MAO	LNFEES
	(1)	(2)	(3)	(4)	(5)
SUSPECT_BSA	-0.066	0.002	-0.138***	0.185	0.023*
	[-0.97]	[0.41]	[-2.84]	[1.32]	[1.85]
CONTROLS	YES	YES	YES		
Observations	42,895	42,895	42,895	5,704	5,704
R-squared		0.009	0.035		0.390
Pseudo R-squared	0.043			0.174	

This Table shows results of additional analyses. In Panel A we partition the sample on the median of *cash holdings (*scaled by total assets*),* identifying high versus low companies*.* In Panel B we partition the sample on *MILAN*. In all Panels, the dependent variables are *SMALL* (Column 1), *DREV* (COLUMN 2), *TAX-REST* (Column 3), *MAO* (Column 4) and *LNFEES* (Column 5). Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific, industry-specific, and county intercepts, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using robust standard errors by firm.

APPENDIX A –Variable Definitions

$SMALL_{i,t}$	Indicator variable equal to one if firm *i* reports a small profit in the range [0, +0.005] in year *t,* and zero otherwise (Dechow et al. 2012).
$DREV_{i,t}$	Discretionary revenues from the Stubben (2010) model calculated in year *t*.
$TAX\_REST_{i,t}$	Indicator variable equal to one if firm *i* restates tax expense from previous years in year *t,* and zero otherwise.
$MAO_{i,t}$	Indicator variable equal to one if the BSA of firm *i* issues a modified audit opinion (MAO) in year *t,* and zero otherwise.
$LNFEES_{i,t}$	Natural logarithm of total fees charged by the Board of Statutory Auditors (BSA) of firm *i* in year *t*.
$SUSPECT\_BSA_{i,t}$	Indicator variable equal to one if any member of the Board of Statutory Auditors (BSA) of company *i* in year *t* is under investigation for a white-collar crime, and zero otherwise.
$SUSPECT\_FIRM_{i,t}$	Indicator variable equal to one if any member of the Board of Directors of or shareholder in company *i* in year *t* is under investigation for a white-collar crime, and zero otherwise.
$TENURE\_BSA_{i,t}$	Tenure (number of years) of BSA of company *i* in year *t.*
$NON\ BIG4_{i,t}$	Indicator variable equal to one if company *i* in year *t* is audited by a NON Big4 external auditor.
$BIG4_{i,t}$	Indicator variable equal to one if company *i* in year *t* is audited by a Big4 external auditor.
$SIZE_{i,t}$	Natural logarithm of total assets in year *t*.
$LEVERAGE_{i,t}$	Leverage calculated as ((short-term debt + long-term debt)/ average total assets) of company *i* in year *t*.
$ROA_{i,t}$	EBIT divided by lagged total asset in year *t.*
$LOSS_{i,t}$	Indicator variable equal to 1 if year earnings are negative in year *t*, 0 otherwise.
$BOARD\_SIZE_{i,t}$	Number of board members in year *t.*
$AGE_{i,t}$	Natural logarithm of years since incorporation in year *t.*
$DUAL_{i,t}$	Indicator variable equal to one if the CEO of company *i* is also the Chair of the Board of Directors in year *t.*
$FAMILY\_FIRM_{i,t}$	Indicator variable equal to one if firm *i* in year *t* has a family controlling more than 25% of the share capital, and zero otherwise.
$SALES\_GROWTH_{i,t}$	One-year percentage growth in a firm's sales from year *t-1* to year *t*
$CFO_{i,t}$	Cash from operations ratio [(earnings + depreciation + change current liabilities-change current assets)/average total assets] of company *i* in year *t*.
$CFO\_VOL_{i,t}$	Standard deviation of a firm's cash flows from operations from year *t-2* through year *t.*
$SALES\_VOL_{i,t}$	Standard deviation of a firm's sales revenues from year *t-2* through year *t*
$PPE\_GROWTH_{i,t}$	One-year percentage growth in a firm's net PPE from year *t-1* to year *t.*
$LAG\_ACCRUALS_{i,t}$	Lagged total accruals in year *t.*
$INTANGIBLE_{i,t}$	Intangible assets divided by total assets in year *t*
$CH\_RECEIVABLE_{i,t}$	Change in Accounts receivable divided by total assets in year *t*
$PAYABLE_{i,t}$	Accounts payable divided by total assets in year *t*
$R/E_{i,t}$	Retained earnings divided by lagged total assets
$WAGES_{i,t}$	Annual ratio of total salaries and wages to total sales in year *t*.
$DEPRECIATION_{i,t}$	Annual depreciation and amortization expense to assets ratio in year *t.*
$BSA\_SOUTH_{i,t}$	Indicator variable equal to one if any member of the Board of Statutory Auditors (BSA) of company *i* in year *t* was born in one of the Southern regions where mafia organizations are rooted (Campania, Apulia, Calabria, and Sicily), and zero otherwise.
$BOARD\_SOUTH_{i,t}$	Indicator variable equal to one if any member of the Board of Directors of company *i* in year *t* was born in one of the Southern regions where mafia organizations are rooted (Campania, Apulia, Calabria, and Sicily), and zero otherwise.
$HIGH\_CASH\_IND_{i,t}$	Indicator variable equal to one if firm *i* in year *t* belongs to an industry which falls above the median of the distribution of total cash holdings scaled by total assets, and zero otherwise.
$MILAN_i$	Indicator variable equal to one if firm *i* is headquartered in the province of Milan, and zero otherwise.

Appendix B – Propensity Score Matched Analysis

Tests of differences between firms serviced by a suspect BSA and a PSM sample of firms serviced by a non-suspect BSA

Variable	Non-suspect	Suspect BSA	Difference	t-stat		Non-suspect	Suspect BSA
SMALL	0.164	0.146	0.018	2.608	***	5,386	5,386
DREV	0.002	-0.016	0.019	1.815	*	5,386	5,386
TAX_RESTAT	0.082	0.065	0.017	3.320	***	5,386	5,386
MAO	0.056	0.068	-0.013	-2.717	***	5,386	5,386
FEES	9.725	9.747	-0.022	-1.847	*	5,386	5,386
BIG4	0.103	0.108	-0.005	-0.816		5,386	5,386
SUSPECT_FIRM	0.151	0.148	0.003	0.405		5,386	5,386
BSA_TENURE	3.208	3.233	-0.025	-0.582		5,386	5,386
SIZE	9.540	9.541	-0.001	-0.058		5,386	5,386
LEVERAGE	0.199	0.199	0.000	-0.112		5,386	5,386
CFO	0.035	0.035	-0.001	-0.307		5,386	5,386
ROA	0.033	0.034	-0.001	-0.325		5,386	5,386
LAG_ACCRUALS	-0.015	-0.017	0.002	0.620		5,386	5,386
WAGES	0.162	0.163	0.000	-0.057		5,386	5,386
DPERECIATION	0.030	0.031	-0.001	-1.003		5,386	5,386
BOARD_SIZE	3.437	3.440	-0.003	-0.074		5,386	5,386
AGE	3.122	3.121	0.001	0.052		5,386	5,386
DUAL	0.241	0.240	0.001	0.090		5,386	5,386
FAMILY_FIRM	0.474	0.470	0.005	0.482		5,386	5,386

We show differences in means between firms serviced by *BSA Suspect* and a propensity matched sample of firms serviced by *non-Suspect BSA*. Variable definitions are included in Appendix A. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively. The models include year-specific, industry-specific, and county intercepts, but for brevity these are not reported. All *t*-statistics (in brackets) and p-values are calculated using clustered standard errors by firm.