Regulatory enforcement, foreignness and language negativity: Evidence from SEC comment letters[☆]

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ABSTRACT: In this paper, we demonstrate that negative language is employed as a mechanism through which regulators express their differentiated level of concern and pass on stronger messages to riskier reviewees. We investigate the language tone employed by the internationally-influential U.S. Securities and Exchange Commission (SEC) in comment letters to foreign firms, which are considered riskier in comparison with their U.S. domestic counterparts. We find a significantly greater level of language negativity in comment letters addressed to foreign registrants. We further show that the negativity of language is more intense when foreign firms are domiciled in strong-law countries and when they do not apply U.S. GAAP. We offer implications for regulators, managers and market participants.

Keywords: enforcement; SEC comment letters; foreignness; language tone.

JEL Classification: M48; K42; N20

1 Introduction

Economic history has been marked by the ceaseless efforts of states to produce a set of efficient institutions to achieve and sustain economic growth (North, 2016). Within the international financial realm, one of the areas that has attracted overwhelming institutional attention is investor protection (La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1998). In line with regulatory theory traditions (den Hertog, 2010; Shleifer, 2005), state interventions and reforms have been instigated to facilitate investor activity within stable, credible and efficient markets (Wade, 2007a, 2007b).

In the internationally-influential context of the United States, dramatic corporate debacles paved the way for a significant institutional reform in the early 2000's (Caramanis, Dedoulis, & Leventis, 2015). The enactment of the Sarbanes-Oxley Act, *inter alia*, sought to strengthen public oversight (Duro, Heese, & Ormazabal, 2019; Ryans, 2021) and enhance informational transparency for investors (Sarbanes-Oxley Act Section 408, 2002). Placing emphasis upon public firms' regulatory compliance with the applicable disclosure requirements, Section 408 specifically required the SEC to review public firms' filings systematically, at least once every three years (SEC, 2015a).

A distinctive characteristic of this review process is the issuance of comment letters which are addressed to reviewees when accounting issues needing clarification are identified. Comment letters are a means of instigating and developing a dialogue between the Division of Corporation Finance and public firms (Bozanic, Dietrich, & Johnson, 2017; Duro et al., 2019; Heese, Khan, & Ramanna, 2017; SEC, 2015a).[1] They mainly comprise qualitative information

[1] The issuance of SEC comments is an important regulatory process which has been associated with significant corporate benefits such as: increased financial reporting quality (Bozanic et al., 2017), greater tax compliance (Kubick, Lynch, Mayberry, & Omer, 2016), and enhanced corporate and peer disclosures (Brown, Tian, & Tucker, 2018); while their resolutions are associated with a better information environment and less disagreement among investors and analysts (Johnston & Petacchi, 2017).

and, thereby, language tone and wording may constitute a means through which the regulator communicates case-specific levels of concern to the reviewees and to the market. By drawing upon cognitive psychology research, which associates the use of more negative language with the conveyance of stronger messages to recipients (Liebrecht, Hustinx, & van Mulken, 2019; Loughran & McDonald, 2011; Tetlock, 2007), we embark upon examining the employment of negative language as a mechanism through which the Division of Corporation Finance expresses differentiated levels of concern and passes on a stronger message to riskier reviewees.

The Division of Corporation Finance staff "seek to ensure that investors are provided with material information in order to make informed investment decisions, both when a company initially offers its securities to the public and on an ongoing basis as it continues to give information to the marketplace" (available at https://www.sec.gov/divisions/corpfin/cfabout.shtml). Furthermore, they "selectively review filings made under the Securities Act of 1933 and Securities Exchange Act of 1934 both to monitor and to enhance compliance with disclosure and accounting requirements. The Division concentrates its review resources on disclosures that appear to be inconsistent with Commission rules or applicable accounting standards, or that appear to be materially deficient in their rationale or in clarity" (available at https://www.sec.gov/divisions/corpfin/cfabout.shtml). Against this background, we argue that Division staff are highly likely to consider as riskier those firms that are prone to failing to disclose material information, or when such disclosures are materially deficient in their rationale or in clarity, or when they deviate from SEC's rules or applicable accounting standards.

Foreign firms listed on the U.S. stock exchanges are, *inter alia*, known for their great importance for the U.S. economy. This is due to the accelerating rate of globalization, which

has enhanced the role of foreign firms in direct domestic investment (Douglas & Craig, 2011; Klein, Peek, & Rosengren, 2002; Tsang & Yip, 2007). However, when reviewed, this group which is crucial for the U.S. economy may be seen with greater caution by the Division staff for two main reasons. Firstly, they exhibit a greater tendency towards errors, irregularities and earnings manipulation (Lang, Smith Raedy, & Wilson, 2006; Leuz, 2006); and, secondly, they encounter greater difficulties in adapting to the host-country institutional settings (Moeller, Harvey, Griffith, & Richey, 2013; Wu & Salomon, 2017). Accordingly, when foreign firms are included in the sample of firms to be reviewed by the Division staff, they may be perceived as riskier; since they are more prone to failing to disclose material information and to deviating from SEC's rules and applicable accounting standards, to the detriment of investors.

Our study builds upon Chantziaras, Koulikidou, and Leventis (2021), who developed a regulatory negativity-tone measure and demonstrated significant capital market reactions. We extend this work by providing insights into the role of language negativity directed towards foreign firms, which are considered to be more prone to errors and irregularities. We bring foreign companies to the forefront of our analysis and employ a sample of 455 U.S.-listed foreign firms that received at least one SEC comment letter between 2005 and 2015. Following a propensity score matching (PSM) technique, we compare the comment-letter language tone employed when addressing foreign and U.S. domestic firms. We illustrate that the tone of the regulatory content is more negative for foreign firms cross-listed in the United States. when compared with their domestic peers. Moreover, we demonstrate that the SEC language tone is more negative for firms domiciled in countries with strong enforcement regimes and for firms with lower levels of U.S. GAAP conformity.

Our contribution is two-fold. First, we contribute to the literature of regulatory enforcement and content analysis by demonstrating that negative language is employed as a mechanism through which regulators seek to convey stronger messages to riskier reviewees.

Secondly, we contribute to the international accounting literature related to investor protection. By shedding light on the association between increased language negativity and risky foreign firms, we show that riskier groups of firms may be an important driver of language-negativity intensification. This intensification is also positively associated with foreign firms domiciled in strong-law countries and those with lower U.S. GAAP conformity.

The remainder of the paper is organized as follows: Section 2 constructs the literature background for developing the hypotheses. Section 3 describes the data and the language-tone methodology. In Section 4, we present the research design and in Section 5 we discuss the main results. Section 6 reports the additional analyses and the results of the sensitivity testing. Section 7 concludes the study.

2 Literature review and hypothesis development

The SEC Division of Corporation Finance conducts company reviews on the basis of Section 408 of the Sarbanes-Oxley Act ("the Act" hereafter) (SEC, 2015a). The Division's oversight role comprises monitoring and advice in order to ensure compliance with SEC rules and, in certain cases, this process may end with the firm making a restatement of past financial reports (Duro et al., 2019; Heese et al., 2017; Ryans, 2021).

The Act establishes certain criteria according to which firms are selected for review. Such criteria include cases of material restatements of financial results, significant volatility in stock price, largest market capitalization, disparities in price to earnings ratios, and firms whose operations significantly affect a material sector of the U.S. economy (Duro et al., 2019). Notably, the legislative context provides considerable discretion to the public oversight institute by stating that it can also review cases on the grounds of "any other factors" that it "may consider relevant" (Cassell, Dreher, & Myers, 2013; Johnston & Petacchi, 2017; PWC, 2021). Interestingly though, information and details about when or why the Division of

Corporation Finance selects certain firms for review are not made publicly known (Duro et al., 2019).

When accounting issues which are considered inadequate or worthy of further analysis are identified through the filing review process, the Division of Corporation Finance examiners issue comment letters. Comment letters are a means of dialogue between the Division of Corporation Finance and public firms (SEC, 2015a). They constitute expressions of concern about a public firm's information disclosure and provide opportunities for that firm to respond and improve disclosure practices (Bozanic et al., 2017; Duro et al., 2019; Heese et al., 2017).

Through their comments, the Division staff may request supplemental information to better evaluate the disclosures, a revision to future filings, or an amendment of the filing under review (SEC, 2019). Firms are given a 10-day period to respond or communicate an alternative timeframe. The process could entail multiple rounds of correspondence, during which the Division offers advice to firms and explicitly encourages firms to provide a detailed explanation in their response letters when they do not agree with the recommended revisions. In cases where the Division is not satisfied with the outcome of the process, the matter is referred to the Division of Enforcement for further action (Heese et al., 2017).

Issuing and structuring comment letters are processes involving some extent of perception and professional judgment. Firms under review may be considered as riskier cases by the Division staff when they are prone to failing to disclose material information, or when such disclosures are materially deficient in their rationale or in clarity, or when they deviate from SEC's rules or applicable accounting standards.[2] Additionally, the Division staff's risk assessment may be also informed by public information, such as issues identified on a company's website, press releases or analyst calls, as well as non-public leaks, such as

[2] For instance, see the Division webpage at: https://www.sec.gov/divisions/corpfin/cfabout.shtml (Accessed 28 February, 2022).

whistleblower tips and Public Company Accounting Oversight Board inspection reports (PWC, 2021). Information from other sources is valuable for the Division staff who use it to inform their filings-review process and maintain institutional efficiency (Lewis, 2012). In fact, searching and identifying potential risk factors is an integral element of the oversight body's operation (Lewis, 2012). Previous researchers have drawn attention to risk factors which appear to be a "flag for added scrutiny" in the review process (Heese et al., 2017).

Against this background, it is highly likely that reviewees belonging to riskier groups of registrants would be treated with greater caution by the Division staff, and one notable case may be that of the foreign private issuers who, *inter alia*, encounter greater difficulties with financial reporting requirements (Lang et al., 2006; Leuz, 2006). For instance, foreign firms' earnings exhibit more evidence of income smoothing, a greater tendency to manage towards a target, lower association with share price, and less-timely recognition of losses (Lang et al., 2006). Leuz (2006) supports the aforementioned findings, stating that the higher level of earnings management exhibited is associated with foreign firms' ownership concentration, which is different to that of the U.S. firms.

The Division staff may also look at foreign firms with greater caution since they do bear the imprint of their home country's contextual features (Wu & Salomon, 2017) which unavoidably impact their financial reporting practices (Lang et al., 2006; Leuz, 2006; Srinivasan, Wahid, & Yu, 2015). For instance, institutional differences across countries with regard to investor protection or disclosure regulation may provide foreign firms with different incentives to use reporting discretion, which may pave the way for greater earnings management (Leuz, 2006; Srinivasan et al., 2015). Researchers also maintain that the quality of audits differs between U.S. firms and foreign firms. Chan, Guo, and Mo (2020) draw attention to the fact that auditors provide audits of better quality to U.S.-based listed firms than to foreign firms, and in particular to U.S.-listed Chinese firms.

Moreover, foreign private issuers encounter an informational disadvantage stemming from their unfamiliarity with the prevailing social, political and economic legislative context and norms (Moeller et al., 2013; Wu & Salomon, 2017). Foreign firms are understood to come across additional difficulties in complying with the U.S. institutional requirements, which may lead to misinterpretations and, as a result, they may be more prone to making errors and running afoul of host-country regulations (Wu & Salomon, 2017).

The Division staff may also factor into their risk-assessment analysis other important parameters and information about the operation of foreign firms. For instance, bank regulators more frequently instigate enforcement actions against foreign banks than their domestic competitors (Wu & Salomon, 2017). In a similar vein, a greater number of lawsuits is instigated against foreign private issuers (Mezias, 2002) and, most importantly, foreign firms are reported to be more likely to lose these lawsuits in the courts than domestic registrants (Bhattacharya, Galpin, & Haslem, 2007). Additionally, foreign public issuers may attract increased attention from financial analysts and monitoring by sophisticated U.S. capital market participants (e.g., pension funds and institutional investors) (Leuz, 2006), which may be an additional reason why Division staff are more careful in their review approach.

It is therefore suggested that broader information about foreign public issuers' operations which raises a red flag, along with the enhanced attention from market participants, drives Division staff to exhibit more cautiousness when reviewing foreign firms compared with domestic firms.

2.1 Language tone, comment letters and foreign registrants

Research has demonstrated that appropriate writing styles and language tone can effectively facilitate the conveyance of a message and, therefore, a given piece of writing can reach and affect the audience in the way the author intends (Tekfi, 1987). Based primarily on

theories rooted in cognitive psychology, a well-established body of prior literature on the power of language has emphasized the significance of content tone employed by corporate managers in: 10-K reports (e.g., Loughran & McDonald, 2011); the Management Discussion and Analysis (MD&A) section of 10-K and 10-Q filings (Wang, 2021); other corporate filings such as earnings announcements (e.g., Davis, Piger, & Sedor, 2012; Henry, 2008; Henry & Leone, 2016; Huang, Teoh, & Zhang, 2014b); financial analyst reports (e.g., Huang, Zang, & Zheng, 2014a); and in business press releases (e.g., Druz, Petzev, Wagner, & Zeckhauser, 2020). Findings indicate that the language and wording employed do indeed have an impact on business decision making (Henry, 2008; Huang et al., 2014a; Yekini, Wisniewski, & Millo, 2016).

A particular branch of cognitive psychology research has drawn attention to the power of negative language and wording in comparison to positive writing (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Liebrecht et al., 2019). The strength of negativity has been demonstrated by studies on the electronic word-of-mouth (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004), press publications (Soroka, 2006), organizational communications (Kahneman & Tversky, 1984) and political advertising (Newell & Shanks, 2014). It has been demonstrated that negative wording attracts more attention and exerts more influence on the recipient behavior (Dijksterhuis & Aarts, 2003). On the basis of this branch of literature, prior studies have illuminated how texts containing negative language and messages in the accounting realm (such as misstatements (Dechow, Sloan, & Sweeney, 1996), litigation releases (Nourayi, 1994) and PCAOB enforcement orders against auditors (Dee, Lulseged, & Zhang, 2011)) trigger negative stock returns upon their announcement. Moreover, investors tend to give little weight to positive information while they give significant weight to negative information (Chantziaras et al., 2021; Engelberg, 2008; Huang et al., 2014a; Tetlock, 2007).

Significantly, textual analysis research uses word-frequency count to measure language tone (Liebrecht et al., 2019; Loughran & McDonald, 2011; Tetlock, 2007). It is suggested that the more negative the wording the more accurately the receiver of the information would decode the message (Loughran & McDonald, 2016). This is evident when examining market reactions to the negative language tone used in press articles (García, 2013; Gurun & Butler, 2012; Liu & McConnell, 2013) and firm disclosures (Mayew & Venkatachalam, 2012). For instance, in press articles the use of high levels of negative words are accompanied by a market response, i.e. lower returns the next day (Tetlock, 2007). Similarly, Tetlock, Saar-Tsechansky, and Macskassy (2008) ascertain that the higher the number of negative words used in a firm-specific news story, the lower the firm's subsequent standardized unexpected earnings. Moreover, Loughran and McDonald (2011) argue that managers may employ a higher proportion of negative words to lower market participants' expectations.

The relevance of language negativity and the accuracy of message interpretation is of particular importance in the case of the comment letters, which axiomatically comprise concerns about firm disclosure practices (Chantziaras et al., 2021). Regulators' level of caution with regard to "red flag" cases (Heese et al., 2017) (such as foreign public issuers who are known for their higher tendency towards earnings management and are less familiar with the U.S. legislative background) is expected to be accompanied by the employment of an analogous writing tone and language in the composition of comment letters.[3]

Clearer messages in comment letters are of considerable importance for the protection of investors and the stability of the market for two main reasons. Firstly, they enable the instigation of an efficient dialogue aimed at bringing about improvements with regard to financial reporting disclosures. Secondly, comment letters become public and, thus, constitute

[3] It is noted that although comment letters are prepared by different staff members, since the Division comprises 11 groups organized by industry (Duro et al., 2019), cautiousness regarding riskier groups would cut across all regulatory groups and would lead to the use of stricter and more negative language tones.

a point of reference and an additional public source of information for interested parties and market participants (Duro et al., 2019). As a result, the Division staff are expected to employ a more negative tone for riskier firms to ensure, on the one level, that messages have been well received by reviewees and, on another, that informational transparency is achieved for the benefit of the wider investment community. Bearing these arguments in mind, we hypothesize that:

H1: *Ceteris paribus*, foreign firms receive a more negative language tone in comment letters than their domestic counterparts.

Reviewing the filings of foreign registrants, the SEC may encounter significant information shortfalls as a result of the various jurisdictional complexities and legal limitations (Silvers, 2020). Thus, developing and expanding relationships with regulators across the globe has remained one of the main priorities of the SEC (Cox, 2008; SEC, 2014, 2018; White, 2013, 2016). The SEC cooperates with foreign counterparts, *inter alia*, on a regulator-to-regulator basis to facilitate the sharing of critical enforcement and supervisory information[4] and to increase the efficiency of oversight and enforcement matters (Silvers, 2020; White, 2013). Moreover, by communicating frequently with foreign enforcement agencies such as central banks, finance ministries and law-enforcement authorities in other jurisdictions, the SEC seeks to maximize the effectiveness of its role in protecting investors and ensuring the sound regulation of the market (Aguilar, 2015).

A major challenge for this international regulatory effort is the existing differences in the strength of enforcement which may vary between countries as a result of the differences in local legislative backgrounds (Aguilar, 2015; Caramanis et al., 2015; La Porta et al., 1998). The literature shows that countries characterized by a strong rule of law establish more-

[4] The SEC has over 75 formal cooperative arrangements with foreign regulators and law-enforcement agencies (White, 2016).

effective mechanisms to detect and disclose financial-reporting errors and irregularities, while weak rule of law countries are usually associated with a lack of effective detection and reporting processes (Naughton, Rogo, Sunder, & Zhang, 2018; Srinivasan et al., 2015).

As the strength of the domestic institutions with regard to investor protection varies considerably across countries (Leuz, Nanda, & Wysocki, 2003), bilateral international cooperation on oversight and enforcement matters between SEC and other regulators would be more efficient when the latter are domiciled in countries with a strong rule of law (Silvers, 2020). Regulators in countries with developed equity markets, dispersed ownership structures, strong investor rights and strong legal enforcement are more likely to detect accounting irregularities, errors and disclosure inadequacies and, thereby, convey this crucial negative information to the SEC. Hence, cooperation, exchange of information and interaction would be greatly facilitated between regulators operating in compatible strong-law institutional settings (Silvers, 2020).

Relevant information flows from regulators in countries with weak rule of law may be very scant for two main reasons. Firstly, firms in weak-law countries are usually subject to less-rigorous monitoring and enforcement and, therefore, the identification and exposure of irregularities is a less-effective process; thus, relevant information may not be easily identifiable in such contexts. Secondly, operating in institutional settings where investor protection is not a priority, regulators in weak-law countries may invest less in developing, maintaining and furthering cooperation with the SEC on oversight and enforcement matters. In this sense, the informational flow from regulators in weak-rule countries to the SEC may be very limited.

In contrast, establishing more effective channels of information exchange with regulators located in countries with advanced enforcement mechanisms of investor protection would entail the SEC receiving additional, and more-timely, information about the errors and

irregularities of firms domiciled in these strong-law countries. Hence, information passed on to the SEC by regulators in strong-law countries may drive the Division staff to be more cautious and, as a result, to employ more negative language.

However, there is support for a counter argument in the literature. Motivated by the regulatory philosophy of substituted compliance, Naughton et al. (2018) maintain that the SEC would trade-off monitoring intensity for strong enforcement mechanisms in the foreign firm's home country. The authors find that the intensity of SEC's monitoring of foreign firms is a function which depends on the strength of the foreign firm's home country institutional setting. Hence, for foreign companies domiciled in countries with a strong enforcement tradition, the SEC would reduce its monitoring intensity, suggesting a substituted compliance framework.

In light of these approaches, we hypothesize that:

H2: *Ceteris paribus*, regulatory language tone in comment letters is influenced by the domiciliation of foreign firms' enforcement environment.

Foreign firms listed on the U.S. stock exchanges are permitted to prepare financial reports either using U.S. GAAP, IFRS or local GAAP with reconciliation to U.S. GAAP (Naughton et al., 2018; Srinivasan et al., 2015). The options afforded to foreign registrants constitute a rather challenging context for the Division staff, who review reports which are characterized by substantial differences.

The SEC considers that U.S. GAAP provide a higher information content and lead to more detailed disclosures on particular items; whereas IFRS are seen as a looser set of accounting disclosure standards which in some instances do not contain corresponding guidance, and in others contain general guidance that is not directly comparable to the U.S. GAAP requirement (Barth, Landsman, & Lang, 2008; Gietzmann & Isidro, 2013; SEC, 2011a, 2011b, 2012; Zarb, 2006). The SEC argues that IFRS are not as comprehensive as U.S. GAAP

with respect to certain industries or types of common transactions (e.g., utilities), nor do they provide adequate guidance – which may be highly problematic for issuers in certain U.S. industries (SEC, 2011b, 2012). Moreover, two further significant issues are identified according to the staff: firstly, the transparency and clarity of IFRS financial statements could be enhanced and, secondly, there is considerable jurisdictional diversity in the application of IFRS which poses a challenge regarding comparability (SEC, 2011b, 2012).

As a result, the SEC has often voiced serious concerns (Gietzmann & Isidro, 2013; SEC, 2011a, 2011b) and capital markets have also negatively associated lower levels of conformity to U.S. GAAP with lower levels of informativeness (Bradshaw, Bushee, & Miller, 2004). In this vein, the Division staff are highly likely to be extra cautious when foreign registrants do not apply U.S. GAAP and, therefore, they are expected to employ more negative language in their comment letters to enhance disclosure transparency for the benefit of the investors and market. Hence, we hypothesize that:

H3: *Ceteris paribus*, foreign firms with greater accounting distance from the U.S. GAAP receive a more negative regulatory language-tone in comment letters.

3 Data and language-tone measure

3.1 Sample construction

Our sample consists of all foreign companies included in the U.S. national supervisory authority's annual lists of "Foreign companies registered and reporting with the U.S. Securities and Exchange Commission" from 2005 to 2015 (SEC, 2015b).[5] The reference point of our

[5] The end date of 2015 results from the use of the SEC (2015b) list of foreign registrants as of December 31, 2015. The list of foreign registrants has not yet been updated by SEC for the years following 2015, throughout the period of this paper's submission. To overcome this shortcoming, we contacted the SEC and asked for updated data on foreign SEC registrants via a Freedom of Information Act Request. Unfortunately, we were informed that such information is not located or identified in any of SEC's various systems of records; thus, an extension of our sample was unfeasible.

study is the commencement of the public release of SEC comments (Dechow, Lawrence, & Ryans, 2016; Ettredge, Johnstone, Stone, & Wang, 2011). Specifically, the SEC began the dissemination of comment reviews for filings made after August 1, 2004 (SEC, 2004). However, the lengthy review period, combined with SEC's requirement to delay the disclosure of comment letters (45 days following the review completion were initially required for disclosing SEC comments on EDGAR), resulted in no comment-letter announcements in 2004, and thus our comment-letter sample period begins in 2005.

Following Loughran and McDonald's (2011) data filters and requirements, we require foreign firms to have a Compustat unique identifier (GVKEY) and for financial data to be available for regression analysis purposes. We further require firms to be listed on a major, organized stock exchange (NYSE, NASDAQ or AMEX), and we include both American Depository Receipts and companies directly listed on U.S. stock markets. However, we exclude firms trading over-the-counter (OTC) as they are not required to register with the SEC and they are exempt from the 2002 Sarbanes-Oxley Act (Doidge, 2004), while we further eliminate firms with a negative book-to-market ratio (BTM). As our analysis focuses on regulatory language tone, firms without at least one SEC comment letter are excluded from the sample. Finally, in order to examine how home-country institutions shape foreign firms' performance in the host country, we require the cross-listing of firms on U.S. markets. Table 1 reports the impact of the various data filters on our sample. The abovementioned selection criteria provided us with an initial sample of 565 foreign firms and 5,153 comment letters issued to SEC filers. For a comparison of SEC's language tone between foreign and U.S. firms, we also obtain comment-letter data for U.S. companies. We begin with 5,469 U.S. firms and 40,202 comment letters.

As multiple correspondences are possible between the Division of Corporation Finance and the company up until completion of the review, we identify a comment-letter conversation

as the thread of SEC-released comment letters (form type: upload) and the relevant firm-response letters (form type: corresp) recorded under the same unique numeric key provided by Audit Analytics (Conversation ID). Since our focus is on the regulatory language tone, we exclusively consider SEC-initiated comment letters and subsequent comments issued by the Division of Corporation Finance staff related to firm-response letters, meaning that firm responses are excluded from the analysis (similar to Chantziaras et al., 2021). Excluding firm responses, we are left with 1,961 and 15,594 comment-letter conversations for foreign and U.S. firms respectively. Next, we employ a PSM technique, attributable to significant differences between foreign and U.S. firms (e.g., firm size and other comment-letter related characteristics – see Panel A of Table 3), and we create matched pairs of foreign and U.S. companies. The final sample for analysis comprises 455 foreign and 767 U.S. matched firms (or 1,145 matched pairs that correspond to 2,290 comment-letter observations in total, see Section 4.2 for a description of the PSM process).

[Insert Table 1 about here]

SEC comment-letter reviews are obtained from the SEC File Transfer Protocol (FTP) and comment-letter information from the Audit Analytics comment-letter database. According to the notion that SEC comments predominantly refer to annual report filings (Dechow et al., 2016), we focus solely on comment letters related to annual financial statements and their corresponding filing amendments. We then link comment-letter firms to Compustat for financial variables, Bloomberg for country controls and Audit Analytics for accounting-related information, using the Central Index Key (CIK) as identifier.

Table 2, Panel A presents the sample distribution by country of incorporation/organization, where Canada (34.73%), Israel (8.13%) and the United Kingdom (7.25%) represent the countries with the highest sample distribution. Our sample representation, in terms of country, appears to be reasonably proportional with data reported

by the SEC and, thus, does not suffer from any material bias of representation. Concerning the industry concentration, Table 2, Panel B reports the sample's distribution across the 17 Fama-French industry groupings. The highest percentage of comment-letter conversations (25.90%) is addressed to firms in the "Other" industry category, followed by "Banks, insurance companies and other financials" (16.16%), and "Machinery and business equipment" (10.70%).[6]

[Insert Table 2 about here]

3.2 Measuring regulatory language tone

Following prior literature on estimating the tone content of financial documents (Henry & Leone, 2016; Loughran & McDonald, 2011), we operationalize a net language measure to indicate the relative frequencies of words within the comment-letter reviews (see Chantziaras et al., 2021). Contrary to previous studies which focus on disclosures expressing positive/optimistic sentiments (Engelberg, 2008; Henry & Leone, 2016), by their very nature comment letters convey a negative/pessimistic connotation; thus, we expect the dominant use of negative-tone words. For this reason, we use the frequency count of negative words ($NEG_{i.CW}$) for a comment-letter conversation i, based on the comment-letter wordlist (CW) developed by Chantziaras et al. (2021) (see Appendix C of Chantziaras et al. (2021) for a description of the comment-letter wordlist); where $NEG_{i.CW}$ is the percentage of negative words found in comment-letter conversation i. The negativity score of a comment-letter conversation is estimated as follows:

[6] The "Other" Fama-French industry group includes: services, wholesale, hotels, telephone/telegraph communications, radio-TV broadcasters, computer systems, power producers, irrigation systems, air conditioning supplies, sanitary services, advertising specialty, alarm and signaling products, ophthalmic goods, training equipment and simulators, guidance systems, trucks, tractors, trailers, lighting equipment, mineral products, pottery, glass and paper products, office furniture and fixtures, leather goods, tires and inner tubes, plastic and petroleum products, *in-vivo* diagnostics, biological products, commercial printing, and publishing.

$$NEG_{i,cw} = \frac{Number\ of\ negative\ words_{i,cw}}{Total\ number\ of\ words_i} * 100 \quad (1)$$

In contrast with alternative domain-specific (Henry, 2006, 2008; Loughran & McDonald, 2011) and general-purpose dictionaries (General Inquirer and Diction 7) frequently employed in the analysis of financial disclosures, the CW dictionary[7] was specifically developed to examine and efficiently gauge the linguistic attributes of the SEC regulatory authority.[8] Hence, for our SEC comment-letter context the CW wordlist can overcome problems of polysemy, ambiguity and the word-misclassification barrier of alternative wordlists (see Chantziaras et al., 2021).[9]

4 Research design

4.1 Empirical model

Prior studies have emphasized the language tone employed by analysts (Huang et al., 2014a), corporations (i.e. annual reports, restatements, earnings announcements) (Henry, 2008; Loughran & McDonald, 2011) and the media (Tetlock, 2007). In contrast to this producer-driven language, we consider the largely-unexplored area of the supervisor's language (SEC) when reviewing the producers of the disclosures. To study the association between foreign firms and negative language tone in comment letters within a SEC enforcement setting, we take into consideration the factors associated with the likelihood of receiving SEC comments (Cassell et al., 2013), as well as tone determinants, country-level characteristics and a wide

[7] For the development of the CW dictionary, a "bag-of-words" approach was employed, requiring the parsing of comment-letter documents into vectors of words and word counts. Based on the context of word occurrences, a custom-made wordlist was developed by examining words appearing in comment-letter disclosures; these words were characterized as negative whenever the majority of their occurrences indicated a negative connotation (see Chantziaras et al. (2021).

[8] The General Inquirer was developed by Stone Philip and is available at: http://www.wjh.harvard.edu/~inquirer/ (Accessed 28 February, 2022). The Diction 7 wordlist is available at: http://www.dictionsoftware.com/ (Accessed 28 February, 2022).

[9] The majority of words are incorrectly classified within a certain context (Loughran & McDonald, 2011).

range of economic determinants. We build our model specification by drawing upon prior studies (i.e., Cassell et al., 2013; Naughton et al., 2018; Wu & Salomon, 2017). Our dependent variable is the negativity language-tone score (CW_NEG) as a measure of supervisory sanctions meted out to SEC registrants. Moreover, as the Division of Corporation Finance conducts compulsory firm reviews at least once every three years (SEC, 2015a), we follow Cassell et al.'s (2013) research design and measure certain variables over a three-year review window, since they could influence SEC scrutiny at any time during the filing-review process.[10] Thus, we employ the following model:

$$\begin{aligned} \text{CW\_NEG} = {} & \beta_0 + \beta_1 \text{KEYVAR} + \beta_2 \text{SMALLNI} + \beta_3 \text{MATWEAK} + \beta_4 \text{RESTAT} + \beta_5 \text{GC} \\ & + \beta_6 \text{BIG4} + \beta_7 \text{AUTENURE} + \beta_8 \text{AUDISMISSED} + \beta_9 \text{AURESIGNED} \\ & + \beta_{10} \text{SIZE} + \beta_{11} \text{LNAGE} + \beta_{12} \text{LOSS} + \beta_{13} \text{BTM} + \beta_{14} \text{AAER} \\ & + \beta_{15} \text{ZSCORE} + \beta_{16} \text{ROA} + \beta_{17} \text{LEV} + \beta_{18} \text{OPSEG} + \beta_{19} \text{LIT} \\ & + \beta_{20} \text{MERGER} + \beta_{21} \text{TOTWORDS} + \beta_{22} \text{GDP\_G} + \text{Year\_FE} + \text{Ind\_FE} \\ & + \text{Firm\_FE} + \varepsilon \end{aligned} \tag{2}$$

KEYVAR represents the key variables of interest employed to test our hypotheses, namely: FOREIGN, RoL, and GAAP_DIST. For the first hypothesis, we use FOREIGN which measures in a binary fashion whether a particular firm is foreign or not. The corresponding information is derived through the SEC Foreign Private Issuers Database (SEC, 2015b). We use this measure to compare foreign and U.S. domestic firms in terms of the negative regulatory language tone employed in the relevant SEC comment-letter reviews; consistent with our first hypothesis (H1), we expect a positive association between CW_NEG and FOREIGN.

To assess the influence of home-country enforcement on the negative regulatory language tone of U.S.-listed foreign firms (H2), we consider the rule of law index (RoL) as a

[10] Similar to Cassell et al. (2013), we measure MATWEAK, AAER, LOSS, RESTAT and GC variables over a three-year window, as they represent specific changes/events.

measure of financial reporting enforcement that has been widely employed by the relevant literature, while we also sensitivity test for alternative proxies. The rule of law index assesses the extent of a country's compliance with rules and regulations (Kaufmann & Kraay, 2017), where a higher index value represents a stronger rule of law country. Based on the second hypothesis (H2), we expect a positive association between negative regulatory language tone and the country's rule of law.

We examine our third hypothesis (H3) by engaging an accounting distance proxy (GAAP_DIST), estimating the difference between the home-country accounting standards and U.S. GAAP (developed by Bae, Tan, and Welker (2008), as used in Lundholm, Rogo, and Zhang (2014)). As a greater accounting distance from U.S. GAAP could indicate lower accounting quality standards, we predict a positive association between CW_NEG and GAAP_DIST.

Our model specification considers various characteristics that have been found to be influential to comment-letter issuance, such as accounting and audit quality, and other firm-level and country-level characteristics. We begin with a set of variables capturing accounting quality, namely MATWEAK, RESTAT, AAER, GC and SMALLNI (e.g., Cassell et al., 2013; Naughton et al., 2018). In accordance with prior literature (Cassell et al., 2013), we include indicator variables as proxies for previous failures in financial reporting, such as material weaknesses (MATWEAK) and restatements (RESTAT), since both are considered trigger events for SEC comment letters (Sarbanes-Oxley Act Section 408, 2002). With respect to other SEC enforcement actions, receiving an accounting and auditing enforcement release (AAER) or a going concern opinion (GC), both measured in a binary fashion, could indicate problems in a company's financial reporting quality. Following Naughton et al. (2018), we include an indicator variable signaling that the firm's annual net income over total assets is between zero and 0.01 (SMALLNI), consistent with other cross-country studies (e.g., Lang et al., 2006).

We further consider audit-firm characteristics. Big-4 auditors (BIG4) are associated with a higher audit quality, a lower likelihood of receiving SEC comments, and lower remediation costs in terms of rounds and time until the comment-letter resolution (Cassell et al., 2013). Furthermore, Big-4 audit firms have both the experience and resources to address regulatory comments more efficiently, which might result in a less-negative tone. On the other hand, Big-4 auditors may require their clients to report more misstatements and uncertainties in order to lower the potential AAER risk (Campbell, Chen, Dhaliwal, Lu, & Steele, 2014), which could result in more negative SEC language in comment letters. Beyond BIG4, we also consider additional audit characteristics that are associated with perceptions of audit quality, such as the natural logarithm of auditor tenure (AUTENURE), and dummy variables capturing auditor dismissals and resignations (AUDISMISSED and AURESIGNED respectively) (Hennes, Leone, & Miller, 2014; Naughton et al., 2018).

Moving to firm-level characteristics, we employ company size (SIZE), company age (LNAGE), reporting losses (LOSS), book-to-market ratio (BTM), financial distress (ZSCORE), return on assets (ROA), leverage (LEV), operating complexity (OPSEG), merger activity (MERGER) and an indicator for the existence of a legal proceeding involving the firm (LIT); as these are all considered to potentially influence regulatory scrutiny in relation to the issuance of comment letters (Bens, Cheng, & Neamtiu, 2016; Cassell et al., 2013; Naughton et al., 2018). We also augment our model specification with a proxy capturing the length of the document (e.g., Bozanic et al., 2017) by incorporating the number of words in the initial comment letter (TOTWORDS), expressed in thousands. We conclude our model with the annual percentage growth rate of gross domestic product (GDP_G), as this may influence the SEC's perspective when reviewing corporate financial statements.

For all our models, we estimate robust standard errors clustered by firm, including year, industry, and firm-fixed effects to control for unobservable time, industry and cross-sectional

factors respectively. All continuous variables are winsorized at the 1st and 99th percentile to mitigate any effects from outliers. We use the entire sample to test H1, whereas for H2 and H3 we limit our sample to the 455 foreign firms cross-listed in the United States. The Appendix provides detailed definitions and data sources for the variables employed.

4.2 Propensity score matching technique

To test our hypotheses, we employ a PSM approach to moderate the differences between foreign (treatment) firms and U.S. companies (control), and thereby ensure that the two groups share similar characteristics that might affect the regulatory language tone of SEC staff when addressing U.S. firms and foreign firms cross-listed in the United States. Following prior studies (e.g., Bozanic et al., 2017; Gietzmann & Isidro, 2013; Heese et al., 2017; Kubick et al., 2016), we include a set of observable firm characteristics that have been found to affect the SEC's decision to issue a letter. More specifically, in our first-stage probit regression we consider: performance (ROA); firm size (SIZE); growth (BTM); leverage (LEV); the existence of a legal proceeding involving the firm (LIT); restatements (RESTAT); receipt of an accounting and auditing enforcement release (AAER); and material weaknesses (MATWEAK), as previously described (see Section 4.1). Beyond these covariates, we also consider the substantive characteristics of comment letters, as in Heese et al. (2017), namely: the number of core (CORETOPICS) and non-core (NONCORETOPICS) earnings topics in the comment letter; the response time (in days – TIME) from the first comment letter to the "no further comment" letter; the number of communication rounds (ROUNDS) between the SEC and the firm; and the involvement of an SEC supervisor in a firm's comment-letter review (SUPERVISOR).

The necessity of relying upon a PSM technique rests on our observation of significant differences between foreign and U.S. firms, in terms of firm size and other firm-related and comment-letter related characteristics (see Panel A of Table 3 for description). We observe that

foreign firms appear to receive a higher number of comment letters from the SEC, as indicated by the statistically-significant difference in means in terms of the number of communication rounds (ROUNDS) between the SEC and the firm; and there is also a difference in the response time (in days – TIME) from the first comment letter to the "no further comment" letter. Furthermore, the content of comment letters to foreign registrants differs significantly from U.S. firms in terms of non-core earnings topics (NONCORETOPICS) in the comment letter. We winsorize all continuous variables at the 1st and 99th percentiles, while we also cluster standard errors by firms and include year, industry, and SEC office fixed-effects (Boone, Linthicum, & Poe, 2013). The latter effects are included in order to capture potential differences in communication styles across the 11 different groups within the SEC Division of Corporation Finance. Our first-stage prediction model is as follows:

$$\begin{aligned}\text{Prob}(\text{FOREIGN} = 1) = {} & \beta_0 + \beta_1\text{SIZE} + \beta_2\text{ROA} + \beta_3\text{LEV} + \beta_4\text{BTM} + \beta_5\text{LIT} + \\ & \beta_6\text{RESTAT} + \beta_7\text{AAER} + \beta_8\text{MATWEAK} + \beta_9\text{CORETOPICS} + \beta_{10}\text{NONCORETOPICS} + \\ & \beta_{11}\text{TIME} + \beta_{12}\text{ROUNDS} + \beta_{13}\text{SUPERVISOR} + \text{Year\_FE} + \text{Ind\_FE} + \\ & \text{SEC\_OFFICE\_FE} + \varepsilon\end{aligned} \tag{3}$$

We present the results of the first stage regression in Panel B of Table 3, in which the dependent variable is FOREIGN. The overall model is significant (Wald χ^2=504.711, p<.001), while nine out of the 13 covariates attain statistically-significant coefficients at 1%. Next, we calculate propensity scores using the predicted probabilities from the probit regression and we match each foreign firm to a control firm with the closest propensity score, under a nearest-neighbor matching approach without replacement and a caliper distance of (δ=0.1) (Shipman, Swanquist, & Whited, 2017). Our matching algorithm ensures that the 1,145 matched pairs belong to the same year and two-digit SIC code. Considering that each of the 11 groups of the SEC Division of Corporation Finance specializes in specific industries (i.e., two-digit SIC codes – see https://www.sec.gov/corpfin/division-of-corporation-finance-standard-industrial-

classification-sic-code-list for the relevant cross-walk), the matched pairs we create should be reviewed by the same group within the SEC Division of Corporation Finance. Following Bens et al. (2016), we assess the quality of the match by examining the covariate balance between treatment and control samples (Panel C of Table 3). We observe that the differences in means are not statistically significant, while the standardized differences of the sample subsequent to the PSM exceed the threshold of ±20 and, thus, clearly indicate that the confounding factors are balanced across the two samples (Rosenbaum & Rubin, 1983).

[Insert Table 3 about here]

4.3 Descriptive statistics

In Table 4, we provide descriptive statistics for the entire sample, for foreign and U.S. firms. We also compare the means and the corresponding statistical significance between the two groups. The negative regulatory language tone (CW_NEG) differs significantly between the United States and foreign SEC registrants for all country-specific variables (RoL and GDP_G) and for some of the firm-specific controls (BIG4, AUTENURE, LNAGE, LOSS, and TOTWORDS).

More specifically, the statistically-significant difference in means of CW_NEG between U.S. and foreign firms (3.068 and 3.171 respectively) indicates the negative connotation conveyed by the comment letters to foreign registrants. Additionally, comment letters to foreign firms appear to be lengthier when compared with their U.S. counterparts, as suggested by the average of TOTWORDS (1.47 and 1.06 respectively).[11] Table 4 also shows that firms receiving a comment letter have: a mean ZSCORE of 0.858 (median = 1.356),

[11] Considering this difference in word counts between comment letters to cross-listed foreign and U.S. firms, we perform additional tests attempting to alleviate concerns over conducting analyses across comparable comment letters. Having calculated the difference in word counts between each matched pair, we exclude from the analyses those pairs with more than one standard deviation in word count difference. Our core results (untabulated) remain qualitatively similar, except for the GAAP_DIST coefficient which becomes significant at 5%.

suggesting relatively-good financial health; a mean ROA ratio of 0.098 (median = 2.97); have not been particularly active in M&A (mean of MERGER is 0.044) or been subject to litigations (mean of LIT is 0.182). Moreover, the majority of our sample firms have not received an AAER, did not report any losses (LOSS) or restate their filings (RESTAT), did not receive a going concern opinion (GC) and were not subject to a material weakness (MATWEAK); while the majority are audited by a Big-4 auditor and have experienced low auditor dismissals (AUDISMISSED) or resignations (AURESIGNED).

With respect to the home-country control variables, the mean (median) of RoL is 1.325 (1.536), showing that sample firms are, on average, domiciled in quite strong enforcement countries. Considering the legal origin (C_LAW), the majority of the sample firms are located within a common law system; while the average GDP growth is 2.019.

[Insert Table 4 about here]

Table 5 provides the correlations between the tone measure and country-level and SEC characteristics, firm-specific factors, and other factors related to the likelihood of receiving SEC comments. Upon examining the Pearson's correlation matrix, the CW_NEG has a positive correlation with FOREIGN. We also observe a moderately-high correlation coefficient between LEV and SIZE (0.60). Other inferences suggest that multicollinearity is not a serious problem. Additionally, we further report the variance inflation factors (VIF) under each model, which are all lower than the conservative cut-off value of 5 (e.g., Studenmund, 2016), implying no multicollinearity.

[Insert Table 5 about here]

5 Empirical results

In Table 6, we report the regression results for our hypotheses, using the full sample of foreign and U.S. firms (Column 1 – H1), and the sample of 455 foreign firms cross-listed in

the United States (Columns 2 and 3, H2 and H3 respectively). Drawing upon Column 1, the results are consistent with H1, since the coefficient estimated for the foreignness variable (FOREIGN) is positive and statistically significant at the 1% level, suggesting that foreign SEC registrants are subject to a more negative regulatory language-tone in their SEC reviews compared with U.S. firms. Indicatively, foreign firms exhibit an increase in negative regulatory language-tone by 27.76% ($e^{-0.245}$ - 1 = 0.2776), or in absolute terms a 3.99% more negative tone.[12] Our results indicate that the negative language tone of the U.S. regulator is sensitive to firm age ($p < 0.10$) with a negative sign, illustrated by a less-negative tone content in comment letters for larger companies. Most coefficients across firm-specific variables have the predicted sign (except for LOSS). The *R*-squared is 63.87%, which is consistent with prior textual-analysis literature examining tone determinants (Henry & Leone, 2016). Overall, the results support the view that foreign firms receive a more-negative language tone in comment letters; thus, we provide support for H1.

[Insert Table 6 about here]

In Column 2 of Table 6, we further examine the role of the home-country enforcement environment (H2) on SEC language tone. The coefficient of the RoL measure is positive and statistically significant at the 1% level, demonstrating that SEC reviewers use more negative-tone words in their comments to firms from strong enforcement regimes, providing support for H2. In accordance with our expectations (H3), the coefficient of GAAP_DIST (Column 3 of Table 6) is positive and statistically significant ($p < 0.01$); supporting the notion that greater differences between home and host accounting standards produce more negative-tone words in SEC comment letters.

[12] This is estimated as 27.76% * 3.12% (3.12% is the average CW_NEG obtained from Table 4).

6 Sensitivity analysis

We probe the sensitivity of our results by considering alternative specifications for the dependent variable, as well as for the financial reporting enforcement variables. Additionally, we enrich our model specification with several alternative variables, such as controlling for SEC-specific characteristics, including additional firm-level and country-level controls. We further repeat our analyses by considering alternative sample constructs.

6.1 Alternative definitions of dependent variable and financial reporting enforcement

We sensitivity test our findings using the overall (positive and negative) language-tone measure of the comment letter (CW_TONE) as our dependent variable; we observe that our inferences do not change.[13] Second, we employ alternative definitions of financial reporting enforcement. Specifically, we substitute the rule of law (RoL) proxy with an overall measure of a country's enforcement strength (ENF_INDEX), calculated as the mean score of: a) efficiency of judicial system, b) rule of law and c) degree of government corruption as defined by La Porta et al. (1998). Next, we employ an audit and enforcement index (AUD_ENF), measuring the effectiveness of a country's auditing and accounting enforcement (Brown, Preiato, & Tarca, 2014). Our inferences remain intact for the alternative enforcement measures, since both attain positive and statistically-significant coefficients at 1%.

6.2 Controlling for SEC-specific characteristics

We test the possibility that SEC language tone is due to SEC-specific characteristics. The SEC, like many modern organizations preoccupied with efficiency and operating under certain resource constraints, must achieve its goals within a particular budget and by engaging

[13] We operationalize the regulatory language (CW_TONE) measure by subtracting the percentage of positive words from the respective percentage of negative words employed in a comment-letter conversation. The CW_TONE variable is calculated as follows: $CW\_TONE_i = CW\_NEG_i - CW\_POS_i$,; where CW_NEG_i and CW_POS_i represent the equal-weighted frequency count of negative and positive words scaled by the total word count in comment-letter correspondence *i*, based on the CW wordlist developed by Chantziaras et al. (2021).

specific human-capital expertise (Ghemawat & Ricart Costa, 1993). Thus, we examine whether the SEC's resource-dependent characteristics impact on its regulatory language tone. To this end, we consider the SEC Division of Corporation Finance budget (BUDGET), where higher levels of filing review funding would suggest a more meticulous review process. Further, prior auditing and corporate governance literature suggests that the presence of accounting expertise on corporate committees or oversight boards should entail an improvement in the quality of the relevant audit procedures (Badolato, Donelson, & Ege, 2014; Caramanis et al., 2015); thus, we control for the number of accountants conducting the review (ACCOUNT). Specifically, the Division of Corporation Finance performs the comment-letter process through its 11 offices (SEC, 2015a). Each office specializes in a primary industry and conducts filing reviews of SEC registrants with specific SIC codes. Accordingly, we collect information through a Freedom of Information Act Request regarding the individual SEC offices and we further control for the number of male (MALE) and female SEC reviewers and the average reviewer age in each SEC office (AGE). Overall, our findings suggest that increased SEC funding is associated with a more-negative language tone in comment letters ($p < 0.01$), tentatively suggesting a more meticulous audit. However, no other SEC-dependent characteristic seems to have a significant impact on the regulatory language tone, while our inferences remain unchanged.

6.3 Variable omission

We augment our model with additional firm-level control variables (i.e., financial reporting quality, ownership structure, single-listed, filing type examined by the SEC staff, ADR status, importance of comment letter) and country-level controls which may be associated with the SEC's comment-letter tone; these are not included in our main analyses due to limitations in data availability.

First, we proxy financial reporting quality by considering earnings quality (ABSDA). Since earnings management can involve either income-decreasing or income-increasing

accruals (Kim, Park, & Wier, 2012), we use the absolute value of discretionary accruals from the modified Jones model, adjusted for performance in the year prior to the comment-letter announcement (Kothari, Leone, & Wasley, 2005). Our results remain qualitatively similar to our baseline models (except for the GAAP_DIST coefficient $p < 0.05$), while the coefficient of ABSDA is positive and statistically significant (at 10% or better) across all model specifications.

Second, we augment the model with a variable aggregating the stake owned by U.S. investors (US_OWN).[14] Naughton et al. (2018) find that the SEC's monitoring intensity is influenced by the U.S. investor holdings of U.S. firms, and thus we include this variable to capture the effect. We observe that our inferences remain unchanged, since FOREIGN, RoL and GAAP_DIST attain positive and statistically-significant coefficients at 1%.

Third, we augment our model with an indicator representing single-listed foreign firms (only in the United States – SINGLELISTED (Naughton et al., 2018)), and observe that our inferences remain unchanged. Additionally, we re-estimate our analyses including indicator variables capturing 20-F and 40-F reporting firms, since these filing types are associated with different durations in our reporting period (i.e., forms 40-F and 20-F should be submitted within six months of fiscal year end, while for form 10-K this period varies from 60 (for large filers) up to 90 days) and/or use different accounting standards. Controlling for filing types (20-F and 40-F) does not affect our inferences.

Fourth, to the extent to which home-market characteristics shape the type of listing on the U.S. markets (Boubakri, Cosset, & Samet, 2010), we include an American Depository Receipt (ADR) proxy. The choice of ADRs could partially substitute a weak domestic legal

[14] We collect each firm's ownership structure on a yearly basis (i.e., at the end of each calendar year – December 31), through Thomson Reuters Eikon database (similar to prior studies e.g., Abdelsalam, Chantziaras, Batten, & Aysan, 2021). Using this source, we are able to identify the nationality of each shareholder, and to create a variable aggregating the stake owned by U.S. investors (US_OWN).

system (Reese & Weisbach, 2002) and further represent a commitment to improved corporate disclosures (Chong & Lopez-de-Silanes, 2007). The inclusion of the ADR indicator does not alter our inferences.

Fifth, in terms of the issues addressed, not all comment letters can be considered equal (Dechow et al., 2016). Hence, we further partition our comment-review sample into salient and trivial conversations. Considering the textual-analysis setting employed, we classify comment-letter conversations as important if at least one comment letter within the correspondence includes a SEC staff request for a filing amendment (usually containing the phrase "please amend your filing…"). On the other hand, comment letters in which SEC reviewers request further information or clarifications regarding company disclosures are considered trivial. Correspondingly, our results report that the important comment-letter conversations (IMPORTANT) are associated with a more negative tone ($p < 0.01$), while core results remain the same.

Sixth, we alter the definition of the firm age variable employed in our model (i.e., the number of years the company appears in Compustat) to represent the number of years the company is listed in the United States (LN_IPO_AGE); information is obtained for each firm's listed date/IPO date in the United States through Compustat. The rationale is that using the number of years a firm is listed in the country may be a more effective proxy, attributable to a higher level of SEC familiarity compared with more recently-listed firms. The incorporation of this variable yields qualitatively similar results, since all variables of interest attain positive and statistically-significant coefficients at 1%.

Finally, we assess the impact of country-level controls which may be associated with the SEC's comment-letter tone. Specifically, we proxy for the home country's level of corruption (CORRUPT) (Transparency International, 2013). To facilitate interpretation, we multiply the corruption index with (-1), so that higher values denote greater corruption. Firms

domiciled in highly-corrupt countries generally operate in weaker enforcement environments (Healy & Serafeim, 2016), suggesting disclosures which are less value-relevant and of lower quality. Additionally, we augment the model with the country's exchange market capitalization (C_MCAP), as this may influence the SEC's perspective when reviewing corporate financial statements. Our core results do not change with the incorporation of these country-level control variables.

6.4 Alternative sample constructs

We also employ alternative sample constructs. More specifically, we limit our sample to the years after 2007 in order to ensure results are not influenced by the 20-F reconciliation change (e.g., Naughton et al., 2018); we then also limit our sample to the years after 2012, which marks the SEC's shift in thinking to condorsement as an alternative means of transitioning to IFRS (e.g., Adhikari, Betancourt, & Alshameri, 2014). Additionally, we mitigate concerns regarding our sample being subject to any material bias of representation and repeat empirical tests after excluding foreign firms (and their relevant matched pair through the PSM process) from: a) Canada; b) Israel; c) UK; d) all the aforementioned three countries; and e) from countries with less than 5 observations (Chantziaras et al., 2021). These additional tests yield similar associations with our core results.

To ensure that the severity of comment letters does not influence our inferences, we classify all comment letters contained in the initial sample employed in this study as being either important or trivial (i.e., considered important if at least one comment letter within the correspondence includes a SEC staff request for a filing amendment – usually containing the phrase "please amend your filing…"). Next, we re-perform the PSM technique by employing the same covariates described in Section 4.2, and we match a set of foreign firms that fall into the important category against a set of U.S. firms that also fall into the important category. Our matching algorithm creates 579 matched pairs of foreign and U.S. companies, while we ensure

that all matched pairs belong to the same year and two-digit SIC code.[15] Repeating our analyses using this sample yields interesting associations, since the coefficients of variables of interest remain positive and statistically significant at the 1% level, apart from the GAAP_DIST coefficient which is significant at the 5% level. These additional analyses further suggest that foreignness (FOREIGN), home-country enforcement environment (RoL), and the differences between home and host accounting standards (GAAP_DIST) are all contributing factors to a more negative tone from the SEC.

As a final test, and in the spirit of Naughton et al. (2018), we additionally consider country-fixed effects in our model; however, the results remain unchanged apart from the coefficient of RoL which becomes significant at 10%.

7 Conclusion

In this study, we examine whether regulatory oversight bodies employ differentiated levels of language negativity as a mechanism to enhance enforcement. We bring to the fore comment letters which are primarily comprised of qualitative information and therefore constitute an ideal setting to study regulatory language tone. We study foreign firms registered on the U.S. stock exchanges since they significantly contribute to domestic, U.S. and international economies, and are considered risky due to their greater tendency towards accounting irregularities and errors. We frame our investigation by drawing upon cognitive psychology research which promulgates that an intensification of language negativity is related to the conveyance of stronger messages to recipients.

[15] In untabulated results, we assess the quality of the match (i.e., covariate balance) which reveals no significant differences between the treatment and control samples. We observe that the differences in means are not statistically significant, while the standardized differences of the sample subsequent to the PSM exceed the threshold of ±20 and, thus, clearly indicate that the confounding factors are balanced across the two samples (Rosenbaum & Rubin, 1983).

Employing a sample of 2,290 firm-year observations for the estimation window 2005-2015, we show that the language tone employed in SEC comments is more negative for the U.S.-listed foreign firms. We argue that the SEC employs more negative language in the case of riskier groups in order to convey stricter messages to the recipient foreign firms and, since comment letters are made available to the public, to provide a more informative picture to investors and market participants.

Further, we demonstrate that language negativity is more intense for foreign firms from strong-law countries. We argue that bilateral international cooperation on oversight and enforcement matters between the SEC and regulators domiciled in countries with advanced institutions of investor protection is more efficient; this is since the latter are more likely to detect accounting irregularities, errors, and disclosure inadequacies and are more likely to convey this crucial negative information to the SEC. We also demonstrate that the SEC employs more negative language tones in their comment letters to foreign firms who do not apply U.S. GAAP. This is attributed to the fact that both the SEC and capital markets equate lower levels of conformity to U.S. GAAP with lower levels of informativeness.

Our study has important implications for policymakers, managers, investors and analysts. Language negativity as an element of the enforcement process may be crucial for strengthening/reorganizing existing procedures in the case of other oversight institutions in the United States, as well as for regulators in other countries that wish to enhance investor protection. Managers of foreign firms should be aware that the negative SEC language tone is less pronounced in the case of firms employing U.S. GAAP. This may constitute an incentive for selecting U.S. GAAP over home-country accounting standards with reconciliation to U.S. GAAP or IFRS.

Investors and analysts should be aware that the employment of stricter language in comment letters should be interpreted as an expression of cautiousness on behalf of the

regulator and may be associated with riskier cases which necessitate profound, analytical assessments. Thus, language negativity could be usefully factored into their analyses. Moreover, on the basis that language negativity brings about significant market reactions (Chantziaras et al., 2021) and that foreign firms are more likely to receive more negative language from the regulator, our results might be important to portfolio decisions or when lenders use foreign firms' equity as collateral against lending.

Our study is characterized by certain limitations which, however, pave the way for future research. Our dataset is designed solely for the U.S. setting, and so it limits the potential generalization of our results. Thus, it is important to examine whether these findings hold in other countries and other regulatory bodies (e.g. PCAOB, FED), or whether different enforcement policies are applied. Moreover, we narrow down our examination of language negativity to comment letters. Future research could expand this by bringing to the fore other regulatory reports. Our investigation is limited to specific factors that determine tone negativity. Future research is needed on the regulatory, audit and corporate outcomes of tone negativity (e.g. restatements, write-downs, refiling, audit fees and market risk). Moreover, researchers could expand our work to provide further insights into how the SEC factors into their assessment the intensity of enforcement mechanisms in a foreign firm’s country of origin, and how this affects language tone in comment letters. Finally, it would be extremely useful, although subject to inherent limitations, for future researchers to capture the multiparametric regulatory risk and provide measurements and operationalizations.

References

Abdelsalam, O., Chantziaras, A., Batten, J. A., & Aysan, A. F. (2021). Major shareholders' trust and market risk: Substituting weak institutions with trust. *Journal of Corporate Finance*, 66, 101784. http://doi.org/10.1016/j.jcorpfin.2020.101784.

Adhikari, A., Betancourt, L., & Alshameri, F. (2014). The SEC's proposed IFRS roadmap: An analysis of comment letters using content analysis and textual software. *Journal of International Accounting, Auditing and Taxation*, 23 (2), 98-108. http://doi.org/10.1016/j.intaccaudtax.2014.07.001.

Aguilar, L. A. (2015). Preparing for the regulatory challenges of the 21st century. Washington, DC: Securities Exchange Commission. Retrieved from: http://www.sec.gov/news/speech/preparing-for-regulatory-challenges-of-21st-century.html. Accessed 28 February, 2022.

Badolato, P. G., Donelson, D. C., & Ege, M. (2014). Audit committee financial expertise and earnings management: The role of status. *Journal of Accounting and Economics*, 58 (2-3), 208-230. http://doi.org/10.1016/j.jacceco.2014.08.006.

Bae, K. H., Tan, H., & Welker, M. (2008). International GAAP differences: The impact on foreign analysts. *The Accounting Review*, 83 (3), 593-628. http://doi.org/10.2308/accr.2008.83.3.593.

Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research*, 46 (3), 467-498. http://doi.org/10.1111/j.1475-679X.2008.00287.x.

Baumeister, F. R., Bratslavsky, E., Finkenauer, C., & Vohs, D. K. (2001). Bad is stronger than good. *Review of General Psycology*, 5 (4), 323-370. http://doi.org/10.1037//1089-2680.5.4.323.

Bens, D. A., Cheng, M., & Neamtiu, M. (2016). The impact of SEC disclosure monitoring on the uncertainty of fair value estimates. *The Accounting Review*, 91 (2), 349-375. http://doi.org/10.2308/accr-51248.

Bhattacharya, U., Galpin, N., & Haslem, B. (2007). The home court advantage in international corporate litigation. *The Journal of Law and Economics*, 50 (4), 625-660. http://doi.org/10.1086/519817.

Boone, J. P., Linthicum, C. L., & Poe, A. (2013). Characteristics of accounting standards and SEC review comments. *Accounting Horizons*, 27 (4), 711-736. http://doi.org/10.2308/acch-50551.

Boubakri, N., Cosset, J.-C., & Samet, A. (2010). The choice of ADRs. *Journal of Banking & Finance*, 34 (9), 2077-2095. http://doi.org/10.1016/j.jbankfin.2010.01.016.

Bozanic, Z., Dietrich, R. J., & Johnson, B. A. (2017). SEC comment letters and firm disclosure. *Journal of Accounting and Public Policy*, 36 (5), 337-357. http://doi.org/10.1016/j.jaccpubpol.2017.07.004.

Bradshaw, M. T., Bushee, B. J., & Miller, G. S. (2004). Accounting choice, home bias, and U.S. investment in non-U.S. firms. *Journal of Accounting Research*, 42 (5), 795-841. http://doi.org/10.1111/j.1475-679X.2004.00157.x.

Brown, P., Preiato, J., & Tarca, A. (2014). Measuring country differences in enforcement of accounting standards: An audit and enforcement proxy. *Journal of Business Finance & Accounting*, 41 (1-2), 1-52. http://doi.org/10.1111/jbfa.12066.

Brown, V. S., Tian, X. S., & Tucker, J. W. (2018). The spillover effect of SEC comment letters on qualitative corporate disclosure: Evidence from the risk factor disclosure. *Contemporary Accounting Research*, 35 (2), 622-656. http://doi.org/10.1111/1911-3846.12414.

Campbell, J. L., Chen, H., Dhaliwal, D. S., Lu, H.-m., & Steele, L. B. (2014). The information content of mandatory risk factor disclosures in corporate filings. *Review of Accounting Studies*, 19 (1), 396-455. http://doi.org/10.1007/s11142-013-9258-3.

Caramanis, C., Dedoulis, E., & Leventis, S. (2015). Transplanting Anglo-American accounting oversight boards to a diverse institutional context. *Accounting, Organizations and Society*, 42, 12-31. http://dx.doi.org/10.1016/j.aos.2015.01.001.

Cassell, C. A., Dreher, L. M., & Myers, L. A. (2013). Reviewing the SEC's review process: 10-K comment letters and the cost of remediation. *The Accounting Review*, 88 (6), 1875-1908. http://doi.org/10.2308/accr-50538.

Chan, K. H., Guo, Y., & Mo, P. L. L. (2020). Can auditors' local knowledge compensate for a weaker regulatory oversight for the audit quality of foreign companies? *Accounting and Business Research*, 51 (2), 127-155. http://doi.org/10.1080/00014788.2020.1780109.

Chantziaras, A., Koulikidou, K., & Leventis, S. (2021). The power of words in capital markets: SEC comment letters on foreign issuers and the impact of home country enforcement. *Journal of International Accounting, Auditing and Taxation*, 42, 100359. http://doi.org/10.1016/j.intaccaudtax.2020.100359.

Chong, A., & Lopez-de-Silanes, F. (2007). *Investor protection and corporate governance : Firm-level evidence across Latin America*. Washington, DC: Stanford University Press, the World Bank, and the Inter-American Development Bank.

Cox, C. (2008). International business — An SEC perspective. Washington, D.C.: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/news/speech/2008/spch011008cc.htm. Accessed 28 February, 2022.

Davis, A. K., Piger, J. M., & Sedor, L. M. (2012). Beyond the numbers: Measuring the information content of earnings press release language. *Contemporary Accounting Research*, 29 (3), 845-868. http://doi.org/10.1111/j.1911-3846.2011.01130.x.

Dechow, P., Lawrence, A., & Ryans, J. (2016). SEC comment letters and insider sales. *The Accounting Review*, 91 (2), 401-439. http://doi.org/10.2308/accr-51232.

Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC.

Contemporary Accounting Research, 13 (1), 1-36. http://doi.org/10.1111/j.1911-3846.1996.tb00489.x.

Dee, C. C., Lulseged, A., & Zhang, T. (2011). Client stock market reaction to PCAOB sanctions against a Big 4 auditor. *Contemporary Accounting Research*, 28 (1), 263-291. http://doi.org/10.1111/j.1911-3846.2010.01044.x.

den Hertog, J. (2010). Review of economic theories of regulation. Working Papers 10-18, The Netherlands: Utrecht School of Economics. Available at: http://www.uu.nl/sites/default/files/rebo_use_dp_2010_10-18.pdf. Accessed 28 February, 2022.

Dijksterhuis, A., & Aarts, H. (2003). On wildebeests and humans: the preferential detection of negative stimuli. *Psychological Science*, 14 (1), 14-18. http://doi.org/10.1111/1467-9280.t01-1-01412.

Doidge, C. (2004). U.S. cross-listings and the private benefits of control: Evidence from dual-class firms. *Journal of Financial Economics*, 72 (3), 519-553. http://dx.doi.org/10.1016/S0304-405X(03)00208-3.

Douglas, S. P., & Craig, C. S. (2011). Convergence and divergence: Developing a semiglobal marketing strategy. *Journal of International Marketing*, 19 (1), 82-101. http://doi.org/10.1509/jimk.19.1.82.

Druz, M., Petzev, I., Wagner, A. F., & Zeckhauser, R. J. (2020). When managers change their tone, analysts and investors change their tune. *Financial Analysts Journal*, 76 (2), 47-69. http://doi.org/10.1080/0015198X.2019.1707592.

Duro, M., Heese, J., & Ormazabal, G. (2019). The effect of enforcement transparency: Evidence from SEC comment-letter reviews. *Review of Accounting Studies*, 24 (3), 780-823. http://doi.org/10.1007/s11142-019-09503-1.

Engelberg, J. (2008). Costly information processing: Evidence from earnings announcements. Working paper, University of California. Available at: http://rady.ucsd.edu/faculty/directory/engelberg/pub/portfolios/COSTLY_INFO.pdf. Accessed 28 February, 2022.

Ettredge, M., Johnstone, K., Stone, M., & Wang, Q. (2011). The effects of firm size, corporate governance quality, and bad news on disclosure compliance. *Review of Accounting Studies*, 16 (4), 866-889. http://doi.org/10.1007/s11142-011-9153-8.

García, D. (2013). Sentiment during recessions. *The Journal of Finance*, 68 (3), 1267-1300. http://doi.org/10.1111/jofi.12027.

Ghemawat, P., & Ricart Costa, J. E. I. (1993). The organizational tension between static and dynamic efficiency. *Strategic Management Journal*, 14 (S2), 59-73. http://doi.org/10.1002/smj.4250141007.

Gietzmann, M. B., & Isidro, H. (2013). Institutional investors' reaction to SEC concerns about IFRS and US GAAP reporting. *Journal of Business Finance & Accounting*, 40 (7-8), 796-841. http://doi.org/10.1111/jbfa.12027.

Gurun, U. G., & Butler, A. W. (2012). Don't believe the hype: Local media slant, local advertising, and firm value. *The Journal of Finance*, 67 (2), 561-598. http://doi.org/10.1111/j.1540-6261.2012.01725.x.

Healy, P., & Serafeim, G. (2016). An analysis of firms' self-reported anticorruption efforts. *The Accounting Review*, 91 (2), 489-511. http://doi.org/10.2308/accr-51191.

Heese, J., Khan, M., & Ramanna, K. (2017). Is the SEC captured? Evidence from comment-letter reviews. *Journal of Accounting and Economics*, 64 (1), 98-122. http://doi.org/10.1016/j.jacceco.2017.06.002.

Hennes, K. M., Leone, A. J., & Miller, B. P. (2014). Determinants and market consequences of auditor dismissals after accounting restatements. *The Accounting Review*, 89 (3), 1051-1082. http://doi.org/10.2308/accr-50680.

Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18 (1), 38-52. http://doi.org/10.1002/dir.10073.

Henry, E. (2006). Market reaction to verbal components of earnings press releases: Event study using a predictive algorithm. *Journal of Emerging Technologies in Accounting*, 3 (1), 1-19. http://doi.org/10.2308/jeta.2006.3.1.1.

Henry, E. (2008). Are investors influenced by how earnings press releases are written? *Journal of Business Communication*, 45 (4), 363-407. http://doi.org/10.1177%2F0021943608319388.

Henry, E., & Leone, A. J. (2016). Measuring qualitative information in capital markets research: Comparison of alternative methodologies to measure disclosure tone. *The Accounting Review*, 91 (1), 153-178. http://doi.org/10.2308/accr-51161.

Huang, A. H., Zang, A. Y., & Zheng, R. (2014a). Evidence on the information content of text in analyst reports. *The Accounting Review*, 89 (6), 2151-2180. http://doi.org/10.2308/accr-50833.

Huang, X., Teoh, S. H., & Zhang, Y. (2014b). Tone management. *The Accounting Review*, 89 (3), 1083-1113. http://doi.org/10.2308/accr-50684.

Johnston, R., & Petacchi, R. (2017). Regulatory oversight of financial reporting: Securities and exchange commission comment letters. *Contemporary Accounting Research*, 34 (2), 1128-1155. http://doi.org/10.1111/1911-3846.12297.

Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American Psychologist*, 39 (4), 341-350. http://doi.org/10.1037/0003-066X.39.4.341.

Kaufmann, D., & Kraay, A. (2017). The worldwide governance indicators (WGI) project. In: The World Bank. Available at: http://info.worldbank.org/governance/wgi/#home. Accessed May 15, 2022.

Kim, Y., Park, M. S., & Wier, B. (2012). Is earnings quality associated with corporate social responsibility? *The Accounting Review*, 87 (3), 761-796. http://doi.org/10.2308/accr-10209.

Klein, M. W., Peek, J., & Rosengren, E. S. (2002). Troubled banks, impaired foreign direct investment: The role of relative access to credit. *The American Economic Review*, 92 (3), 664-682. http://doi.org/10.1257/00028280260136309.

Kothari, S. P., Leone, A. J., & Wasley, C. E. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics*, 39 (1), 163-197. http://dx.doi.org/10.1016/j.jacceco.2004.11.002.

Kubick, T. R., Lynch, D., Mayberry, A. M., & Omer, T. C. (2016). The effects of regulatory scrutiny on tax avoidance: An examination of SEC comment letters. *The Accounting Review*, 91 (6), 1751-1780. http://doi.org/10.2308/accr-51433.

La Porta, R., Lopez-De-Silanes, F., & Shleifer, A. (2006). What works in securities laws? *The Journal of Finance*, 61 (1), 1-32. http://doi.org/10.1111/j.1540-6261.2006.00828.x.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy*, 106 (6), 1113-1155. http://doi.org/10.1086/250042.

Lang, M., Smith Raedy, J., & Wilson, W. (2006). Earnings management and cross listing: Are reconciled earnings comparable to US earnings? *Journal of Accounting and Economics*, 42 (1), 255-283. http://doi.org/10.1016/j.jacceco.2006.04.005.

Leuz, C. (2006). Cross listing, bonding and firms' reporting incentives: A discussion of Lang, Raedy and Wilson (2006). *Journal of Accounting and Economics*, 42 (1–2), 285-299. http://dx.doi.org/10.1016/j.jacceco.2006.04.003.

Leuz, C., Nanda, D., & Wysocki, P. D. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69 (3), 505-527. http://dx.doi.org/10.1016/S0304-405X(03)00121-1.

Lewis, C. M. (2012). Risk modeling at the SEC: The accounting quality model. Washington, DC: Chief Economist and Director, Division of Risk, Strategy, and Financial Innovation, U.S. Securities & Exchange Commission. Retrieved from: http://www.sec.gov/news/speech/2012-spch121312cmlhtm. Accessed 28 February, 2022.

Liebrecht, C., Hustinx, L., & van Mulken, M. (2019). The relative power of negativity: The influence of language intensity on perceived strength. *Journal of Language and Social Psychology*, 38 (2), 170-193. http://doi.org/10.1177/0261927X18808562.

Liu, B., & McConnell, J. J. (2013). The role of the media in corporate governance: Do the media influence managers' capital allocation decisions? *Journal of Financial Economics*, 110 (1), 1-17. http://doi.org/10.1016/j.jfineco.2013.06.003.

Loughran, T., & McDonald, B. (2011). When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. *The Journal of Finance*, 66 (1), 35-65. http://doi.org/10.1111/j.1540-6261.2010.01625.x.

Loughran, T., & McDonald, B. (2016). Textual analysis in finance and accounting: A survey. *Journal of Accounting Research,* 54 (4), 1187-1230. http://doi.org/10.1111/1475-679X.12123.

Lundholm, R. J., Rogo, R., & Zhang, J. L. (2014). Restoring the tower of Babel: How foreign firms communicate with U.S. investors. *The Accounting Review*, 89 (4), 1453-1485. http://doi.org/10.2308/accr-50725.

Mayew, W. J., & Venkatachalam, M. (2012). The power of voice: Managerial affective states and future firm performance. *The Journal of Finance*, 67 (1), 1-43. http://doi.org/10.1111/j.1540-6261.2011.01705.x.

Mezias, J. M. (2002). Identifying liabilities of foreignness and strategies to minimize their effects: The case of labor lawsuit judgments in the United States. *Strategic Management Journal*, 23 (3), 229-244. http://doi.org/10.1002/smj.220.

Moeller, M., Harvey, M., Griffith, D., & Richey, G. (2013). The impact of country-of-origin on the acceptance of foreign subsidiaries in host countries: An examination of the 'liability-of-foreignness'. *International Business Review,* 22 (1), 89-99. http://doi.org/10.1016/j.ibusrev.2012.02.006.

Naughton, J. P., Rogo, R., Sunder, J., & Zhang, R. (2018). SEC monitoring of foreign firms' disclosures in the presence of foreign regulators. *Review of Accounting Studies*, 23 (4), 1355-1388. http://doi.org/10.1007/s11142-018-9467-x.

Newell, B. R., & Shanks, D. R. (2014). Unconscious influences on decision making: A critical review. *Behavioral and Brain Sciences,* 37 (1), 1-19. http://doi.org/10.1017/S0140525X12003214.

North, D. C. (2016). Institutions and economic theory. *The American Economist,* 61 (1), 72-76. http://doi.org/10.1177/0569434516630194.

Nourayi, M. M. (1994). Stock price responses to the SEC's enforcement actions. *Journal of Accounting and Public Policy*, 13 (4), 333-347. http://dx.doi.org/10.1016/0278-4254(94)90003-5.

PWC. (2021). The comment letter process: US SEC comment letter trends. Retrieved from: http://viewpoint.pwc.com/dt/us/en/pwc/sec_comment_letters/comment_letter_trends_DM/The_comment_letter_process.html. Accessed 28 February, 2022.

Reese, W. A., & Weisbach, M. S. (2002). Protection of minority shareholder interests, cross-listings in the United States, and subsequent equity offerings. *Journal of Financial Economics*, 66 (1), 65-104. http://doi.org/10.1016/S0304-405X(02)00151-4.

Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika,* 70 (1), 41-55. http://doi.org/10.1093/biomet/70.1.41.

Ryans, J. (2021). Textual classification of SEC comment letters. *Review of Accounting Studies*, 26 (1), 37-80. http://doi.org/10.1007/s11142-020-09565-6.

Sarbanes-Oxley Act Section 408. (2002). Enhanced review of periodic disclosures by issuers. In. Available at: http://www.govinfo.gov/content/pkg/COMPS-1883/pdf/COMPS-1883.pdf. Accessed 28 February, 2022.

SEC. (2004). SEC staff to publicly release comment letters and responses. Press Release No. 2004-89. June 24, 2004. Washington, D.C.: U.S. Securities and Exchange Commission. Available at: http://www.sec.gov/news/press/2004-89.htm. Accessed 28 February, 2022.

SEC. (2011a). Work plan for the consideration of incorporating international financial reporting standards into the financial reporting system for U.S. issuers: A comparison of U.S. GAAP and IFRS. Washington, DC: U.S. Securities and Exchange Commission. Available at: http://www.sec.gov/spotlight/globalaccountingstandards/ifrs-work-plan-paper-111611-gaap.pdf. Accessed 28 February, 2022.

SEC. (2011b). Work plan for the consideration of incorporating international financial reporting standards into the financial reporting system for U.S. issuers: An analysis of IFRS in Practice. Washington, DC: U.S. Securities and Exchange Commission. Available at: http://www.sec.gov/spotlight/globalaccountingstandards/ifrs-work-plan-paper-111611-practice.pdf. Accessed 28 February, 2022.

SEC. (2012). Work plan for the consideration of incorporating international financial reporting standards into the financial reporting system for U.S. issuers. Washington, DC: U.S. Securities and Exchange Commission. Available at: http://www.sec.gov/spotlight/globalaccountingstandards/ifrs-work-plan-final-report.pdf. Accessed 28 February, 2022.

SEC. (2014). SEC dialogues with foreign regulatory authorities. Washington, D.C.: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/about/offices/oia/oia_bilateraldialogs.shtml. Accessed 28 February, 2022.

SEC. (2015a). Filing review process. Washington, DC: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/divisions/corpfin/cffilingreview.htm. Accessed 28 February, 2022.

SEC. (2015b). International registered and reporting companies. Washington, DC: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/divisions/corpfin/internatl/companies.shtml. Accessed 28 February, 2022.

SEC. (2018). International enforcement assistance. Washington, D.C.: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/about/offices/oia/oia_crossborder.shtml#mechanisms. Accessed 28 February, 2022.

SEC. (2019). Filing review process. Washington, DC: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/divisions/corpfin/cffilingreview.htm. Accessed 28 February, 2022.

Shipman, J. E., Swanquist, Q. T., & Whited, R. L. (2017). Propensity score matching in accounting research. *The Accounting Review,* 92 (1), 213-244. http://doi.org/10.2308/accr-51449.

Shleifer, A. (2005). Understanding regulation. *European Financial Management,* 11 (4), 439-451. http://doi.org/10.1111/j.1354-7798.2005.00291.x.

Silvers, R. (2020). Cross-border cooperation between securities regulators. *Journal of Accounting and Economics,* 69 (2-3), 101301. http://doi.org/10.1016/j.jacceco.2020.101301.

Soroka, S. N. (2006). Good news and bad news: Asymmetric responses to economic information. *The Journal of Politics,* 68 (2), 372-385. http://doi.org/10.1111/j.1468-2508.2006.00413.x.

Srinivasan, S., Wahid, A. S., & Yu, G. (2015). Admitting mistakes: Home country effect on the reliability of restatement reporting. *The Accounting Review,* 90 (3), 1201-1240. http://doi.org/10.2308/accr-50887.

Studenmund, A. H. (2016). *Using econometrics: A practical guide* (7th ed.). Boston, MA: Pearson.

Tekfi, C. (1987). Readability formulas: An overview. *Journal of Documentation,* 43 (3), 261-273. http://doi.org/10.1108/eb026811.

Tetlock, P. C. (2007). Giving content to investor sentiment: The role of media in the stock market. *The Journal of Finance,* 62 (3), 1139-1168. http://doi.org/10.1111/j.1540-6261.2007.01232.x.

Tetlock, P. C., Saar-Tsechansky, M., & Macskassy, S. (2008). More than words: Quantifying language to measure firms' fundamentals. *The Journal of Finance,* 63 (3), 1437-1467. http://doi.org/10.1111/j.1540-6261.2008.01362.x.

Transparency International. (2013). Corruption perception index 2013. Berlin, Germany: Transparency International. Retrieved from: http://cpi.transparency.org/cpi2013/results/. Accessed 28 February, 2022.

Tsang, E. W. K., & Yip, P. S. L. (2007). Economic distance and the survival of foreign direct investments. *The Academy of Management Journal,* 50 (5), 1156-1168. http://doi.org/10.5465/amj.2007.20159917.

Wade, R. (2007a). The aftermath of the Asian financial crisis: From ‘‘liberalize the market’’ to ‘‘standardize the market’’ and create a ‘‘level playing field’. In B. Muchhala (Ed.), *Ten years after: Revisiting the Asian financial crisis* (pp. 73-94). Washington, DC: Woodrow Wilson International Center for Scholars.

Wade, R. (2007b). A new global financial architecture? *New Left Review,* 46, 113–129. http://newleftreview.org/issues/ii46/articles/robert-wade-a-new-global-financial-architecture.

Wang, K. (2021). Is the tone of risk disclosures in MD&As relevant to debt markets? Evidence from the pricing of credit default swaps. *Contemporary Accounting Research*, 38 (2), 1465-1501. http://doi.org/10.1111/1911-3846.12644.

White, M. J. (2013). Regulation in a global financial system. Washington, D.C.: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/news/speech/2013-spch050313mjw.html. Accessed 28 February, 2022.

White, M. J. (2016). Securities regulation in the interconnected, global marketplace. Washington, D.C.: U.S. Securities and Exchange Commission. Retrieved from: http://www.sec.gov/news/speech/securities-regulation-in-the-interconnected-global-marketplace.html. Accessed 28 February, 2022.

Wu, Z., & Salomon, R. (2017). Deconstructing the liability of foreignness: Regulatory enforcement actions against foreign banks. *Journal of International Business Studies*, 48 (7), 837-861. http://doi.org/10.1057/s41267-017-0092-x.

Yekini, L. S., Wisniewski, T. P., & Millo, Y. (2016). Market reaction to the positiveness of annual report narratives. *The British Accounting Review*, 48 (4), 415-430. http://doi.org/10.1016/j.bar.2015.12.001.

Zarb, B. J. (2006). The quest for transparency in financial reporting. *The CPA Journal*, 76 (9), http://www.questia.com/magazine/1P3-1130955551/the-quest-for-transparency-in-financial-reporting.

Appendix – Variable definitions

Variable	Definition and source
Dependent variable and main variables of interest	
CW_NEG (%)	Frequency count of negative words on the Chantziaras et al. (2021) wordlist scaled by the total number of words in a comment-letter conversation.
FOREIGN	Indicator variable set equal to 1 if firm is classified as a foreign private issuer in the SEC database (SEC, 2015b), and 0 otherwise.
RoL	Home-country rule of law index (Worldwide Governance Indicators created by the World Bank (Kaufmann & Kraay, 2017), as used in La Porta, Lopez-De-Silanes, and Shleifer (2006)).
GAAP_DIST	Difference between the home-country accounting standards and U.S. GAAP (developed by Bae et al. (2008), as used in Lundholm et al. (2014)).
Controls for accounting quality	
SMALLNI	Indicator variable set to equal 1 if the firm's net income over total assets is between 0 and 0.1, and 0 otherwise (Compustat).
MATWEAK	Indicator variable set equal to 1 if the firm reported an internal control material weakness at the year t of the comment-letter announcement or in any of the prior years t-1 or t-2, and 0 otherwise (Audit Analytics).
RESTAT	Indicator variable set equal to 1 if the firm restated its financial statements at the year t of the comment-letter announcement or in any of the prior years t-1 or t-2, and 0 otherwise (Audit Analytics).
GC	Indicator variable set equal to 1 if the firm received a going concern audit opinion at the year t of the comment-letter announcement or in any of the prior years t-1 or t-2, and 0 otherwise (Audit Analytics).
AAER	Indicator variable set equal to 1 if the firm received a SEC Accounting and Auditing Enforcement Release (AAER) at the year t of the comment-letter announcement or in any of the prior years t-1 or t-2, and 0 otherwise.
Auditor-related controls	
BIG4	Indicator variable set to equal 1 if the firm's auditor is a Big-4 audit firm, and 0 otherwise (Audit Analytics).
AUTENURE	Natural logarithm of the number of years during which the auditor has audited the firm (Audit Analytics).
AUDISMISSED	Indicator variable set equal to 1 if the firm's auditor was dismissed in year t or any of the prior years t-1 or t-2, and 0 otherwise (Audit Analytics).
AURESIGNED	Indicator variable set equal to 1 if the firm's auditor resigned in year t or any of the prior years t-1 or t-2, and 0 otherwise (Audit Analytics).
Other control variables	
SIZE	Natural logarithm of total assets (Compustat).
LNAGE	Natural logarithm of one plus the number of years the company appears in Compustat.
LOSS	Indicator variable set equal to 1 if the firm reports below zero earnings before extraordinary items at the year t of the comment-letter announcement or in any of the prior years t-1 or t-2, and 0 otherwise (Compustat).
BTM	Market to book ratio (Compustat).
ZSCORE	Altman's Z-score in the year prior to the comment-letter announcement (Compustat).
ROA	Return on assets (Compustat).
LEV	Leverage is the ratio of total liabilities over total assets (Compustat).
OPSEG	Natural logarithm of one plus the number of business segments reported in the Compustat segments database.
MERGER	Indicator variable set equal to 1 if the firm reports non-zero mergers or acquisitions as reported on a pre-tax basis (AQP) in year t, and 0 otherwise (Compustat).
LIT	Indicator variable set equal to 1 if the firm is named as defendant in year t, and 0 otherwise (Compustat).
TOTWORDS	Total number of words (in thousands) in the initial comment letter, as a proxy for the length of the document.
GDP_G	Annual percentage growth rate of GDP (World Bank).

Variable	Definition and source
Additional covariates for PSM	
CORETOPICS	Number of core-earnings topic issue-codes (i.e., revenues, cost of goods sold, SG&A expenses and other primary operating activities), assigned by Audit Analytics, in the first comment letter from the SEC. For a detailed list of the assignment of issue codes, see Appendix B of (Cassell et al., 2013).
NONCORETOPICS	Number of non-core earnings topic issue-codes (i.e., acquisitions, asset sales, capitalization of expenditures, comprehensive income, consolidation issues such as off-balance sheet items, debt, stock options and compensation, foreign and subsidiary issues, intercompany accounting issues, tax issues, and dividends), assigned by Audit Analytics, in the first comment letter from the SEC. For a detailed list of the assignment of issue codes, see Appendix B of (Cassell et al., 2013).
TIME	The response time (in days) from the first comment letter to the "no further comment" letter, as reported by Audit Analytics.
ROUNDS	The number of letters from the SEC, as reported by Audit Analytics, representing the number of rounds from the first letter to the "no further comment" letter.
SUPERVISOR	1 if a comment-letter review involved a supervisor, i.e., an SEC staff member of the rank of Accounting Branch Chief or above, and 0 otherwise. This variable is based on the organizational chart of the Division of Corporation Finance. For a detailed description see (Heese et al., 2017).

Table 1 Sample selection

Filter	Observations	Observations removed
Foreign firms registered and reporting with SEC (from 2005 to 2015)	2,039	
Compustat GVKEY match	1,663	376
Compustat financial data available	1,518	145
NYSE, NASDAQ or AMEX exchange listing	1,237	281
Book-to-market COMPUSTAT greater than 0	1,224	13
Companies with identified comment letters by Audit Analytics	892	332
Foreign firms cross-listed in the United States	565	327
Number of foreign firms listed on U.S. exchanges with comment letters	565	
Number of comment letters received by foreign firms (form type: upload)	5,153	
Number of comment-letter conversations received by foreign firms	1,961	
Number of U.S. firms with comment letters	5,469	
Number of comment letters received by U.S. firms (form type: upload)	40,202	
Number of comment-letter conversations received by U.S. firms	15,594	
Final sample - following the propensity score matching		
Number of foreign firms listed in the United States	455	
Number of observations for foreign firms listed in the United States	1,145	
Number of U.S. matched sample firms	767	
Number of observations for U.S. matched sample firms	1,145	

Notes: This table presents the impact of data filters on the initial sample size.

Table 2 Sample distribution of firms and comment letters, by country and industry

Panel A: Distribution of sample by country of incorporation

Country	Number of comment-letter conversations	Percentage	Firm frequency	Country representation in sample (foreign firms)	Country representation in SEC (foreign firms)
Argentina	45	1.97%	13	2.86%	1.42%
Australia	21	0.92%	12	2.64%	1.56%
Austria	1	0.04%	1	0.22%	0.03%
Belgium	1	0.04%	1	0.22%	0.23%
Bermuda	9	0.39%	3	0.66%	2.99%
Brazil	74	3.23%	26	5.71%	3.01%
Canada	330	14.41%	158	34.73%	37.44%
Chile	46	2.01%	15	3.30%	1.43%
China	22	0.96%	7	1.54%	1.11%
Colombia	5	0.22%	2	0.44%	0.22%
Denmark	10	0.44%	2	0.44%	0.25%
Finland	13	0.57%	4	0.88%	0.16%
France	17	0.74%	9	1.98%	1.33%
Germany	28	1.22%	11	2.42%	0.96%
Greece	3	0.13%	2	0.44%	0.25%
Hong Kong	15	0.66%	5	1.10%	0.71%
Hungary	1	0.04%	1	0.22%	0.05%
India	30	1.31%	7	1.54%	1.16%
Indonesia	5	0.22%	2	0.44%	0.18%
Ireland	11	0.48%	5	1.10%	0.89%
Israel	103	4.50%	37	8.13%	7.99%
Italy	12	0.52%	4	0.88%	0.59%
Japan	58	2.53%	23	5.05%	2.42%
Korea	7	0.31%	5	1.10%	1.15%
Luxembourg	2	0.09%	2	0.44%	0.68%
Mexico	47	2.05%	18	3.96%	2.27%
Netherlands	36	1.57%	13	2.86%	2.20%
New Zealand	3	0.13%	1	0.22%	0.17%
Norway	5	0.22%	2	0.44%	0.28%
Peru	2	0.09%	2	0.44%	0.18%
Philippines	4	0.17%	1	0.22%	0.14%
Portugal	7	0.31%	2	0.44%	0.12%
Russia	1	0.04%	1	0.22%	0.34%
Singapore	1	0.04%	1	0.22%	0.29%

Country	Number of comment-letter conversations	Percentage	Firm frequency	Country representation in sample (foreign firms)	Country representation in SEC (foreign firms)
South Africa	16	0.70%	6	1.32%	0.71%
Spain	10	0.44%	5	1.10%	0.57%
Sweden	5	0.22%	1	0.22%	0.45%
Switzerland	22	0.96%	7	1.54%	0.83%
Taiwan	16	0.70%	4	0.88%	0.62%
Turkey	5	0.22%	1	0.22%	0.10%
United Kingdom	96	4.19%	33	7.25%	4.31%
United States	1,145	50.00%	767	-	-
Total foreign sample	1,145	50%	455	100%	81.79%
Total U.S. (matched) sample	1,145	50%	767	-	-
Total foreign and U.S. sample	**2,290**	**100%**	**1,222**	**-**	**-**

Panel B: Distribution of sample by industry

Industry	Number of comment-letter conversations	Percentage	Firm frequency
Automobiles	29	1.27%	12
Banks, insurance companies, and other financials	370	16.16%	172
Chemicals	73	3.19%	35
Construction and construction materials	33	1.44%	24
Consumer durables	30	1.31%	16
Drugs, soap, perfumes & tobacco	154	6.72%	77
Food	82	3.58%	43
Machinery and business equipment	245	10.70%	145
Mining and minerals	178	7.77%	91
Oil and petroleum products	178	7.77%	96
Other	593	25.90%	337
Retail stores	42	1.83%	24
Steel works etc.	38	1.66%	18
Textiles, apparel & footwear	18	0.79%	13
Transportation	83	3.62%	48
Utilities	144	6.29%	71
Total	**2,290**	**100%**	**1,222**

Notes: This table illustrates the sample distribution of firms and comment letters by country of incorporation/organization provided by SEC and by industry. Comment-letter conversations are an interconnected series of SEC-initiated comment letters (form type: upload) and related firm response letters (form type: corresp) identified by a unique numeric key (conversation ID) by Audit Analytics. Country representation in SEC indicates the average percentage of SEC foreign issuers by country of incorporation, as reported by the SEC Division of Corporation Finance

for the whole sample period. The remainder of the country representation in SEC (18.22%) includes the following: Antigua, Bahamas, Belize, British West Indies, Curacao, Cyprus, Czech Republic, Dominican Republic, Guernsey, Isle of Man, Jersey, Liberia, Mauritius, Netherlands Antilles, Panama, Papua New Guinea, Poland and Venezuela. For the sample distribution by industry we follow Fama-French's 17-industry group classification. The "Other" Fama-French industry group includes: services, wholesale, hotels, telephone/telegraph communications, radio-TV broadcasters, computer systems, power producers, irrigation systems, air conditioning supplies, sanitary services, advertising specialty, alarm and signaling products, ophthalmic goods, training equipment and simulators, guidance systems, trucks, tractors, trailers, lighting equipment, mineral products, pottery, glass and paper products, office furniture and fixtures, leather goods, tires and inner tubes, plastic and petroleum products, *in-vivo* diagnostics, biological products, commercial printing, and publishing. SEC Staff began publicly filing uploads for any disclosures made after August 1, 2004. Releases of comment-letter conversations are possible after the final resolution of comments. Prior to January 1, 2012, SEC review filings were available no earlier than 45 calendar days following resolution; since this date, comment-letter correspondence has been released no earlier than 20 business days after the final resolution. Thus, the SEC started publicly releasing comment-letter conversations in 2005.

Table 3 Descriptive statistics and first-stage model for the PSM technique

	Foreign firms (N = 1,961)			U.S. firms (N = 15,594)			Std diffs (%)	Mean diff.
Variable	**Mean**	**Median**	**StDev**	**Mean**	**Median**	**StDev**		
SIZE	9.16	9.316	2.703	7.103	7.222	2.353	81.200	-2.057***
ROA	0.975	2.75	17.048	-8.511	2.454	744.215	1.800	-9.486
LEV	0.549	0.545	0.252	0.753	0.57	18.046	-1.600	0.204
BTM	0.77	0.603	0.862	11.864	0.527	777.983	-2.000	11.094
LIT	0.13	0	0.336	0.189	0	0.392	-16.400	0.060***
RESTAT	0.143	0	0.35	0.231	0	0.421	-22.500	0.087***
AAER	0.012	0	0.11	0.014	0	0.118	-1.700	0.002
MATWEAK	0.069	0	0.254	0.1	0	0.299	-10.900	0.030***
CORETOPICS	0.682	0	1.055	0.667	0	1.002	1.500	-0.015
NONCORETOPICS	1.697	1	2.049	1.447	1	1.648	13.400	-0.250***
TIME	104.945	68	112.143	77.406	50	87.585	27.400	-27.539***
ROUNDS	2.98	3	1.501	2.761	2	1.228	15.900	-0.218***
SUPERVISOR	0.789	1	0.408	0.772	1	0.42	4.100	-0.017

Panel B: Results of the first-stage logistic regression to model foreign firm propensity

	(1)	(2)
Variable	**Coefficient**	**Z-statistic**
SIZE	0.338***	(16.61)
ROA	-0.007***	(-4.40)
LEV	-1.065***	(-6.14)
BTM	0.107***	(2.92)
LIT	-0.779***	(-10.11)
RESTAT	-0.237***	(-4.05)
AAER	-0.126	(-0.70)
MATWEAK	-0.129	(-1.52)
CORETOPICS	0.057***	(3.44)
NONCORETOPICS	0.009	(0.84)
TIME	0.002***	(6.56)
ROUNDS	-0.076***	(-3.96)
SUPERVISOR	0.038	(0.79)
Constant	-7.818***	(-10.06)
Year FEs	Yes	
Industry FEs	Yes	
SEC Office FEs	Yes	
Wald χ^2	504.711***	
Pseudo R^2	0.302	
VIF	1.31	
N	17,555	

Panel C: Summary statistics subsequent to propensity score matching

	Foreign firms (N = 1,145)			U.S. firms (N = 1,145)			Std diffs (%)	Mean diff.
Variable	**Mean**	**Median**	**StDev**	**Mean**	**Median**	**StDev**		
SIZE	8.463	8.518	2.566	8.573	8.761	2.568	-4.300	0.110
ROA	0.447	2.925	16.172	-0.252	3.024	19.659	3.900	-0.700
LEV	0.542	0.535	0.245	0.547	0.554	0.225	-1.800	0.004
BTM	0.71	0.56	0.641	0.704	0.527	0.686	0.800	-0.005
LIT	0.167	0	0.373	0.197	0	0.398	-7.900	0.031
RESTAT	0.17	0	0.376	0.184	0	0.388	-3.700	0.014
AAER	0.012	0	0.11	0.023	0	0.149	-8.000	0.010
MATWEAK	0.081	0	0.273	0.085	0	0.279	-1.300	0.003
CORETOPICS	0.67	0	1.026	0.71	0	1.082	-3.800	0.040
NONCORETOPICS	1.57	1	1.895	1.652	1	1.857	-4.300	0.081
TIME	92.086	61	96.598	93.988	60	111.691	-1.800	1.902
ROUNDS	2.901	2	1.448	2.924	3	1.379	-1.600	0.023
SUPERVISOR	0.8	1	0.4	0.783	1	0.412	4.100	-0.017

Notes: This table illustrates the results of the first-stage regressions of the PSM technique (Column 1 and 2 of Panel B

report, respectively, the coefficient estimates and z-statistics of the covariates employed in the probit model, while the dependent variable is FOREIGN), alongside the descriptive statistics prior (Panel A) and subsequent (Panel C) to PSM. We split the sample into foreign and U.S. groups. Beyond the mean, the median and the standard deviation, we also report the differences in mean values of each variable across groups and the statistical significance of differences based on t-tests. The standardized difference in percent is: $100(\bar{x}_{gr1} - \bar{x}_{gr0}/\sqrt{(s^2_{gr1} - s^2_{gr0})/2}$. Where: $\bar{x}_{gr1}$ and $\bar{x}_{gr0}$ $(s^2_{gr1} - s^2_{gr0})$ are the sample mean (variance) in the foreign and U.S. groups. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels respectively, two-tailed. All variables are defined in the Appendix.

Table 4 Descriptive statistics

Variable	Entire sample (N = 2,290)						Foreign firms (N = 1,145)						U.S. firms (N = 1,145)						Mean diff.
	N	25th	Mean	Median	75th	StDev	N	25th	Mean	Median	75th	StDev	N	25th	Mean	Median	75th	StDev	
CW_NEG	2,290	2.56	3.12	3.083	3.624	0.757	1,145	2.63	3.171	3.144	3.671	0.748	1,145	2.5	3.068	3.036	3.559	0.762	-0.103**
FOREIGN	2,290	0	0.5	0.5	1	0.5	1,145	1	1	1	1	0	1,145	0	0	0	0	0	.
RoL	2,290	1.54	1.325	1.536	1.615	0.635	1,145	0.95	1.113	1.615	1.74	0.846	1,145	1.54	1.536	1.536	1.536	0	0.422***
GAAP_DIST	1,115	3	7.889	8	12	4.977	1,115	3	7.889	8	12	4.977	0	.	.	.	.	.	,
SMALLNI	2,290	0	0.1	0	0	0.3	1,145	0	0.099	0	0	0.298	1,145	0	0.101	0	0	0.302	0.003
MATWEAK	2,290	0	0.083	0	0	0.276	1,145	0	0.081	0	0	0.273	1,145	0	0.085	0	0	0.279	0.003
RESTAT	2,290	0	0.177	0	0	0.382	1,145	0	0.17	0	0	0.376	1,145	0	0.184	0	0	0.388	0.014
GC	2,290	0	0.043	0	0	0.203	1,145	0	0.051	0	0	0.219	1,145	0	0.036	0	0	0.186	-0.015
BIG4	2,290	1	0.9	1	1	0.299	1,145	1	0.918	1	1	0.275	1,145	1	0.883	1	1	0.322	-0.035**
AUTENURE	2,290	1.61	2.252	2.197	2.944	1.031	1,145	1.39	2.128	2.197	2.773	0.972	1,145	1.61	2.377	2.303	3.135	1.071	0.249***
AUDISMISSED	2,290	0	0.104	0	0	0.306	1,145	0	0.107	0	0	0.309	1,145	0	0.102	0	0	0.303	-0.004
AURESIGNED	2,290	0	0.019	0	0	0.137	1,145	0	0.02	0	0	0.14	1,145	0	0.018	0	0	0.134	-0.002
SIZE	2,290	7.01	8.518	8.671	10.22	2.567	1,145	6.84	8.463	8.518	10.09	2.566	1,145	7.11	8.573	8.761	10.35	2.568	0.110
LNAGE	2,290	2.49	2.946	2.89	3.466	0.695	1,145	2.4	2.737	2.773	3.045	0.533	1,145	2.57	3.154	3.219	3.892	0.771	0.417***
LOSS	2,290	0	0.362	0	1	0.481	1,145	0	0.383	0	1	0.486	1,145	0	0.341	0	1	0.474	-0.042*
BTM	2,290	0.33	0.707	0.538	0.863	0.663	1,145	0.33	0.71	0.56	0.892	0.641	1,145	0.32	0.704	0.527	0.849	0.686	-0.005
ZSCORE	2,290	0.66	0.858	1.356	1.853	2.666	1,145	0.57	0.953	1.315	1.741	1.796	1,145	0.73	0.763	1.399	1.955	3.313	-0.190
AAER	2,290	0	0.017	0	0	0.131	1,145	0	0.012	0	0	0.11	1,145	0	0.023	0	0	0.149	0.010
ROA	2,290	0.09	0.098	2.97	6.957	18	1,145	-0.21	0.447	2.925	6.939	16.17	1,145	0.39	-0.252	3.024	6.964	19.66	-0.700
LEV	2,290	0.39	0.545	0.547	0.711	0.235	1,145	0.37	0.542	0.535	0.717	0.245	1,145	0.4	0.547	0.554	0.699	0.225	0.004
OPSEG	2,290	0.69	0.898	0.693	0.693	0.423	1,145	0.69	0.881	0.693	0.693	0.409	1,145	0.69	0.915	0.693	0.693	0.436	0.034
MERGER	2,290	0	0.044	0	0	0.205	1,145	0	0.038	0	0	0.192	1,145	0	0.05	0	0	0.218	0.011
LIT	2,290	0	0.182	0	0	0.386	1,145	0	0.167	0	0	0.373	1,145	0	0.197	0	0	0.398	0.031
TOTWORDS	2,290	0.71	1.265	1.021	1.5	1.007	1,145	0.83	1.47	1.216	1.63	1.171	1,145	0.63	1.06	0.853	1.263	0.757	-0.410***
GDP_G	2,290	1.6	1.881	2.224	2.667	2.095	1,145	1.28	2.329	2.372	3.707	2.391	1,145	1.6	1.433	2.224	2.426	1.631	-0.895***

Notes: This table presents the descriptive statistics for the variables employed in our main analyses, for the entire sample, and for the foreign and U.S. firms separately. In the last column, we report the differences in mean values of each variable across groups and the statistical significance of differences based on t-tests. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels respectively, two-tailed. All variables are defined in the Appendix.

Table 5 Pearson correlation matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. CW_NEG	1											
2. FOREIGN	0.07***	1.00										
3. RoL	0.03	-0.33***	1.00									
4. GAAP_DIST	-0.04	-0.03	-0.40***	1.00								
5. SMALLNI	-0.02	0.00	0.04*	0.05*	1.00							
6. MATWEAK	-0.04**	-0.01	-0.09***	0.04	-0.02	1.00						
7. RESTAT	-0.04*	-0.02	0.03	-0.02	0.01	0.23***	1.00					
8. GC	0.01	0.04*	0.02	-0.11***	-0.05**	0.12***	0.08***	1.00				
9. BIG4	0.01	0.06***	-0.06***	0.08***	0.00	-0.09***	-0.07***	-0.24***	1.00			
10. AUTENURE	0.01	-0.12***	0.21***	-0.15***	0.07***	-0.14***	-0.12***	-0.13***	0.23***	1.00		
11. AUDISMISSED	-0.03	0.01	-0.14***	0.10***	-0.04*	0.11***	0.08***	0.06***	-0.08***	-0.55***	1.00	
12. AURESIGNED	0.04**	0.01	0.07***	-0.10***	-0.04*	0.02	0.06***	0.13***	-0.13***	-0.23***	-0.02	1.00
13. SIZE	0.01	-0.02	-0.03	0.23***	0.30***	-0.12***	-0.11***	-0.32***	0.36***	0.30***	-0.07***	-0.15***
14. LNAGE	0.01	-0.30***	0.16***	-0.08***	0.01	-0.09***	-0.07***	-0.18***	0.19***	0.41***	-0.08***	-0.09***
15. LOSS	-0.05**	0.04**	0.08***	-0.22***	-0.05**	0.16***	0.09***	0.26***	-0.17***	-0.15***	0.03	0.10***
16. BTM	0.00	0.00	-0.05**	-0.01	0.22***	0.08***	0.02	0.07***	-0.01	-0.03	0.05**	-0.05**
17. ZSCORE	-0.01	0.04*	-0.06***	0.15***	0.07***	-0.02	-0.06***	-0.34***	0.20***	0.13***	0.00	-0.10***
18. AAER	-0.03*	-0.04*	0.02	-0.03	-0.02	0.01	0.04**	-0.03	0.01	0.04**	-0.02	0.01
19. ROA	0.00	0.02	-0.10***	0.17***	0.01	-0.06***	-0.08***	-0.39***	0.24***	0.16***	-0.05**	-0.12***
20. LEV	0.00	-0.01	-0.07***	0.17***	0.33***	-0.04*	-0.02	-0.10***	0.14***	0.11***	-0.03	-0.04**
21. OPSEG	-0.03	-0.04*	-0.05**	0.04	0.02	-0.05**	-0.04*	-0.07***	0.09***	0.11***	-0.01	-0.03
22. MERGER	-0.03	-0.03	-0.01	0.00	0.01	0.01	-0.03	-0.04*	0.03	0.05**	-0.01	0.00
23. LIT	0.00	-0.04*	0.13***	0.04	0.07***	-0.02	-0.06***	-0.05**	0.10***	0.20***	-0.08***	-0.04**
24. TOTWORDS	-0.28***	0.20***	-0.06***	0.10***	0.15***	0.08***	0.08***	0.02	0.02	-0.01	0.00	0.00
25. GDP_G	-0.02	0.21***	-0.29***	0.20***	-0.04*	-0.03	-0.01	0.02	0.00	-0.11***	0.02	0.00

Variable	13	14	15	16	17	18	19	20	21	22	23	24
13. SIZE	1.00											
14. LNAGE	0.36***	1.00										
15. LOSS	-0.37***	-0.22***	1.00									
16. BTM	0.13***	0.03	0.23***	1.00								
17. ZSCORE	0.34***	0.17***	-0.32***	-0.01	1.00							
18. AAER	0.07***	0.06***	0.00	-0.02	-0.01	1.00						
19. ROA	0.37***	0.22***	-0.44***	-0.05**	0.58***	0.01	1.00					
20. LEV	0.60***	0.13***	-0.07***	0.13***	0.08***	-0.01	0.04*	1.00				
21. OPSEG	0.22***	0.19***	-0.13***	0.02	0.07***	-0.01	0.08***	0.09***	1.00			
22. MERGER	0.06***	0.08***	-0.02	-0.01	0.04*	0.05**	0.03	0.03	0.16***	1.00		

Variable	13	14	15	16	17	18	19	20	21	22	23	24
23. LIT	0.33***	0.15***	-0.05**	0.04**	0.09***	0.18***	0.05**	0.14***	0.03	0.02	1.00	
24. TOTWORDS	0.13***	-0.08***	0.03	0.07***	0.02	0.01	-0.01	0.15***	-0.07***	-0.03	0.12***	1.00
25. GDP_G	-0.10***	-0.13***	-0.04*	-0.11***	-0.01	0.00	0.03	-0.06***	0.05**	0.04**	-0.08***	-0.03*

Notes: ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels respectively, two-tailed. All variables are defined in the Appendix.

Table 6 Impact of foreignness, home-country enforcement, and accounting distance from U.S. GAAP on the negativity tone of regulatory language

	(1)	(2)	(3)
Sample employed:	Full sample	Foreign sample	
Dependent variable:	CW_NEG	CW_NEG	CW_NEG
FOREIGN	0.245***		
	(6.98)		
RoL		1.324***	
		(3.74)	
GAAP_DIST			0.107***
			(3.75)
SMALLNI	-0.019	-0.036	-0.084
	(-0.32)	(-0.18)	(-0.44)
MATWEAK	-0.053	-0.019	0.011
	(-0.82)	(-0.12)	(0.07)
RESTAT	-0.020	-0.033	-0.020
	(-0.48)	(-0.28)	(-0.17)
GC	0.051	0.048	0.071
	(0.52)	(0.15)	(0.23)
BIG4	0.039	-0.061	-0.074
	(0.62)	(-0.16)	(-0.19)
AUTENURE	-0.007	-0.127	-0.134
	(-0.34)	(-1.39)	(-1.37)
AUDISMISSED	-0.061	-0.205	-0.237
	(-1.02)	(-1.09)	(-1.24)
AURESIGNED	0.242*	0.210	0.195
	(1.92)	(0.67)	(0.62)
SIZE	-0.007	-0.236*	-0.227*
	(-0.61)	(-1.90)	(-1.80)
LNAGE	0.047*	0.280	0.311
	(1.68)	(0.63)	(0.70)
LOSS	-0.098**	-0.149	-0.167
	(-2.47)	(-1.30)	(-1.40)
BTM	0.006	0.038	0.028
	(0.23)	(0.43)	(0.31)
ZSCORE	-0.010	0.036	0.039
	(-1.22)	(0.73)	(0.76)
AAER	-0.144	-0.197	-0.228
	(-1.42)	(-0.98)	(-1.13)
ROA	-0.000	-0.000	-0.000
	(-0.24)	(-0.13)	(-0.11)
LEV	0.099	-0.369	-0.371
	(0.98)	(-0.92)	(-0.92)
OPSEG	0.002	-0.066	-0.057
	(0.05)	(-0.64)	(-0.54)
MERGER	-0.101	0.179	0.228
	(-1.39)	(0.86)	(1.05)
LIT	0.073	0.105	0.100
	(1.52)	(0.75)	(0.72)
TOTWORDS	-0.259***	-0.190***	-0.189***
	(-6.48)	(-5.04)	(-4.96)
GDP_G	-0.017	-0.016	-0.007
	(-1.59)	(-0.67)	(-0.29)
Constant	2.695***	-0.654	1.306*
	(4.52)	(-1.14)	(1.87)
Year FEs	Yes	Yes	Yes
Industry FEs	Yes	Yes	Yes
Firm FEs	Yes	Yes	Yes
N	2,290	1,145	1,115
adj. R^2	20.25%	17.29%	18.85%
R^2	63.87%	52.36%	53.38%
VIF	1.41	1.48	1.47

Notes: This table presents the impact of foreignness (Column 1), home-country enforcement environment (Column 2), and different accounting standards (Column 3) on the negativity tone of regulatory language (CW_NEG, dependent variable). In Column 1 we report results using the entire sample (comprising of both U.S. and foreign firms), while in Columns 2 and

3 we limit our sample to the 455 foreign firms cross-listed in the United States. ***, ** and * indicate significance at the 0.01, 0.05 and 0.10 levels respectively, two-tailed. The regression uses robust standard errors clustered by firm. Variables are defined in the Appendix.