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Owner Exposure Through Firm Disclosure

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ABSTRACT

We study whether firms avoid financial disclosures to preserve their owners' financial privacy. We find that firms named after their owner, for whom firm disclosure would more directly expose owner information, are more opaque. Eponymous owners prefer firm opacity when disclosure exposes sensitive owner information with social stigma, in rural and anti-capitalist areas, and in insider-oriented settings with high secrecy and distrust. When firms are forced to disclose, eponymous owners more frequently change their firms' names, and new firms are less frequently named after their founding owners. These findings indicate that owner-level privacy concerns dampen firm-level disclosure incentives.

Keywords: privacy cost; disclosure; private firms

JEL classification: D82; L51; M41

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I. INTRODUCTION

When firms have a strong tie with their owners, firm disclosures reveal proprietary information not only about the firm but also about firm owners. This tie is especially strong in private firms with one or a few owners, where the firm represents most of the owners' personal wealth and income. In such cases, firms' financial disclosures indirectly expose personal financial information, which is known to trigger serious privacy concerns for individuals (Milne, Pettinico, Hajjat, and Markos 2017) and widespread snooping by neighbors (Perez-Truglia 2020). Loss of privacy through firm disclosures is often cited as a key concern in deliberations on private firms' disclosure mandates (Barry 2006). However, unlike when firms use opacity to protect their competitive advantages (e.g., Glaeser 2018; Li, Lin, and Zhang 2018), it is not well understood when or whether owners employ firm opacity to protect their financial privacy.

Similar to consumers who are concerned about privacy, either for its own sake or for economic reasons (Stigler 1980; Posner 1981), owners may prefer financial privacy owing to norms surrounding social approval (Daughety and Reinganum 2010), safety concerns (Costa, Galdi, Motoki, and Sanchez 2016), or strategic reasons (Acquisti, John, and Loewenstein 2013). Cullen and Perez-Truglia (2020) find that most employees, especially high earners, do not want to share their salaries, which is consistent with a widespread "money taboo," —the idea that (sharing) financial information can be socially stigmatizing if it reveals high wealth or debt levels (Trachtman 1999). Although many agree to share their salaries anonymously (Glassdoor 2016), privacy concerns arise when information can be tied to a person. Hence, we study whether owners' privacy concerns reduce firms' financial transparency when the owner–firm tie is strong due to a firm being named after its owner. It is not obvious, however, how strongly owners' privacy

concerns matter for firms' disclosures (e.g., given the general public's low financial literacy) (Lusardi and Mitchell 2011; Minnis and Shroff 2017).

To shed light on the magnitude and breadth of owner privacy concerns' effects on firm transparency, we compare eponymous firms' financial disclosures to their non-eponymous peers in a sample of German private firms. We choose this approach for two reasons. First, we observe unique variation in the regulation of publicly available financial disclosures. While public disclosure of private firms' financial statements has been mandatory for decades in the European Union (EU), the mandate has only been enforced in Germany since 2006 (e.g., Bernard 2016). Before 2006, public disclosure was de facto voluntary and relatively rare because of the more secretive insider-oriented German economy, where firms establish close relationships with key parties by building a reputation and granting privileged information access (Leuz 2010), and public disclosure is used, if at all, to interact with prospective stakeholders. After 2006, all firms were forced to comply with the mandate and disclose financial information, but many had discretion regarding how much to disclose (e.g., the level of disaggregation). Hence, we explore whether eponymous owners prefer firm opacity along both the extensive and intensive margins.¹

Second, the German setting is well-suited because financial privacy norms are prevalent. Germany's cultural values translate into high cultural secrecy (e.g., Gray 1988) and the value of equality is strong as a norm (Elster 1989), which manifests in a distaste for earning more or less than peers (Fehr and Schmidt 1999; Fershtman, Gneezy, and List 2012). Furthermore, the money taboo is widespread (Prince and Wallsten 2020),² as evidenced by the stigma attached to both wealth ("money envy," or, in German, *Neidkultur*; Fershtman, Gneezy, and Hoffman 2011) and

¹ Minichilli et al. (2022) find that large Italian eponymous firms have higher reporting quality to improve their reputation with contracting parties that would often obtain information privately. Instead, we study public disclosure. ² A famous German saying goes, "You don't talk about money; you have it," (e.g., DW.com 2019), but the money taboo is not specific to Germany (e.g., it also exists in the U.S.; Wong 2018).

debt (*Schuld* is used both for "debt" and "guilt" in German; Moffitt 1983). This facilitates studying whether eponymous owners especially avoid disclosure when it reveals information connected with a social stigma.

Consistent with Belenzon, Chatterji, and Daley (2017), one-third of our sample is eponymous because the last name of the controlling owner is part of the firm's name. We find that eponymous firms have a higher propensity to avoid disclosure than their non-eponymous local industry peers along the extensive margin. We corroborate this result along the intensive margin, showing that eponymous firms disclose fewer items and less information on profitability. Our results are robust to the use of propensity score-matched samples and firm fixed effects. While eponymous firms' one-percent higher disclosure avoidance that we document is moderate, this magnitude is comparable with Bernard's (2016) finding, and, as discussed below, eponymy likely captures only one dimension of privacy concerns.

In attempting to understand when privacy concerns become more relevant, we explore variation in information sensitivity and the social environment. We show that eponymous firms tend to be more opaque when disclosure would reveal information linked to social stigma (e.g., high relative wealth), which is consistent with a fear of revealing wealth or standing out, and the relative income hypothesis (Duesenberry 1949; Cullen and Perez-Truglia 2020). In addition, consistent with Germany's social disapproval of, and aversion to, debt, privacy concerns are higher for eponymous owners of highly indebted firms. We further show that privacy concerns are stronger in environments where social approval and norms plausibly matter more. First, we find that eponymous owners avoid disclosure in areas where the far-left political party has more support, and anti-capitalist sentiment is stronger. Second, we find that eponymous owners increase non-disclosure in both rural and low-income-inequality areas, suggesting that the money taboo

may be stronger when people are more alike and familiar with one another (Fehr and Schmidt 1999). The latter result also confirms practitioners' conjecture that for firms "located in smaller cities and towns [...] the consequence of a loss of personal privacy can be especially large" (Barry 2006, 26). Overall, these results indicate that privacy concerns are more pronounced for more sensitive and socially stigmatized financial information, and in environments where income equality and reputation matter more.

To illustrate that these cross-sectional differences are not exclusive to Germany, we show that eponymous owners in an international sample prefer opacity under similar circumstances and related to similar items. We also use this sample to speak to institutional factors that likely increase privacy concerns. While parties in outsider economies tend to deal more at arm's length, protected by public information, parties in relationship-based insider economies like Germany tend to rely more on exclusive information sharing, which is likely rooted in insider economies' stronger culture of secrecy and privacy protection (Gray 1988; Hope, Kang, Thomas, and Yoo 2008; Leuz 2010).³ Hence, we expect eponymous owners in insider economies to have higher privacy concerns owing to stronger cultural secrecy and a greater reliance on relationships, where firm disclosure may increase owners' firm involvement and exposure.

We find that eponymous firms disclose less information in more insider-oriented economies (e.g., when capital markets are less developed and investor protection is weaker; La Porta, Lopez-De-Silanes, Shleifer and Vishny 1997). In addition, we find more disclosure avoidance where financial secrecy is higher and there is more distrust, and when company registry

³ Transparency can harm relationships between two parties by making it easier to switch to an outside third party, because transparency eases outsiders' adverse selection concern. Hence, public opacity makes it easier to sustain and benefit from exclusive relationships, e.g., through relationship-specific investments (Breuer, Hombach and Müller 2018). Our untabulated analyses also show that insider economies tend to have higher cultural secrecy and privacy protection regulation.

information is easier to access. These results indicate that owners' privacy concerns are elevated in insider-oriented settings and where disclosures are more likely to be (mis)used by the public.

While these results illustrate the breadth of eponymous owners' privacy concerns, we also show that eponymy captures only a portion of those concerns. For example, we find a similar preference for opacity among owners living closer to their firms, owners without a personal entry in the public telephone book, and older owners, who, according to prior literature based on consumer surveys, are much less willing to share personal financial information (Goldfarb and Tucker 2012). We complement this evidence by showing that, in their private interactions with rating agencies, eponymous firms are as likely as their non-eponymous peers to provide and/or be asked for more extensive financial information, which supports the idea that owners' privacy concerns relate to their firms' public disclosure decisions. Similarly, we find that, following the 2006 loss of financial privacy, eponymous owners were more likely to change their firms' names to preserve their privacy, and that newly founded firms were less likely to be eponymous.⁴

While these results reveal that privacy concerns likely provide a key explanation for eponymous firms' public disclosure avoidance, based on prior literature, we address two plausible alternative explanations for our main results. First, Belenzon et al. (2017) argue that eponymy signals entrepreneurial quality, which results in better performance. Hence, eponymous firms could avoid disclosures because eponymy reduces information demand or leads to higher proprietary costs (e.g., Botosan and Stanford 2005; Dedman and Lennox 2009; Kashmiri and Mahajan 2014). However, we show that quality differences do not drive our main results, because they are robust to the interaction of eponymy with profitability or credit ratings as quality proxies.

⁴ For eponymous firms' forced to disclose, we find little changes in firm fundamentals, potentially due to avoidance behavior or the consequences materializing at the owner level (as under intrinsic privacy preferences; Varian 2002; Lin 2022).

Second, eponymous firms could be more opaque because of agency conflict differences, as previous research documented for family firms (e.g., Ali, Chen, and Radhakrishnan 2007; Chen, Chen, and Cheng 2008; Anderson, Duru, and Reeb 2009). Again, we show that such differences do not drive our main results, because they are robust to focusing on subsamples, where all firms have controlling owners and/or owner-managers.

Our findings contribute to two strands of literature. First, we contribute to the voluntary disclosure literature (e.g., Beyer, Cohen, Lys, and Walther 2010) by showing that privacy concerns at the owner level reduce public disclosure at the firm level when firms' financials reveal their owners' information. Our finding that privacy concerns are driven by owner identifiability helps reconcile Minnis and Shroff's (2017) survey evidence with the personal tax reporting literature (Lenter, Slemrod, and Shackelford 2003; Hasegawa, Hoopes, Ishida, and Slemrod 2013; Bø, Slemrod, and Thoresen 2015; Perez-Truglia 2020) regarding when the general public might use disclosures. Our finding that privacy concerns matter more in insider economies points to an important connection between norms, culture, and the financial system, based on their mutual reliance on relationships (e.g., Rajan and Zingales 1998; Leuz 2010). These findings also inform policy debates on regulating private firm disclosures, such as mandating financial (e.g., as discussed by the SEC, Kiernan 2022) or beneficial owner disclosures (e.g., as recently occurred in the EU through the anti-money laundering directive).

Second, we contribute to the literature on the economics of privacy and social norms (Lindbeck, Nyberg, and Weibull 1999; Acquisti, Taylor, and Wagman 2016) based on our finding that the owners of closely held firms jointly optimize (and adjust) their own transparency and that of the firm when it becomes mandatory. Our results further add to the economics of privacy literature, which recognizes balancing private and public spheres, but speaks to consumer rather

than entrepreneurial privacy issues. Hence, our analyses of owners' breadth of privacy concerns add to studies that emphasize privacy concerns' context-dependence (e.g., Acquisti et al. 2013).

II. INSTITUTIONAL BACKGROUND

Private firms' public disclosure is regulated in the EU and Germany, especially as it pertains to limited-liability firms' financial statements, under the rationale that public disclosure of financials protects stakeholders (e.g., creditors) exposed to firms and their owners, whose liability is limited to the firms' assets and equity. Firms are classified into groups based on size (e.g., small, medium-sized, or large), for which the regulation prescribes minimum disclosure requirements (e.g., regarding financial statement components and their level of detail). However, the exact implementation of such regulation is country-specific.

In Germany, only medium-sized and large firms must disclose an income statement and prepare a management discussion and analysis section, while small firms are required to disclose only an abbreviated balance sheet along with notes.⁵ However, until 2006, the enforcement of this regulation was lax, to the extent that disclosure was de facto voluntary, and most firms chose to hide their financials (Bernard 2016; Breuer, Hombach, and Müller 2020). In 2006, after intense debate and under mounting pressure from the EU, Germany enacted changes that led to nearly full compliance of firms with the disclosure mandate, including mandatory publication in an electronic version of the Federal Gazette, fines that increased with prolonged non-compliance, and centralized enforcement. While most firms complied with the disclosure mandate post-2006, there is still substantial discretion along the intensive margin (e.g., whether to voluntarily provide an

⁵ A firm is classified as medium-sized if it exceeds the thresholds of any two of the three size criteria (approximately \notin 4 million in assets, \notin 8 million in revenues, and 50 employees) in two consecutive years. If it falls below these, it is considered small.

income statement or a detailed disaggregation of liabilities), because Germany, relative to other countries, prescribes low minimum disclosure requirements for most (small) firms.

Germany's institutional infrastructure, which is often characterized as an insider-oriented economy, is in large part responsible for the lax pre-2006 enforcement and the relatively low disclosure requirements. While parties deal at arm's length protected by public disclosure in outsider economies, information asymmetries tend to be resolved through private communication to foster and benefit from relationships, which is likely rooted in a more general culture of secrecy and privacy protection in insider economies (e.g., Gray 1988; Hope et al. 2008).⁶ Sharing information publicly in insider-oriented settings has limited benefits, since it hurts a firm's ability to sustain long-lasting relationships (Leuz and Wüstemann 2003; Breuer et al. 2018). While the stylized insider-outsider dichotomy is often used to distinguish between countries, it also applies to firms-larger (smaller) firms typically deal more at arm's length (based on relationships), relying on public (private) disclosures. Hence, surveys of (often smaller) private firms suggest that the key benefit of public disclosure is to mitigate information asymmetries ex ante (e.g., Arruñada 2011; Kitching, Kašperová, and Collis 2015; Minnis and Shroff 2017). That is, public firm disclosures are used to address adverse selection issues when forming business relationships (e.g., with customers or suppliers) (Akerlof 1970; Breuer, Hombach, and Müller 2020). In this vein, private firms' public disclosures play the role of "business cards" in Germany, and disclosures provide initial financial information (free of charge) for prospective stakeholders.

⁶ Consistent with the idea that insider-orientation and cultural secrecy are linked, we show in untabulated analyses that countries in the insider economies cluster identified by Leuz (2010) have higher cultural secrecy than outsider economies using the cultural secrecy measure of Hope et al. (2008) based on Hofstede's (1980) cultural values. Higher cultural secrecy in insider economies could plausibly also manifest in better privacy protection. Using two scorings of privacy protection and internet privacy by cyber security firms (Comparitech and BestVPN.com, respectively), we also show that insider economies tend to have higher levels of privacy protection.

Private firms weigh these benefits against public disclosure costs. Prior literature focuses primarily on competitive costs that arise from revealing proprietary information (e.g., Dedman and Lennox 2009; Bernard 2016). However, given that the typical private firm is relatively small (e.g., in Germany, 80 percent of firms had assets below €1 million in 2006), privacy concerns, frequently cited in deliberations on private firm disclosure regulation (e.g., Barry 2006), are more prevalent. While some firms doubt that general-interest parties would inspect financials (e.g., Minnis and Shroff 2017), Gassen and Muhn (2018) show that small, private firms perceive the costs arising from general-interest parties' inspections to be of similar magnitude to those arising from competitors. In addition, the widespread snooping in Norway, where personal tax records are publicly available (Perez-Truglia 2020), indicates that privacy concerns matter, especially those concerning personal financial information. Hence, we turn to eponymous firms where the owner– firm tie is apparent, and firm disclosures indirectly expose owners, to speak to the magnitude and breadth of privacy concerns.

Eponymy is an important feature in the landscape of German private firms. Today's last names evolved during medieval times and were often based on occupations and professions. For example, Müller, Schmidt, and Schneider, the three most common German last names, refer to the profession of millers, blacksmiths, and tailors, respectively. Most, if not all, of these occupations are rare in modern times, but the norm of associating last names with occupational or professional contexts is still apparent in Germany's firm-naming behavior. For example, 34 percent of Germany's firms are eponymous, which is the highest share across countries and much higher than the average 19 percent reported in Belenzon et al.'s (2017) European sample. Among German firms with controlling owners, 50 percent are eponymous. To make firm names distinctive within a region, a requirement by German law, it is also common to combine professions with last names in firm names (e.g., "Müller Car Dealership GmbH"). The frequent association of last names with the professional sphere is also consistent with the emphasis on reputation and long-lasting relationships in Germany's more insider-oriented economy mentioned above. Taken together with the mandatory disclosure framework's regulatory changes, the institutional features of the German private firm setting facilitate examining the effect of privacy concerns on firm disclosures by comparing the transparency of eponymous and non-eponymous firms.

III. RESEARCH DESIGN

Sample Selection

Our primary data source for financial and ownership information is Amadeus, a Bureau van Dijk (BvD) database widely used in studies of both public and private European firms (see Beuselinck, Elfers, Gassen, and Pierk 2021 for an overview). Unlike the lax enforcement of the requirement to disclose financial information, the requirement to disclose ownership information with local courts has been strictly enforced. Ownership data before 2006 are available on approximately 90 percent of firms, allowing us to identify eponymous firms and ensuring that our inferences are largely free from the confounding effects that would arise from the choice to disclose ownership.⁷

Following Bernard (2016), we build our sample beginning with all available limitedliability German firms on Amadeus's 2012 disc (release date: December 1, 2012), which includes a maximum of 10 historic (relative) fiscal year financial data observations per firm.

We restrict our sample period to include only one observation per firm, keeping the firmyear with fiscal year-end between December 31, 2006, and December 30, 2007, which is the first

⁷ Otherwise, in a counterfactual regime of voluntary ownership but mandatory financial disclosure, eponymous firms would plausibly be expected to be more transparent because eponymy often identifies not only the controlling but also the only owner(-manager) of a firm.

annual period during which the new enforcement regime was in effect. We exclude firms with no industry classification (North American Industry Classification System [NAICS] codes), location, and/or year of incorporation data. Furthermore, we limit our sample to limited liability firms incorporated before 2005, for which we can observe at least 90 percent of direct ownership by individuals, and data necessary to construct the control variables described in the Appendix, Table A.1. Our final sample comprises 253,580 unique firm observations. Figure 1 provides an overview of the number of firms meeting our sample selection criteria (N = 253,580) that disclosed for the first time in each year. Two sharp jumps are observed in the number of disclosing firms (in 2005 and 2006), with that in 2005 being driven by back-filing of prior-year comparative information from the 2006 financials. Hence, the difference between 2004 and 2005/2006 captures the enforcement reform effect, which led to nearly full compliance.

Empirical Strategy

To identify the effect of eponymy on disclosure avoidance, we estimate the following crosssectional linear probability model, which yields inferentially identical results to a probit model (untabulated), but allows for a more straightforward interpretation of interaction effects:

$$AVOIDANCE_i = \beta EPO_i + \gamma Controls_i + \delta_{c,j} + \varepsilon_i (1)$$

This model blends the research design of Belenzon et al. (2017), who study the performance of eponymous firms, with that of Bernard (2016), who studies disclosure avoidance around the enforcement shift in 2006. Along the extensive margin, we measure $AVOIDANCE_i$ of firm *i* through *No Disclosure*, an indicator variable with a value of 1 if the firm first appears in BvD's Amadeus database for its first fiscal year ending between December 31, 2005, and December 30, 2007, and 0 otherwise, in line with Bernard (2016). That is, we categorize firms as disclosure

avoiders if they filed their first financials in 2006 or 2007 (only after the disclosure mandate was strictly enforced).

Once firms had no choice regarding whether to disclose along the extensive margin because of the enforcement reform, we can exploit variation along the intensive margin. To this end, we employ two different measures for *AVOIDANCE* of firm *i*. We use the number of *#Undisclosed items* (as a log), which counts the number of undisclosed items on the BvD disc for each firm in their first disclosure year. That is, we count the number of financial statement items that a firm could have disclosed but chose not to. Since this measure is agnostic with respect to the type of information, as a second measure, we create an indicator variable (*Undisclosed net income*), which is equal to 1 if the firm does not disclose information on its profitability in BvD's *Dafne* database and 0 otherwise. While not all firms must disclose income as part of the equity account. However, not all firms report this item, because enforcement at the individual line-item level is relatively weak, and firms can report an alternative performance metric if they have already decided on the use of net income (e.g., retaining vs. paying it out) before disclosure, which practitioners mention as a common tool used so that net income does not have to be directly disclosed.⁸

Our main variable of interest is EPO_i , an indicator variable equal to 1 if the controlling (i.e., ownership larger than 50 percent) shareholder's last name is (part of) the firm name and 0

⁸ Prior to the decision on how to use net income/earnings, a German private firm would have to disclose the following equity accounts: (i) retained net income/earnings, which can be paid out after owners decide; (ii) net income/earnings carried forward from prior periods, which are directly available for distribution; (iii) net income/earnings, which are net income/earnings from the current period. If the firm (e.g., owners) decides how to use net income/earnings prior to disclosure, it can disclose (i) retained net income/earnings including the retained portion of (iii) net income/earnings from the current period. The remaining portion of (iii) net income/earnings from the current period not retained can be disclosed together with (ii) as a new position, which will be available for distribution. Haufe, for example, a finance software for small and medium-sized entities, mentions this as a way to avoid disclosing net income (Mertes 2022).

otherwise, as used by Belenzon et al. (2017).⁹ Importantly, Table A.2 shows that our inferences remain unchanged when defining *EPO* differently (e.g., if we use any direct shareholders' last names to define *EPO*, the number of eponymous owners, or the share of eponymous owners). Figure 2 shows the percentage of *EPO* firms by year of incorporation, which remains relatively constant over time.¹⁰

Following and extending Bernard (2016), throughout all regressions, we control for a vector of firm-level disclosure determinants, such as leverage, size, asset tangibility, cash holdings, firm age, ownership concentration, an indicator for whether sales revenue data are missing,¹¹ and industry concentration based on assets and the four-digit NAICS industry classifications. We measure all independent variables as of the firms' first financial statements. We compare the disclosure avoidance of eponymous firms relative to their non-eponymous local peers by including $\delta_{c,j}$ in Eq. (1), a fixed effect for each county *c* and industry *j* combination (very narrowly defined using three-digit industry classifications within the 400 German counties). We cluster standard errors at the county level.

IV. RESULTS

⁹ In line with Belenzon et al. (2017), we identify eponymous owners by (string-)matching the firm's name to the last name(s) of the direct owner(s). Put simply, we look for the last name of the controlling shareholder in the name of the firm. One example of an eponymous firm is Elektrotechnik Thimm GmbH, a manufacturing company from Mülheim an der Ruhr. As shown in Figure A1, this firm is controlled by Joachim Thimm, who has a 75% stake. Given that the firm has the controlling shareholders' surname in its name, our test variable (*EPO*) equals 1 in this case.

¹⁰ We use all available firms with incorporation years available on the 2012 AMADEUS disc. Hence, we can show *EPO* percentages for incorporation years that we exclude from our main analyses. Recall, we limit our main sample to limited liability firms that were incorporated before 2005, for which we can observe at least 90% of direct ownership by individuals.

¹¹ Because disclosing sales information is voluntary for the vast majority of sample firms, Bernard (2016) includes this dummy to control for proprietary disclosure costs. However, because this is an outcome variable of voluntary disclosure, we rerun our analyses excluding *NO SALES* and find similar (untabulated) results.

Descriptive Statistics

Panel A in Table 1 shows descriptive statistics for the main variables in our sample. Consistent with Belenzon et al.'s (2017) Germany data, 34 percent our sample's firms are eponymous (i.e., EPO = 1). The *No disclosure* rate is 88 percent, which is in line with prior studies investigating German firms' disclosure behavior (see, e.g., Bernard 2016; Breuer, Hombach, and Müller 2020; Breuer 2021) and with Figure 1, corroborating the notion that the public disclosure mandate was not enforced prior to 2006. Along the intensive margin, the number of items that could have been disclosed (i.e., 35) but were not (*#Undisclosed items*) ranges from approximately 15 (P10) to 25 (P90). Approximately 20 percent of the firms in our sample do not disclose information on profitability as part of the equity account in their balance sheets.

The firms in our sample are relatively small, with $\notin 250,000$ in total assets on average, of which 24 percent are invested in tangible assets and 56 percent are funded by debt. Of note, the average ownership concentration is very high (75 percent), and most firms have a controlling shareholder, as evidenced by a 50 percent ownership concentration at the 25th percentile. The firms have been in existence for an average of 10 years, and approximately 50 percent do not report sales. Consistent with Bernard's (2016) findings, industry concentration is low.

Eponymous Firms' Disclosure Avoidance

We argue that the loss of personal financial privacy associated with public disclosure of their firms' financial information is larger for eponymous than non-eponymous owners. Anecdotally, some trade registries explicitly advise entrepreneurs to keep in mind that firm data can lead to them personally.¹² Hence, we expect that eponymous owners would have a higher propensity to avoid

¹² See for example the Dutch trade registry website: <u>https://www.kvk.nl/advies-en-informatie/bedrijf-starten/een-bedrijfsnaam-kiezen/</u> (in Dutch)

disclosure. Table 2 shows the Eq. (1) result, which tests the association between disclosure avoidance and eponymy (i.e., *EPO*) along the extensive margin. Recall that we exploit the 2006 enforcement shift to measure *AVOIDANCE* as *No disclosure*. Columns (1) and (2) show that eponymous owners tend to avoid disclosing their firms' financials (p < 0.01). Since we estimate a cross-sectional linear probability model, the coefficient depicts the marginal effect, meaning that eponymous firms are approximately one percent less likely to disclose their financials. This result is comparable in magnitude to that of Bernard (2016) (Table 3, Columns [1] and [2] in his paper), who studies disclosure avoidance owing to the risk of product market predation. In addition, it is important to note that eponymy only captures a portion of privacy concerns, which can also differ depending on the type of information and environment in which the information would be revealed—something we explore in a later section.

We corroborate our previous finding along the intensive margin using *#Undisclosed items* and *Undisclosed net income* to measure *AVOIDANCE* in Columns (3) and (4). Once the German regime shifts from de facto voluntary to mandatory, we expect eponymous firms to reveal less financial information (especially related to profitability), as prior literature documents that firms have substantial discretion along the intensive margin (Breuer, Hombach, and Müller 2020). Accordingly, we show that eponymous firms disclose fewer items in their financial statements (Column [3]),¹³ especially on their profitability (Column [4]), than their non-eponymous local industry peers. These results are consistent with the evidence on disclosure avoidance along the extensive margin and highlight that information related to income is considered costly to disclose.

Our results are further strengthened by Column (5), which shows that our inferences remain similar when comparing eponymous firms to their propensity score-matched non-eponymous

¹³ We confirm these results in untabulated analyses using count models.

peers.¹⁴ As shown in Panel B of Table 1, matching improves the already reasonable covariate balance across eponymous and non-eponymous firms. Column (6) deviates from Bernard's (2016) cross-sectional research design, which relies on the observability of other firm-level variables, such as leverage and total assets, for all firms after the enforcement shift in 2006. Instead, we take advantage of ownership data available before 2006, which allows observing within-firm *EPO* variation over time and changes in disclosure.¹⁵ While we are unable to include the firm-level controls from Eq. (1) in this test, we include firm and year-fixed effects to control for time-invariant factors and time-variant common trends that drive disclosure. Since *EPO* can change as a consequence of owners changing their firms' names or from a change of firm ownership, we keep those firms that did not have a change in control during this period in our sample. Based on this panel, we confirm that eponymous owners are more likely to avoid disclosure of their firms' financials. To study heterogeneity in privacy concerns across eponymous owners and thereby shed light on the breadth of privacy concerns, we return to our main sample, shown in Columns (1) to (5).

Breadth of the Effect of Owner Privacy Concerns on Firm Disclosure

We examine the breadth of privacy's effect on disclosure by studying whether information type and the environment in which it is revealed influence understanding privacy concerns. We argue that personal financial privacy is an important issue in Germany, where there is a strong cultural norm that talking about money is taboo, presumably to avoid envy and social stigma. If financial

¹⁴ To ensure that we match on firm performance/quality we add *ROE* and *RATING* to the propensity score model. Our results are robust to their inclusion.

¹⁵ The definition of non-disclosure indicator in this specification tracks each firm over time and is equal to 1 if a firm discloses no financial information and 0 otherwise.

disclosure makes it easier for those in the local environment to learn about individuals' wealth and income, we would expect a stronger urge to avoid disclosure.

To test this prediction, we exploit two approaches in our cross-sectional tests. First, we investigate whether disclosure avoidance is more pronounced if it involves sensitive information that is socially stigmatized, by focusing on firms' indebtedness and their owners' relative wealth compared to their geographic peers. Then, we turn more broadly to the disclosure environment, exploiting regional characteristics that relate to social norms or approval, such as anti-capitalist sentiment, as well as a stronger need for privacy in rural neighborhoods.

Column (1) in Table 3 tests whether eponymous owners are more reluctant to disclose financial information conditional on their firm-related wealth (*EQUITY*). In line with this prediction, we find that the interaction term $EPO \times EQUITY$ is positive and significantly related to non-disclosure, indicating that eponymous owners prefer privacy and even more so in the case of higher levels of firm-specific wealth (while controlling for firm size).¹⁶

Next, we study whether an owner's wealth relative to their local peers affects disclosure avoidance. This prediction would be in line with Mas's (2017) results, which revealed that well-paid managers dislike public disclosure of their salaries. As an extreme example, it would also be in line with the evidence involving personal security, such as Brazilian firms' refusal to comply with CEOs' pay disclosures to avoid kidnappings (Costa et al. 2016). Here, *GAP* reflects the gap between the owner's firm-specific wealth (at book value) and the local disposable income. We expect owners who are relatively wealthier than their peers to be more likely to avoid disclosures. Column (2) of Table 3 reveals a positive and significant interaction term (*EPO* × *HIGH GAP*), in line with our prediction. The results also indicate that eponymous firms' disclosure avoidance is

¹⁶ Our results are robust to using the eponymous owner's direct percentage stake of common equity.

concentrated in firms where owners have relatively high wealth. These results are consistent with the assumption of a reluctance to stand out or reveal wealth and/or, more generally, a social stigma against wealth. In addition, the results are consistent with the salary opacity among high relative earners, as documented by Cullen and Perez-Truglia (2020),¹⁷ and with the relative income hypothesis (Duesenberry 1949), which predicts that utility depends both on personal income and income relative to others.¹⁸

However, privacy concerns rooted in revealing socially stigmatized financial information may be related not only to revealing (relatively) high wealth, but also to indebtedness. In fact, in Germany in particular, there is an aversion to debt, as evidenced by the relatively low consumer debt levels and use of credit cards. As mentioned earlier, this is also reflected in the word *Schuld*, which means both "debt" and "guilt" in German. Consequently, we expect eponymous owners whose firms are highly indebted to avoid disclosure. Accordingly, Column (3) of Table 3 includes an interaction between *LEVERAGE* and *EPO*. In line with our prediction, the interaction is positive and significant.¹⁹

Next, we focus more directly on local inequality and political sentiment. We expect that in areas with low inequality, owners would be more reluctant to show their wealth. For this purpose, we construct a variable that indicates whether a county's local income inequality is below the sample median (*LOW GINI*). We also expect owners to be less reluctant to show their wealth in

¹⁷ Other channels may be related to Blank (2012), who finds that public access tax records may enable friends, neighbors, and personal associates to investigate tax activities; or Card, Mas, Moretti and Saez, (2012), who found that pay transparency reduces employees' job satisfaction, implying that eponymous firms may eventually bear a cost from public disclosure when employees find out more about their owner's wealth. However, as discussed below, we do not find that eponymous firms forced to disclose their information experience significantly different trends in firm fundamentals.

¹⁸ There is ample evidence showing that individuals care about relative income, especially when they receive less than others; see, for instance, Card et al. (2012), and, most recently, Perez-Truglia (2020).

¹⁹ In untabulated analyses, we document that this result is plausibly unrelated to the risk of product market predation documented by Bernard (2016). The results are unchanged when interacting *LEVERAGE* with predation risk proxies.

areas that exhibit a more socialist political sentiment (*LEFTWING*), because people in such areas are typically opposed to the display of wealth or entrepreneurial activity more generally. *LEFTWING* measures the percentage of votes of the left-wing party (*Die Linke*) in Germany's 2005 federal elections. Column (4) of Table 3 interacts *EPO* with *LOW GINI* and reveals a positive and significant interaction effect (*EPO* × *LOW GINI*). Furthermore, Column (5) of Table 3 interacts *EPO* with *LEFTWING* and reveals a positive interaction between *EPO* × *LEFTWING*.

Finally, in Column (6) of Table 3, we interact *EPO* with *RURAL*. We expect privacy concerns to be more pronounced in rural counties because they are less anonymous. Furthermore, social approval and reputation are likely to be more important at this level. Owners of eponymous firms can be easily identified and, hence, more exposed to snooping neighbors. In line with this prediction, we find a positive and significant interaction (*EPO* × *RURAL*). Importantly, we also find a positive coefficient for non-eponymous owners, which we tentatively interpret as evidence that identifiability by, or potential exposure to, others more generally influences disclosure avoidance.

Overall, the cross-sectional analyses indicate that privacy concerns are more important when eponymous owners' wealth is high and stands out relative to local disposable income, when they are more indebted, when they live in rural areas, when local income inequality is lower, and when their home county exhibits some anticapitalistic tendencies. Although, anecdotally, the money taboo is very prevalent in Germany, we next address the external validity of our results by examining disclosure avoidance rooted in privacy concerns using an international sample.

International Evidence on Privacy Concerns and Firm Disclosure

To examine whether owners' privacy concerns affect their firms' public disclosures more generally, we next turn to an international sample of private firms from *AMADEUS* covering more than 1.2 million observations from 13 European countries, including Germany.²⁰ In this sample, we exploit variation in the number of undisclosed financial items along the intensive margin, similar to the approach shown in Table 2, Column (3).

In Panel A of Table 4, Column (1) shows that eponymous owners prefer opacity (as in Table 2) gained through disclosing fewer balance sheet and profit and loss items. Columns (2)–(5) show a disaggregated analysis of the exact undisclosed items to provide context for the types of information eponymous firms consider most costly to disclose. For example, consistent with our evidence in Table 2, we find that eponymous firms disclose fewer equity and profit and loss items, while they disclose similar levels of firm asset items. Examining disclosure avoidance heterogeneity in the international sample, Panel B of Table 4, Column (1) shows that eponymous owners in rural areas especially prefer opacity.

The international sample also allows us to extend our findings by examining institutional factors not present at the local level, under which privacy concerns may be more pronounced. Recall that Germany's relationship-based insider economy relies on sharing information exclusively with key parties, which is likely rooted in a more general culture of secrecy and privacy protection (Radebaugh, Gray and Black 2002; Hope et al. 2008; Leuz 2010). This contrasts with outsider economies, in which public disclosures inform and protect parties dealing at arm's length

²⁰ The sample consists of British, Austrian, Belgian, German, Spanish, Finnish, French, Greek, Irish, Italian, Dutch, Norwegian, and Portuguese firms. Most of the firms are British (480,559), followed by German and French firms. We include Germany in this test because our conceptual reasoning as to why privacy concerns matter is related to institutional factors that Germany shares with other countries (e.g., insider economies) and because including Germany provides for more cross-sectional variation along these factors, thereby enriching our analysis.

(Rajan and Zingales 1998). Accordingly, we expect that eponymous firm owners have higher privacy concerns in more insider-oriented economies owing to higher cultural secrecy and a greater reliance on relationships, which likely amplify owners' personal firm involvement and thus, exposure.

Employing several proxies to capture the notion of insider systems and elevated privacy concerns in Columns (2)–(6), we find that eponymous firms disclose less information relative to their local industry peers when financial secrecy is higher (as measured by the Tax Justice Network's Financial Secrecy Index [FSI]), public capital markets are less developed (as measured by Stock Market Size), and investor protection is weaker (as measured by the Anti-self-dealing index). In addition, the international sample allows us to explore the extent to which privacy concerns are higher in settings where public disclosures could plausibly be more effectively (mis)used by the general public. As shown in Column (5), eponymous owners reduce their firms' transparency in countries with higher levels of distrust (Aghion et al. 2010). Finally, we find that eponymous firms are more opaque when public disclosures and company registries are more easily searchable (Column [6]). In an untabulated robustness test that excludes Germany from the international sample, the EPO coefficients are statistically significant for financial debt and profit and loss (Panel A). The interaction term coefficients in Panel B are statistically significant for RURAL, FSI, and STOCK MARKET SIZE, but not for ANTI-SELF DEALING or DISTRUST. Taken together, these results indicate that privacy concerns arising from owner information exposure are not unique to Germany (consistent with the international prevalence of a money taboo, e.g., Wong 2018). Instead, privacy concerns appear to exist for similar types of information (e.g., wealth) and environments (e.g., rural). The results also extend our evidence from the German sample by

indicating that owners' privacy concerns are elevated in insider-oriented settings with high levels of secrecy and distrust.

Corroborating Evidence on the Importance of Privacy Concerns for Public Disclosure

Our previous results suggest that eponymous owners are more reluctant to publicly disclose their financials, and we characterize the breadth of privacy concerns at the German and international levels. In the following, we perform three analyses in the German sample to corroborate the notion that privacy concerns matter in firms' public disclosure decisions. First, we examine how owner dimensions other than eponymy might also plausibly give rise to privacy concerns. Second, we examine eponymous firms' private versus public disclosure behavior. Finally, we examine whether owners avoid eponymy once public disclosure is mandatory.

While we argue that eponymous owners' disclosure avoidance emerges because firm disclosure exposes sensitive owner information, eponymy likely only captures a portion of owners' privacy concerns. Hence, we examine whether other variables (in addition to eponymy) that increase owners' exposure or general privacy concerns also affect disclosure avoidance. We expect single owner firm disclosures to expose the owners and their financial situations more than multiple owner firm disclosures (measured as *SINGLE*). A similar argument can be made regarding owners who reside in the same zip code as their firms (measured as *SAME ZIP*). To proxy for general privacy concerns, we exploit a key determinant of financial privacy behavior identified in consumer marketing research: owner age. Goldfarb and Tucker (2012) show that older respondents refuse to reveal their income in surveys more often than younger ones. Finally, to capture privacy concerns more directly, we exploit a privacy decision that owners make in their private lives. During our sample period, regular landline phones were still widely used, while it

was optional to enter them in the public telephone book. If the preferences for financial privacy are rooted in a general preference for privacy, we would expect that firm owners who chose not to be listed in the public telephone book would also be less likely to disclose their firms' financials. Using the 2006 digital German telephone book, we match owners by their full names and zip codes to identify whether they were entered (measured as *NO ENTRY*).

Consistent with our predictions, Column (1) of Table 5 shows that, next to eponymy, owners with higher identifiability prefer opacity more strongly and at similar magnitudes to eponymous owners. Similarly, older owners are much more likely to keep their firms opaque. Finally, owners with no telephone book entry are less likely to publicly disclose their firms' financials. These results indicate that privacy concerns can manifest based on multiple factors, although it is unclear how they interact. While we believe that the results in Table 5 collectively indicate that privacy concerns matter—if we took the evidence at face value, an old eponymous single owner living near the firm, with no personal entry in the phonebook, would be 5 percent more likely to avoid disclosure—we acknowledge that alternative explanations exist for several of the factors examined.²¹ Hence, we focus on eponymy to corroborate that privacy concerns matter for public disclosure.

To illustrate that eponymous owners' privacy concerns are exclusive to the public disclosure of financials, we turn to their firms' private disclosure decisions. Rating agencies are key information intermediaries in our setting. Creditreform, for example, has credit ratings for approximately 85 percent of our sample firms. These ratings are often used by trade creditors or lessors and are based on both public (trade registers, courts, etc.) and private information (Bersch,

²¹ In untabulated tests, we further show for a sample restricted to only eponymous owners (EPO = 1), that there is no significant difference in disclosure propensity between non-German vs. German eponymous firm names, suggesting that local incorporation and operation of these firms and owners in Germany overshadows any potential effect from lower exposure to German cultural norms through carrying a non-German name.

Gottschalk, Mueller, and Niefert 2015; Vanhaverbeke, Balsmeier, and Doherr 2019). For example, firms are sometimes asked to share more extensive financial information privately with the agency. If privacy concerns are muted when sharing information with the agency, eponymous firms should not differ in their financial information sharing behavior.

We obtained confidential data from the rating agency as to whether they have access to more extensive financials (i.e., a full set of financial statements, as in Breuer, Hombach, and Müller [2022]) for our sample firms before the 2006 enforcement regime change (measured as *FS Availability*). The rating agency has more extensive financials for approximately 50 percent of our sample; Column (2) of Table 5 shows that this rate does not differ across eponymous and non-eponymous firms. The absence of a difference in this private disclosure proxy when privacy concerns are muted suggests that eponymous firms' public opacity could plausibly be rooted in privacy concerns.

Finally, we examine whether owners avoid eponymy once their firms' public opacity became infeasible because of the 2006 enforcement regime change. While we showed that eponymous owners reduce their firms' transparency by disclosing fewer financial items (e.g., on profitability), ditching eponymy to reduce the owner–firm tie would represent an alternative, stronger response to the infringement of their financial privacy.

Column (3) of Table 5 shows whether eponymous owners are more likely to change their firms' names to reduce their exposure after 2006.²² We find a positive and statistically significant interaction term *EPO* × *No disclosure*, consistent with the notion that eponymous firms that did not disclose before 2006, have a higher propensity to change their firm names once forced to

²² We limit the sample to majority-owned firms in 2008 and compare the firms' names with the ones reported in 2010. We use Amadeus ownership files from 2008 and 2010 to identify name changes.

disclose.²³ In a similar vein, we use newly incorporated firms under the post-2006 mandatory disclosure regime to explore any differences in naming decisions. Post-2006, the naming decision and the risk of losing financial privacy became an actual threat, which was muted in the pre-2006 de facto voluntary disclosure regime. Accordingly, Column (4) shows a sample of new firms incorporated between 2005 and 2009, that are not part of our main analyses sample, in which the share of eponymous firms is smaller in the post-2006 period and decreases over time.²⁴ Taken together, our results corroborate the importance of privacy concerns for firm disclosure as evidenced by our result that privacy concerns (i) manifest through multiple owner dimensions, (ii) are exclusive to public disclosures, and (iii) can be strong enough to affect firm naming choices under a mandatory disclosure regime.²⁵

Alternative Explanations Related to Firm Quality and Agency Issue Differences

While the above results on the breadth and importance of privacy concerns provide evidence consistent with our preferred interpretation that eponymous owners' public disclosure avoidance behavior is driven by privacy concerns, we explore two alternative explanations that could be driving our results. The first alternative is rooted in the argument that, since eponymy signals

²³ Our inferences do not change if the firm name switch is greater than seven characters (median value of the firm name distance for firm name changers) to mitigate the occurrence of type I errors (false positives) resulting from data bank spelling errors or changes. We also find some tentative evidence that when switching names, firms reduce their disclosed line items at the same time.

²⁴ Critically, in untabulated tests, we find no change in eponymy percentage among firms founded between 1997 and 2004, suggesting no downward trend that could explain the post-enforcement results. In an untabulated robustness test, we benchmark the German trend relative to the share of eponymous firms over time in the international sample used in our earlier tests. We find that eponymy in Germany falls more after the 2006 reform compared to eponymy in the international sample.

²⁵ Owing to the avoidance behavior of (previously) eponymous firms, it is difficult to effectively measure economic consequences from losing financial privacy. In addition, the costs of losing financial privacy are not necessarily detrimental to a firm's economic performance, but may materialize at the personal level. To provide some tentative evidence on this issue, we calculate several measures of changes in firm fundamentals (i.e., cash, leverage, and size) between 2007 and 2009/2010) and find no differences between eponymous firms disclosing and non-disclosing pre-2006 in untabulated analyses. Whether this is owing to avoidance behavior, mismeasurement of changes in firm fundamentals, or disclosure costs being borne at the owner level is an open question.

entrepreneurial quality owing to the higher reputational benefit/cost of success/failure, high quality entrepreneurs are drawn to name their firms after themselves, which in turn results in eponymous firms performing better (Belenzon et al. 2017). In this case, eponymous firms could be more opaque because eponymy itself reduces information frictions and/or because eponymous firms face higher proprietary costs (e.g., Botosan and Stanford 2005; Dedman and Lennox 2009; Kashmiri and Mahajan 2014).

Table 6 addresses this first alternative explanation. First, Column (1) shows that eponymous firms are also more opaque than firms whose names include a German personal last name that none of the firms' owners actually carry.²⁶ These firms also benefit from the name as a signal of quality,²⁷ but their owners should have lower privacy concerns because the owner–firm tie is non-existent. Second, Column (2) shows that eponymous firms prefer opacity when interacting eponymy with quality proxies, such as profitability, measured as the return on equity (*ROE*). If eponymy is a proxy for firm quality, our results would become insignificant when controlling for, and interacting with, *ROE*; the interaction term between *ROE* and eponymy should subsume the effect previously found in eponymy. However, this is not the case, as shown in Column (2), where both eponymy and the interaction term remain positive and significant. While the profitability results potentially suffer from selection bias, since we showed earlier that eponymous firms are less likely to disclose profitability, we also obtained confidential data on firms' credit ratings from Creditreform. Recall that this rating agency has credit ratings with *EPO* in

²⁶ That is, the control group consists of named but non-eponymous firms. These firms carry a last name in the firm name, e.g., Thimm as in Figure A1, but none of the owners' last names are part of firms' names, e.g., none of the owners has the last name Thimm. In untabulated analyses, we rerun this test excluding such named but non-eponymous firms with recent ownership changes with unchanged results.

²⁷ While Belenzon et al. (2017) model high quality entrepreneurs' eponomy selection, we argue that the high quality signal plausibly persists at the firm level when it is owned by new owners with different last names, because these new owners chose to retain the firm name that includes the former eponymous owner's last name.

Column (3), eponymous firms are still less likely to disclose their financials. These results suggest that differences in firm quality and/or proprietary costs are unlikely to fully explain the eponymous owners' preference for keeping their firms opaque.

A second alternative explanation is related to the measure of eponymy picking up differences in agency conflicts. In line with Belenzon et al. (2017), our definition of eponymy requires that the eponymous owner controls the firm. Since eponymy can worsen agency conflicts between controlling and minority shareholders, this might be driving our results, similar to findings in family firms (Ali et al. 2007; Chen et al. 2008). While it is important to note that we study a sample of fairly small private firms where ownership is rarely dispersed and owner-managers are prevalent, we examine these issues explicitly in the second half of Table 6.

First, we confirm our findings when limiting our sample to firms with controlling shareholders (Column [4]). However, as it might be the case that there are still agency problems between eponymous controlling shareholders and minority investors, Column (5) compares the disclosure avoidance of eponymous and non-eponymous firms with only one owner. That is, all these firms have one single shareholder holding all shares, and our results remain unchanged. These results are consistent with our main analyses results using ownership concentration as a control variable for potential differences in agency issues across eponymous and non-eponymous firms.²⁸ While these analyses speak to agency problems among owners, Column (6) restricts the sample owner-manager firms to compare eponymous and non-eponymous firms that do not differ in terms of agency problems between owners and managers—so called vertical agency problems.

 $^{^{28}}$ In our untabulated analyses, we also find similar results when (i) allowing for a non-linear relationship between ownership concentration and disclosure incentives and (ii) replacing our *EPO* dummy with the size of the ownership stake of any eponymous owner(s) rather than only controlling owners (*EPO_ANY_W*). We also find that eponymous owners prefer opacity once they own approximately 30 percent, consistent with the idea that privacy becomes relevant once the owner–firm tie is meaningful.

Again, our results remain unchanged. These findings indicate that it is unlikely that differences in agency problems among eponymous and non-eponymous firms explain eponymous firms' higher opacity.²⁹

V. CONCLUSIONS

This study investigates whether owners avoid disclosing their firms' financials to protect their financial privacy, arguing that firm disclosures are especially sensitive for owners who can be easily tied to their respective economic endeavors. Using a large sample of German private firms and a change in mandatory reporting, we show that eponymous owners, especially those who can be easily identified with their firm, are less likely to disclose their firms' financials. Crucially, privacy concerns are more relevant when disclosure reveals sensitive information that has a social stigma (e.g., high wealth or indebtedness) and in environments where social approval and norms matter more. Interestingly, we also find that eponymous owners more often change their firm names and that newly founded firms are less likely to be eponymous after the 2006 enforcement reform that forced firms to disclose their financial disclosures.

We also explore the external validity of our findings by showing that the set of institutional factors often considered as constituting insider economies is associated with increased privacy concerns (Rajan and Zingales 1998; Leuz and Wüstemann 2003), which is in line with the effects that financial secrecy, distrust, and increased disclosure identifiability have on disclosure (Aghion

²⁹ While we rule out two specific prominent alternative explanations to corroborate that eponymous owners' disclosure avoidance is rooted in privacy concerns, firm names are a choice, which gives rise to the concern that some other omitted variable drives both eponymy and disclosure avoidance. Most firms in our sample were incorporated when disclosure was effectively voluntary, rare, and difficult for outsiders to observe, suggesting that the risk of losing financial privacy or other financial disclosure considerations were most likely muted at the time of the naming decision. Still, in untabulated analyses, we document that our findings are robust to using different instrumental variable approaches, employing as instrumental variable: (i) owner last name length and frequency, and (ii) the relative frequency of how often an owner's last name is used as a firm name at the state (or county) level.

et al. 2010). We corroborate that our results are plausibly rooted in privacy concerns by showing that eponymous firms' disclosure avoidance is exclusive to public as opposed to private disclosure. We achieve this by replicating our key results using other owner dimensions that plausibly give rise to privacy concerns and by ruling out two prominent alternative explanations related to firm quality and agency conflict differences between eponymous and non-eponymous firms.

Overall, we contribute to prior voluntary disclosure studies (e.g., Beyer et al. 2010) by showing that privacy concerns at the owner level crowd out voluntary public disclosure at the firm level. As such, we add to recent papers emphasizing the role of non-investor disclosure constituents (e.g., the general public, as in Gassen and Muhn 2018) and the environment in which disclosures take place. We also contribute to the literature on the economics of privacy (Acquisti et al. 2016) and social norms (Lindbeck et al. 1999), revealing how owners optimize firms' transparency and how this process responds to both social norms and regulation. Finally, our examination of how financial disclosure relates to owner privacy significantly contributes to recent policy debates on the reporting regulation of private firms. While this literature documents effects at the firm and industry levels (e.g., Breuer 2021), our paper emphasizes the close tie between owners and their firms, which gives rise to privacy costs that may materialize at the owner level. Hence, it adds a previously neglected dimension to the debate on private firms' reporting regulation and transparency in general.

REFERENCES

- Acquisti, A., L. K. John, and G. Loewenstein. 2013. What is privacy worth? *Journal of Legal Studies* 42 (2): 249–274.
- Acquisti, A., C. Taylor, and L. Wagman. 2016. The Economics of privacy. *Journal of Economic Literature* 54 (2): 442–492.
- Aghion, P., Y. Algan, P. Cahuc, and A. Shleifer. 2010. Regulation and distrust. *Quarterly Journal of Economics* 125 (3): 1015–1049.
- Akerlof, G. A. 1970. The market for "lemons": quality uncertainty and the market mechanism. *Quarterly Journal of Economics* 84 (3): 488–500.
- Ali, A., T. Y. Chen, and S. Radhakrishnan. 2007. Corporate disclosures by family firms. *Journal* of Accounting & Economics 44 (1–2): 238–286.
- Anderson, R. C., A. Duru, and D. M. Reeb. 2009. Founders, heirs, and corporate opacity in the United States. *Journal of Financial Economics* 92 (2): 205–222.
- Arruñada, B. 2011. Mandatory accounting disclosure by small private companies. *European Journal of Law & Economics* 32 (3): 377–413.
- Barry, P. 2006. Financial disclosure: an economic analysis. In *Corporate Governance of Non-Listed Companies in Emerging Markets*, 19–38, Paris: OECD.
- Belenzon, S., A. K. Chatterji, and B. Daley. 2017. Eponymous entrepreneurs. *American Economic Review* 107 (6): 1638–1655.
- Bernard, D. 2016. Is the risk of product market predation a cost of disclosure? *Journal of Accounting & Economics* 62 (2–3): 305–325.
- Bersch, J., S. Gottschalk, B. Mueller, and M. Niefert. 2015. The Mannheim Enterprise Panel (MUP) and firm statistics for Germany. *SSRN Electronic Journal*.
- Beuselinck, C., F. Elfers, J. Gassen, and J. Pierk. 2021. Private firm accounting: the European reporting environment, data and research perspectives. *Accounting & Business Research*: 1–45.
- Beyer, A., D. A. Cohen, T. Z. Lys, and B. R. Walther. 2010. The financial reporting environment: review of the recent literature. *Journal of Accounting & Economics* 50 (2–3): 296–343.
- Blank, J. D. 2012. In defense of individual tax privacy. Emory Law Journal 61 (2): 265-348.

Bø, E. E., J. Slemrod, and T. O. Thoresen. 2015. Taxes on the internet: deterrence effects of public disclosure. *American Economic Journal: Economic Policy* 7 (1): 36–62.

- Botosan, C. A., and M. Stanford. 2005. Managers' motives to withhold segment disclosures and the effect of SFAS No. 131 on analysts' information environment. *Accounting Review* 80 (3): 751–772.
- Breuer, M. 2021. How does financial-reporting regulation affect industry-wide resource allocation? *Journal of Accounting Research* 59 (1): 59–110.
- Breuer, M., K. Hombach, and M. A. Müller. 2018. How does financial reporting regulation affect firms' banking? *Review of Financial Studies* 31 (4): 1265–1297.
- . 2020. The economics of firms' public disclosure: theory and evidence. *SSRN Electronic Journal*.
- ——. 2022. When you talk, I remain silent: spillover effects of peers' mandatory disclosures on firms' voluntary disclosures. *Accounting Review* 97 (4): 155–186.
- Card, D., A. Mas, E. Moretti, and E. Saez. 2012. Inequality at work: the effect of peer salaries on job satisfaction. *American Economic Review* 102 (6): 2981–3003.

- Chen, S., X. Chen, and Q. Cheng. 2008. Do family firms provide more or less voluntary disclosure? *Journal of Accounting Research* 46 (3): 499–536.
- Costa, C. M., F. C. Galdi, F. Y. S. Motoki, and J. M. Sanchez. 2016. Non-compliance in executive compensation disclosure: the Brazilian experience. *Journal of Business Finance & Accounting* 43 (3–4): 329–369.
- Cullen, Z., and R. Perez-Truglia. 2020. The Salary Taboo: privacy norms and the diffusion of information. *SSRN Electronic Journal*.
- Daughety, A. F., and J. F. Reinganum. 2010. Public goods, social pressure, and the choice between privacy and publicity. *American Economic Journal: Microeconomics* 2 (2): 191–221.
- Dedman, E., and C. Lennox. 2009. Perceived competition, profitability and the withholding of information about sales and the cost of sales. *Journal of Accounting & Economics* 48 (2–3): 210–230.
- Djankov, S., R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. 2008. The law and economics of self-dealing. *Journal of Financial Economics* 88 (3): 430–465.
- Duesenberry, J. S. 1949. *Income, Saving and the Theory of Consumer Behaviour*, Cambridge: Harvard University Press.
- DW.com. 2019. How Germans (don't) talk about money. Available at: <u>https://www.dw.com/en/how-germans-dont-talk-about-money/a-47742712</u> (last accessed 19/12/2022).
- Elster, J. 1989. Social norms and economic theory. *Journal of Economic Perspectives* 3 (4): 99–117.

Fehr, E., and K. M. Schmidt. 1999. A theory of fairness, competition, and cooperation. *Quarterly Journal of Economics* 114 (3): 817–868.

- Fershtman, C., U. Gneezy, and M. Hoffman. 2011. Taboos and identity: considering the unthinkable. *American Economic Journal: Microeconomics* 3 (2): 139–164.
- Fershtman, C., U. Gneezy, and J. A. List. 2012. Equity aversion: social norms and the desire to be ahead. *American Economic Journal: Microeconomics* 4 (4): 131–144.
- Gassen, J., and M. Muhn. 2018. Financial transparency of private firms: evidence from a randomized field experiment. *SSRN Electronic Journal*.
- Glaeser, S. 2018. The effects of proprietary information on corporate disclosure and transparency: evidence from trade secrets. *Journal of Accounting & Economics* 66 (1): 163–193.
- Glassdoor 2016. *Global Salary Transparency Survey: Employee Perceptions of Talking Pay.* Available at:

https://media.glassdoor.com/pr/press/pdf/GD_Survey_GlobalSalaryTransparency-FINAL.pdf (last accessed 19/12/2022).

- Goldfarb, A., and C. Tucker. 2012. Shifts in privacy concerns. *American Economic Review* 102 (3): 349–353.
- Gray, S. J. 1988. Towards a Theory of Cultural Influence on the Development of Accounting Systems Internationally. *Abacus* 24 (1): 1–15.
- Hasegawa, M., J. L. Hoopes, R. Ishida, and J. Slemrod. 2013. The effect of public disclosure on reported taxable income: evidence from individuals and corporations in Japan. *National Tax Journal* 66 (3): 571–607.
- Hofstede, G. 1980. *Culture's Consequences: International Differences in Work-Related Values.* Beverly Hills, CA: Sage Publications.

- Hope, O. K., T. Kang, W. Thomas, and Y. K. Yoo. 2008. Culture and auditor choice: A test of the secrecy hypothesis. *Journal of Accounting & Public Policy* 27 (5): 357–373.
- Kashmiri, S., and V. Mahajan. 2014. A rose by any other name: are family firms named after their founding families rewarded more for their new product introductions? *Journal of Business Ethics* 124 (1): 81–99.
- Kiernan, P. 2022. SEC pushes for more transparency from private companies. *Wall Street Journal*. Available at: <u>https://www.wsj.com/articles/sec-pushes-for-more-transparency-from-private-companies-11641752489</u> (last accessed 19/12/2022).
- Kitching, J., E. Kašperová, and J. Collis. 2015. The contradictory consequences of regulation: the influence of filing abbreviated accounts on UK small company performance. *International Small Business Journal* 33 (7): 671–688.
- La Porta, R., F. Lopez-De-Silanes, A. Shleifer, and R. W. Vishny. 1997. Legal determinants of external finance. *Journal of Finance* 52 (3): 1131–1150.
- Lenter, D., J. Slemrod, and D. Shackelford. 2003. Public disclosure of corporate tax return information: accounting, economics, and legal perspectives. *National Tax Journal* 56 (4): 803–830.
- Leuz, C. 2010. Different approaches to corporate reporting regulation: how jurisdictions differ and why. *Accounting & Business Research* 40 (3): 229–256.
- Leuz, C., and J. Wüstemann. 2003. The role of accounting in the German financial system. *SSRN Electronic Journal*.
- Li, Y., Y. Lin, and L. Zhang. 2018. Trade secrets law and corporate disclosure: causal evidence on the proprietary cost hypothesis. *Journal of Accounting Research* 56 (1): 265–308.
- Lin, T. 2022. Valuing intrinsic and instrumental preferences for privacy. *Marketing Science* 41 (4): 663–681.
- Lindbeck, A., S. Nyberg, and J. W. Weibull. 1999. Social norms and economic incentives in the welfare state. *Quarterly Journal of Economics* 114 (1): 1–35.
- Lusardi, A., and O. S. Mitchell. 2011. Financial literacy around the world: an overview. *Journal* of Pension Economics & Finance 10 (4): 497–508.
- Mas, A. 2017. Does transparency lead to pay compression? *Journal of Political Economy* 125 (5): 1683–1721.
- Mertes, T. 2022. Bilanz und Buchhaltung der GmbH / 2.6 Ergebnisverwendung. Haufe finance office premium. Available at: <u>https://www.haufe.de/finance/haufe-finance-office-premium/bilanz-und-buchhaltung-der-gmbh-26-</u>

ergebnisverwendung_idesk_PI20354_HI644765.html (last accessed 19/12/2022).

- Milne, G. R., G. Pettinico, F. M. Hajjat, and E. Markos. 2017. Information sensitivity typology: mapping the degree and type of risk consumers perceive in personal data sharing. *Journal of Consumer Affairs* 51 (1): 133–161.
- Minichilli, A., A. Prencipe, S. Radhakrishnan, and G. Siciliano. 2022. What's in a name? Eponymous private firms and financial reporting quality. *Management Science* 68 (3): 2330–2348.
- Minnis, M., and N. Shroff. 2017. Why regulate private firm disclosure and auditing? *Accounting & Business Research* 47 (5): 473–502.
- Moffitt, R. 1983. An economic model of welfare stigma. *American Economic Review* 73 (5): 1023–1035.
- Perez-Truglia, R. 2020. The effects of income transparency on well-being: evidence from a natural experiment. *American Economic Review* 110 (4): 1019–1054.

Posner, R. A. 1981. The economics of privacy. American Economic Review 71 (2): 405-409.

- Prince, J., and S. Wallsten. 2020. How much is privacy worth around the world and across platforms? *SSRN Electronic Journal*.
- Radebaugh, L. H., S. J. Gray, and E. L. Black. 2002. *International Accounting and Multinational Enterprises*. Fifth Edit. New York: John Wiley & Sons.
- Rajan, R. G., and L. Zingales. 1998. Financial dependence and growth. American Economic Review 88 (3): 559–586.
- Stigler, G. J. 1980. An Introduction to privacy in economics and politics. *Journal of Legal Studies* 9 (4): 623–644.
- Trachtman, R. 1999. The money taboo: its effects in everyday life and in the practice of psychotherapy. *Clinical Social Work Journal* 27 (3): 275–288.
- Vanhaverbeke, S., B. Balsmeier, and T. Doherr. 2022. Mandatory Financial Information Disclosure and Credit Ratings. ZEW - Centre for European Economic Research Discussion Paper No. 043, 2022, Available at SSRN: https://ssrncom.eur.idm.oclc.org/abstract=4257717 (last accessed 19/12/2022).
 - $\frac{1}{12} = \frac{1}{12} = \frac{1}{12}$
- Varian, H. R. 2002. Economic aspects of personal privacy. In *Cyber Policy and Economics in an Internet Age*, 127–137, Boston, MA: Springer US.
- Wong, K. 2018. We're all afraid to talk about money. Here's how to break the taboo. *The New York Times*. Available at: <u>https://www.nytimes.com/2018/08/28/smarter-living/how-to-talk-about-money.html</u>.

Figure 1: Number of firms disclosing for the first time (by year)



Notes: Source: Author calculations, BvD disc 2012.



Figure 2: Percentage of eponymous firms by incorporation year

Notes: Source: Author calculations, BvD disc 2012.

Table 1: Descriptive statistics

Panel A: Descriptive statistics of main variables

	Mean	SD	P10	P25	P50	P75	P90	Ν
Dependent variables								
No disclosure	0.88	0.33	0.00	1.00	1.00	1.00	1.00	253,580
#Undisclosed items	2.95	0.23	2.83	2.83	2.94	3.09	3.18	253,580
Undisclosed net income	0.20	0.40	0.00	0.00	0.00	0.00	1.00	223,662
Firm name change	0.05	0.22	0.00	0.00	0.00	0.00	0.00	170,709
FS availability	0.65	0.48	0.00	0.00	1.00	1.00	1.00	242,217
Test variables								
EPO	0.34	0.47	0.00	0.00	0.00	1.00	1.00	253,580
EPO ANY W	0.43	0.48	0.00	0.00	0.00	1.00	1.00	253,580
NAME LENGTH	1.92	0.31	1.61	1.79	1.95	2.08	2.30	253,580
NAME FREQ	0.69	0.78	0.00	0.00	0.69	1.10	1.79	253,580
Firm-level controls								
LEVERAGE	0.56	0.30	0.07	0.33	0.62	0.82	0.92	253,580
SIZE	5.62	1.48	3.58	4.49	5.63	6.67	7.60	253,580
TANG	0.24	0.26	0.00	0.03	0.14	0.36	0.66	253,580
CASH	0.18	0.21	0.00	0.01	0.09	0.27	0.49	253,580
OCON	0.75	0.26	0.38	0.50	0.91	1.00	1.00	253,580
AGE	2.36	0.81	1.10	1.79	2.40	2.94	3.37	253,580
NO SALES	0.47	0.50	0.00	0.00	0.00	1.00	1.00	253,580
HHI	0.06	0.10	0.01	0.01	0.02	0.05	0.17	253,580
ROE	0.27	0.58	-0.26	0.01	0.13	0.52	1.10	155,534
RATING	254.85	37.04	219.00	229.00	250.00	278.00	294.00	215,554
Cross-sections								
National								
GAP	9.26	20.54	0.56	1.18	2.66	7.80	21.51	253,580
EQUITY	4.45	1.40	2.83	3.43	4.29	5.37	6.36	253,580
GINI	0.50	0.23	0.48	0.49	0.50	0.52	0.53	248,537
RURAL	0.52	0.50	0.00	0.00	1.00	1.00	1.00	253,161
LEFTWING	0.07	0.07	0.03	0.04	0.05	0.06	0.19	248,537
International								
RURAL	22.66	5.96	19.80	19.80	22.50	23.82	23.82	1,276,292
FSI	5.99	0.45	5.11	5.86	6.22	6.28	6.28	1,276,292
STOCK MARKET SIZE	0.98	0.48	0.46	0.55	0.89	1.58	1.58	1,276,292
ANTI-SELF DEALING	0.55	0.30	0.28	0.28	0.38	0.95	0.95	1,276,292
DISTRUST	0.63	0.10	0.47	0.61	0.65	0.66	0.77	1,276,292
IDENTIFIABILITY	18.03	5.96	20.00	20.00	20.00	20.00	20.00	1,276,292
Owner characteristics								
SINGLE	0.47	0.50	0.00	0.00	0.00	1.00	1.00	253,580
SAME ZIP	0.56	0.50	0.00	0.00	1.00	1.00	1.00	142,325
OWNER AGE	3.88	0.23	3.61	3.74	3.89	4.04	4.17	142,325
NO ENTRY	0.65	0.48	0.00	0.00	1.00	1.00	1.00	142,325

Notes: All variables are defined in the Appendix.

Panel B: Descriptive statistics underlying our matched sample analyses

We used the following equation to determine the propensity scores:

$$EPO = LEVERAGE + SIZE + TANG + CASH + OCON + AGE + NO SALES + HHI + IND.FE + COUNTY.FE + \varepsilon$$

Panel B1: Before matching

	(1)	(2)	(2) - (1)	
	EPO = 0	EPO = 1	Difference	p-value
LEVERAGE	0.57	0.55	0.01	0.00
SIZE	5.62	5.63	0.01	0.37
TANG	0.24	0.24	0.01	0.00
CASH	0.18	0.16	0.03	0.00
OCON	0.67	0.88	0.21	0.00
AGE	2.30	2.46	0.16	0.00
NO SALES	0.48	0.47	0.01	0.00
HHI	0.07	0.05	0.01	0.00
N	166,424	87,156		

Panel B2: After matching (nearest neighbor, no replacement, caliper = 0.0001)

	(1)	(2)	(2) - (1)	
	EPO = 0	EPO = 1	Difference	p-value
LEVERAGE	0.55	0.55	0.00	0.87
SIZE	5.60	5.60	0.00	0.90
TANG	0.24	0.24	0.00	0.73
CASH	0.17	0.17	0.00	0.87
OCON	0.84	0.84	0.00	0.40
AGE	2.39	2.40	0.00	0.81
NO SALES	0.48	0.48	0.00	0.86
HHI	0.06	0.05	0.00	0.19
N	56,646	56,756		

Notes: All variables are defined in the Appendix.

Table 2: Eponymy and public disclosure avoidance

This table presents the results of the ordinary least squares estimation of Eq. (1). Column (3) replaces our primary dependent variable *No disclosure* with the natural logarithm of the number of undisclosed items *#Undisclosed items*. Column (4) is an indicator variable equal to 1 if the firm does not report net income either in the income statement or balance sheet in BvD's *Dafne* database and 0 otherwise as the dependent variable. Column (5) is a propensity score-matched sample (see panels B1 and B2 in Table 1 for additional descriptive statistics on the matched sample). Column (6) is panel data set for the years 2001 to 2006 with a constant ownership structure.

	(1)	(2)	(3)	(4)	(5)	(6)
Avoidance measure:	No disclosure	No disclosure	#Undisclosed items	Undisclosed net income	No disclosure	No disclosure
EPO	0.008***	0.006***	0.007***	0.004**	0.006***	0.058***
21 0	(0.001)	(0.002)	(0.001)	(0.002)	(0.002)	(0.006)
LEVERAGE	(0.001)	0.006**	-0.037***	-0.025***	0.007*	(0.000)
		(0.003)	(0.002)	(0.005)	(0.004)	
SIZE		-0.035***	-0.037***	0.018***	-0.034***	
		(0.002)	(0.001)	(0.001)	(0.002)	
TANG		0.042***	-0.032 * * *	-0.001	0.036***	
		(0.003)	(0.002)	(0.004)	(0.004)	
CASH		0.019***	-0.021***	0.037***	0.018***	
		(0.004)	(0.002)	(0.005)	(0.005)	
OCON.		0.005***	0.002***	-0.001	0.005***	
		(0.001)	(0.000)	(0.001)	(0.001)	
AGE (Log)		-0.015***	0.001**	0.010***	-0.013***	
		(0.001)	(0.001)	(0.001)	(0.001)	
NO SALES		-0.080***	0.129***	0.002	-0.075 * * *	
		(0.005)	(0.004)	(0.002)	(0.005)	
HHI		-0.006	-0.026***	0.058***	0.012	
		(0.009)	(0.005)	(0.012)	(0.014)	
Adj. R ²	0.12	0.15	0.03	0.04	0.15	0.34
N	253,580	253,580	222,725	168,318	113,402	1,336,696
Fixed effects	Ind. \times County	Ind. \times County	Ind. \times County	Ind. \times County	Ind. \times County	Firm & Year
Cluster	County	County	County	County	County	Firm

Notes: All variables are defined in the Appendix. In columns (1) to (5), the standard errors (in parentheses) were calculated using heteroskedastic-consistent Huber–White standard errors clustered at the county level, and in column (6) at the firm level. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***. **, and *, respectively.

Table 3: Cross-sectional differences in owners' privacy concerns about firms' disclosure

This table presents the results of the ordinary least squares estimation in Eq. (1) extended by interactions. A one-unit change in the independent variable changes the likelihood of *Avoidance* by "coefficient \times 100"%.

	(1)	(2)	(3)	(4)	(5)	(6)
Avoidance measure:	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure	No disclosure
EPO	0.006***	0.003	0.006***	-0.001	0.007***	0.000
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)
EQUITY	-0.045 * * *					
	(0.003)					
$EPO \times EQUITY(STD.)$	0.003**					
	(0.002)					
HIGH GAP		-0.022***				
		(0.003)				
EPO imes HIGH GAP		0.007**				
		(0.003)	0.001			
LEVERAGE (STD.)			0.001			
			(0.001)			
$EPO \times LEVERAGE$			0.003***			
			(0.001)	0.012		
				(0.012)		
FPO × LOW GINI				0.014)		
				(0.00)		
LEFTWING				(0.001)	0.039	
					(0.024)	
$EPO \times LEFTWING$					0.003**	
					(0.001)	
RURAL						0.042***
						(0.014)
EPO imes RURAL						0.007*
						(0.004)
Control variables?	Yes	Yes	Yes	Yes	Yes	Yes
$Adj. R^2$	0.15	0.15	0.15	0.05	0.06	0.07
N	253,580	253,580	253,580	248,536	248,536	253,150
Fixed effects	Ind. \times County	Ind. \times County	Ind. \times County	Ind. \times County	Ind. \times State	Ind. \times State
Cluster	County	County	County	County	County	County

Notes: All variables are defined in the Appendix. "*LOW*" indicates that instead of the continuous variable from Table 1, we used a median split, i.e., an indicator variable equal to 1 for values smaller than the sample median and 0 otherwise (the opposite is true for "*HIGH*"). Standard errors (in parentheses) were calculated using heteroskedastic-consistent Huber–White standard errors clustered at the county level. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***. **, and *, respectively.

Table 4: International evidence on owners' privacy concerns about firm disclosure

Panel A: Information type analyses

This table presents the results of the ordinary least squares estimation in Eq. (1) adjusted to a cross-country research design using country-region and industry fixed effects. The sample includes British, Austrian, Belgian, German, Spanish, Finnish, French, Greek, Irish, Italian, Dutch, Norwegian, and Portuguese firms with available data in Amadeus. In columns (2) to (4), we separately investigate the relationship between *EPO* and specific balance sheet and profit and loss statements that have not been disclosed.

Avoidance			#Undisclosed Items		
measure:					
	(1)	(2)	(3)	(4)	(5)
	All	Assets	Financial Debt	Equity	P&L
EPO	0.110***	0.000	-0.004	0.004***	0.120***
	(0.010)	(0.000)	(0.009)	(0.002)	(0.014)
Adj. R2	0.91	0.02	0.40	0.06	0.91
Ν	1,276,292	1,276,292	1,276,292	1,276,292	1,276,292
Cluster	Country-Region	Country-Region	Country-Region	Country-Region	Country-Region
Controls	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Country-Region & Ind.				
Country ×Assets	Yes	Yes	Yes	Yes	Yes

Notes: All variables are defined in the Appendix. For better readability, we multiply *#Undisclosed Items* times 10. Standard errors (in parentheses) are calculated using heteroskedastic-consistent Huber–White standard errors clustered at the country-region level. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***. **, and *, respectively.

Panel B: Cross-sectional analyses

This table presents the results of the ordinary least squares estimation in Eq. (1) adjusted to a cross-country research design using country-region and industry fixed effects extended by interactions. The sample includes British, Austrian, Belgian, German, Spanish, Finnish, French, Greek, Irish, Italian, Dutch, Norwegian, and Portuguese firms with available data in Amadeus. A one-unit change in the independent variable changes the number of undisclosed items by approximately "coefficient × 100"%.

	(1)	(2)	(3)	(4)	(5)	(6)
Avoidance measure:	#Undisclosed	#Undisclosed	#Undisclosed	#Undisclosed	#Undisclosed	#Undisclosed
	items	items	items	items	items	items
EPO	0.010***	0.012***	0.026***	0.024***	0.003	-0.002
	(0.001)	(0.001)	(0.002)	(0.002)	(0.005)	(0.006)
EPO imes RURAL	0.001***			· · · ·	· · · ·	
	(0.000)					
$EPO \times FSI$		0.022***				
		(0.003)				
EPO × STOCK MARKET SIZE			-0.018***			
			(0.002)			
EPO × ANTI-SELF DEALING				-0.028***		
				(0.003)		
EPO imes DISTRUST					0.014**	
					(0.007)	
EPO imes IDENTIFIABILITY						0.001**
						(0.031)
Adj. R ²	0.91	0.91	0.91	0.91	0.91	0.91
N	1,276,292	1,276,292	1,276,292	1,276,292	1,276,292	1,276,292
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Country ×Assets	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Country-	Country-	Country-	Country-	Country-	Country-
	Region & Ind.					
Cluster	Country-	Country-	Country-	Country-	Country-	Country-
	Region	Region	Region	Region	Region	Region

Notes: All variables are defined in the Appendix. Standard errors (in parentheses) are calculated using heteroskedastic-consistent Huber–White standard errors clustered at the country-region level. The variables *RURAL* and *FSI* are mean-centered. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***, **, and *, respectively.

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Table 5: Corroborating evidence on the role of owners' privacy concerns

This table presents the results of the ordinary least squares estimation in Eq. (1). A one-unit change in the independent variable changes the likelihood of *Avoidance* by "coefficient \times 100"%. Column (1) limits the sample to those observations for which we have owner characteristics from BvD's *Dafne* database. Column (2) uses *FS Availability* to the rating agency as the dependent variable. Column (3) limits the sample to majority-owned firms that changed their firm-name between 2008 and 2010. Column (4), *POST* is an indicator variable equal to 1 in years of incorporation after 2006 and 0 otherwise.

A	(1)	(2) ES Augilahilita	(3)	(4) EDO
Avoiaance measure:	no aisciosure	FS Availability	r irm name change	EPO
EPO	0.005***	0.003	-0.048***	
	(0.002)	(0.002)	(0.006)	
SINGLE	0.012***			
	(0.002)			
SAME ZIP	0.005***			
	(0.002)			
OWNER AGE	0.038***			
	(0.004)			
NO ENTRY	0.007***			
	(0.002)			
POST				-0.017***
				(0.004)
$EPO \times No \ disclosure$			0.036***	
			(0.006)	
No disclosure			-0.129***	
			(0.004)	
LEVERAGE	0.008**	0.088^{***}	0.010***	-0.066***
	(0.004)	(0.007)	(0.003)	(0.008)
SIZE	-0.032***	0.030***	0.003***	0.020***
	(0.002)	(0.001)	(0.001)	(0.002)
TANG	0.034***	-0.049***	-0.005 **	0.033***
	(0.004)	(0.004)	(0.002)	(0.007)
CASH	0.018***	0.005	-0.006**	0.005
	(0.005)	(0.006)	(0.003)	(0.005)
OCON.		-0.005^{***}	0.001	0.155***
		(0.001)	(0.001)	(0.006)
AGE	-0.017***	0.083***	0.002**	
	(0.001)	(0.004)	(0.001)	
NO SALES	-0.079***	-0.140***	0.001	-0.011**
	(0.005)	(0.006)	(0.001)	(0.005)
HHI	-0.002	-0.016	0.010	-0.007
	(0.014)	(0.014)	(0.011)	(0.013)
Adj. R ²	0.15	0.33	0.04	0.19
Ν	139,078	241,963	168,318	55,526
Fixed effects	Ind. \times County	Ind. \times County	Ind. \times County	Ind. \times County
Cluster	County	County	County	County

Notes: All variables are defined in the Appendix. Standard errors (in parentheses) are calculated using heteroskedastic-consistent Huber–White standard errors clustered at the county level. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***, **, and *, respectively.

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Table 6: Alternative explanations: Differences in firm quality and agency issues

This table presents the results of the ordinary least squares estimation in Eq. (1). A one-unit change in the independent variable changes the likelihood of *Avoidance* by "coefficient × 100"%. Column (1) benchmarks eponymous firms against a sample of non-eponymous firms that carry a personal last name in the firm name different from any of the owners' names. Columns (2) and (3) add interactions with *AGE*, *RATING*, and *ROE*. Column (4) uses a sample consisting solely of controlling owners (stake > 50%). Column (5) limits the sample to single owners (*OCON* = 1). Column (6) limits the sample to owner-managers.

		Firm Quality	Agency Issues				
	(1)	(2)	(3)	(4)	(5)	(6)	
Avoidance	No	No	No	No	No	No	
measure:	disclosure	disclosure	disclosure	disclosure	disclosure	disclosure	
Sample:	Personal last name in	All available	All available obs.	Controlling owners	Single owners	Owner- managers	
	firm name onlv	obs.					
EPO	0.005**	0.006***	0.008***	0.008***	0.007***	0.007***	
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	
$EPO \times ROE$		0.004** (0.002)	()	()	(,		
$EPO \times$			0.006***				
RATING							
			(0.002)				
ROE		0.004***					
		(0.001)					
RATING			-0.022***				
			(0.002)				
LEVERAGE	0.007*	0.022***	-0.001	0.007**	0.006	0.006*	
	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	
SIZE	-0.036***	-0.048***	-0.033***	-0.034***	-0.032***	-0.035 * * *	
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	
TANG	0.041***	0.025***	0.043***	0.035***	0.032***	0.041***	
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)	
CASH	0.021***	0.014***	0.023***	0.020***	0.014***	0.019***	
	(0.005)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	
OCON.	0.003***	0.005***	0.004***	0.000		0.005***	
	(0.001)	(0.001)	(0.001)	(0.012)		(0.001)	
AGE	-0.012***	-0.011***	-0.008***	0.006***	-0.014***	-0.016***	
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	
NO SALES	-0.083 * * *	-0.088***	-0.091***	-0.013***	-0.073 * * *	-0.082***	
	(0.005)	(0.006)	(0.005)	(0.001)	(0.005)	(0.005)	
HHI	0.008	-0.007	-0.005	-0.078***	0.005	0.005	
	(0.014)	(0.013)	(0.011)	(0.005)	(0.013)	(0.011)	
Adj. R ²	0.16	0.17	0.16	0.15	0.15	0.15	
N	148,310	152,532	214,464	174,070	115,274	196,477	
Fixed effects	Ind. \times	Ind. \times	Ind. \times	Ind. \times	Ind. \times	Ind. \times	
	County	County	County	County	County	County	
Cluster	County	County	County	County	County	County	

Notes: All variables are defined in the Appendix. We standardize the variables used in the interaction terms to have a mean of 0 and a standard deviation of 1 for easier interpretation. Standard errors (in parentheses) were calculated using heteroskedastic-consistent Huber–White standard errors clustered at the county level. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***. **, and *, respectively.

APPENDIX

Figure A1: Test variable construction: Illustrative example of representative firms in our sample

Data provider: BvD



Table A.1: Variable definitions

No disclosure	<u>Avoidance measures (dependent variables)</u> An indicator variable equal to 1 if the firm appears for the first time in the Amadeus database for its fiscal year-end between December 31, 2005, and December	BvD's Amadeus
#Undisclosed items	30, 2007, and 0 otherwise. It identifies firms that did not disclose before the enforcement change. The natural logarithm of the firm's number of undisclosed items, which are defined as missing entries in the BvD database, for items such as total assets, sales, or net income	BvD's Amadeus
Undisclosed net income	An indicator variable equal to 1 if the firm does not	BvD's Dafne
Firm name change	report net income in the profit and loss statement or in the balance sheet (retained earnings) and 0 otherwise. An indicator variable equal to 1 for majority-owned firms that switched their name between 2008 and 2010	BvD's Amadeus
FS Availability	(we also require that the owner did not change) and 0 otherwise. An indicator variable equal to 1 if a firm's financial statements are available in the credit rating agency data and 0 otherwise.	ZEW—Leibniz Centre for European Economic Research and Creditreform
EPO	<u>Firm-level variables</u> An indicator variable equal to 1 if the firm is named after the controlling shareholder and 0 otherwise	BvD's Amadeus
EPO_ANY	(download as of February 2008). ⁵⁵ An indicator variable equal to 1 if any of the shareholders shares the last name with the firm and 0	BvD's Amadeus
EPO_ANY_W	The sum of <i>EPO_ANY</i> multiplied by the direct ownership stake of the given shareholder	BvD's Amadeus
#EPO	The number of eponymous shareholders at a given firm	BvD's Amadeus
%EPO	The percentage of eponymous owners, calculated as <i>#EPO</i> , divided by the number of shareholders.	BvD's Amadeus
LEVERAGE	Total debt over total assets.	BvD's Amadeus
SIZE	The natural logarithm of the firm's total assets in th. \in .	BvD's Amadeus
TANG	Tangible assets over total assets.	BvD's Amadeus
CASH	Cash over total assets.	BvD's Amadeus
OCON	The Herfindahl–Hirschman index of shareholdings; We standardized it to have a mean of 0 and a standard deviation of 1 in the regressions.	BvD's Amadeus
AGE	The natural logarithm of the firm's age.	BvD's Amadeus
NO SALES	An indicator variable equal to 1 if Amadeus does not	BvD's Amadeus
ННІ	The Herfindahl–Hirschman index using the firms' total assets, calculated based on four-digit NAICS industry classifications	BvD's Amadeus
ROE	Calculated as the ratio of net income to common equity.	BvD's Dafne

³⁰ We replicated Table 2 using *EPO* measures based on earlier downloads from 2005 to 2007; our inferences remained consistent and, if anything, they increased in magnitude.

RATING	Obtained from ZEW the average rating is 255 (median = 250). The minimum and maximum ratings are 114 and 600, respectively; for ease of interpretation, we multiplied the ratings by -1 so that higher values correspond to better ratings.	ZEW—Leibniz Centre for European Economic Research
GAP	<u>Cross-sectional test variables</u> Calculated as the ratio between the majority owners' direct equity value (in th. \in) and the county's disposable income (in th. \in) obtained from the German statistical office.	BvD's Amadeus and German Statistical Office
EQUITY GINI	The natural logarithm of common equity Calculated based on county-level income tax statistics in 2004 obtained from the German statistical office (Item: "Lohn- und Einkommensteuerstatistik [73111- 02-01-4]").	BvD's Dafne German Statistical Office
RURAL	An indicator variable equal to 1 if the county is not categorized as an urban (<i>nicht-ländlich</i>) area based on the Thünen Classification in 2016 and 0 otherwise (See: landatlas.de).	Bundesministerium für Ernährung und Landwirtschaft: Thünen- Landatlas
LEFTWING	The county-level percentage of left-wing voters in the 2005 federal election obtained from the German statistical office (Item: "Allgemeine Bundestagswahlstatistik [14111-01-03-4]"). <i>Additional owner characteristics</i>	German Statistical Office
SINGLE	An indicator variable equal to 1 if a firm is owned by a single individual and 0 otherwise.	German Statistical Office
SAME ZIP	An indicator variable equal to 1 if the majority owner resides in the same zip code as the firm and 0 otherwise	BvD's Dafne and own calculation
NO ENTRY	An indicator variable equal to 1 if the majority owner has no entry in the telephone book and 0 otherwise.	klickTel 2006 telephone book CD and own calculation
OWNER AGE	The natural logarithm of the majority owner's age <u>Cross-country variables</u>	BvD's Dafne
RURAL	The percentage of people living in rural areas	World Bank
FSI	The ranking of countries based on how much financial secrecy they supply to the world. Higher ranks indicate that a country facilitates money hiding and laundering. We use the natural logarithm.	Tax Justice Network
STOCK MARKET SIZE	The average of the ratio of stock market capitalization to gross domestic product for the period from 1999 to 2003.	World Development Indicators
ANTI SELF-DEALING	The average of ex-ante and ex-post private control of self-dealing.	Djankov, La Porta, Lopez- de-Silanes and Shleifer (2008)
DISTRUST	A county's average answer to the question, "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" This variable is equal to 1 if the respondent answers, "can't be too careful," and 0 otherwise. The average distrust is calculated over the four waves of the World Values Survey from 1981, 1990, 1995, and 2000.	Aghion et al. (2010)
IDENTIFIABILITY	A score ranging from 0 to 20 for unrestricted online searchability of a country's companies that does not charge any costs nor require any registration and that	The open company data index

offers an online search feature (See: http://registries.opencorporates.com).

Notes: All continuous firm-level variables are truncated at the 1st and 99th percentiles. If not indicated otherwise, ownership-related variables/owner characteristics are measured in 2007 (downloaded in February 2008 from WRDS) and firm financials are taken from the earliest available fiscal year-end, i.e., 2006 (95% of the sample) or, if not available, from 2007.

Table A.2: Alternative EPO calculations

This table presents descriptive statistics of the alternative calculations of *EPO* that do not use only majority owners.

	Mean	SD	P10	P25	P50	P75	P90	Ν
EPO	0.34	0.47	0.00	0.00	0.00	1.00	1.00	253,580
EPO_ANY	0.47	0.50	0.00	0.00	0.00	1.00	1.00	253,580
EPO_ANY_W	0.43	0.48	0.00	0.00	0.00	1.00	1.00	253,580
#EPO	0.71	0.91	0.00	0.00	0.00	1.00	2.00	253,580
#EPO (log)	0.41	0.48	0.00	0.00	0.00	0.69	1.10	253,580
%EPO	0.43	0.48	0.00	0.00	0.00	1.00	1.00	253,580

Notes: All variables are defined in the Appendix.

This table presents the results of the ordinary least squares estimation of Eq. (1). A one-unit change in the independent variable changes the likelihood of *Avoidance* by "coefficient \times 100"%.

	(1)	(2)	(3)	(4)	(5)
Avoidance measure:	No disclosure				
EPO	0.006***				
	(0.002)				
EPO_ANY		0.010***			
		(0.001)			
EPO_ANY_W			0.011***		
			(0.002)		
#EPO (log)				0.012***	
				(0.002)	
%EPO					0.011***
					(0.002)
Controls	Yes	Yes	Yes	Yes	Yes
Adj. R ²	0.15	0.15	0.15	0.15	0.15
Ν	253,580	253,580	253,580	253,580	253,580
Fixed effects	Ind. \times County				
Cluster	County	County	County	County	County

Notes: All variables are defined in the Appendix. The control variables are the same as in Table 2, column (2). The standard errors (in parentheses) are calculated using heteroskedastic-consistent Huber–White standard errors clustered at the county level. Statistical significance at the 1%, 5%, and 10% (two-tailed) levels is denoted by ***. ***, and *, respectively.