The Effects of a U.S. Approach to Enforcement: Evidence from China*

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Abstract

We examine the effects of implementing a U.S. approach to the enforcement of mandatory disclosure in China. Using a hand-collected sample of comment letters (CLs) issued by the Shanghai Stock Exchange over the period 2013-2018, we show that price reactions to CL receipts and replies are negative and significant. Using textual analysis to match issues raised by regulators to targeted firms' changes in disclosure, we show that these firms do address CL issues point by point, but do not experience significant improvements in their information environments. Our paper highlights the importance of incentives rather than regulation/enforcement in reducing information asymmetry.

***Keywords*:** enforcement, disclosure, comment letter, capital-market effects, relational contracting, political incentive, textual analysis

JEL classification: G14, G15, G34, G38

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Abstract

We examine the effects of implementing a U.S. approach to the enforcement of mandatory disclosure in China. Using a hand-collected sample of comment letters (CLs) issued by the Shanghai Stock Exchange over the period 2013-2018, we show that price reactions to CL receipts and replies are negative and significant. Using textual analysis to match issues raised by regulators to targeted firms' changes in disclosure, we show that these firms do address CL issues point by point, but do not experience significant improvements in their information environments. Our paper highlights the importance of incentives rather than regulation/enforcement in reducing information asymmetry.

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I. Introduction

Stock markets are crucial to advancing a nation's economy (Rajan and Zingales 1998). Not surprisingly, less developed markets replicate regulation from their counterparts in more developed countries, in efforts to expedite a move toward well-functioning markets. In a seminal paper, Ball, Robin, and Wu (2003) point out that the focus on regulation is "substantially and misleadingly incomplete," because a financial reporting practice under a given set of regulations is sensitive to the incentives of firms that prepare financial statements (see, for example, Ball, Robin, and Wu 2000; DeFond, Wong, and Li 2000; Chaney, Faccio, and Parsley 2011; Piotroski, Wong, and Zhang 2015). With enforcement playing a role even more important than that of regulation (Bhattacharya and Daouk 2002; Christensen, Hail, and Leuz 2013, 2016), regulators in developing countries have attempted to adopt enforcement measures from developed countries, but the outcomes of such strategies have received scant attention in the literature. In this paper, we fill this void by using the comment letter (CL) review process as an example of a U.S. approach to the enforcement of mandatory disclosure—first introduced in China in 2013—to shed light on the roles of firms' reporting incentives and regulators' enforcement incentives in achieving market-oriented financial reporting practices in China.

The U.S. CL process has two regulatory objectives: (i) to make investors aware of inquiries related to issuers' disclosure deficiencies, and (ii) to enhance issuers' compliance with disclosure requirements (Securities and Exchange Commission (SEC) 2018). The process unfolds as follows. Regulators review the financial statements of publicly listed firms to ensure the statements are in compliance with applicable financial reporting requirements; if there are any questions or concerns, a CL is issued and firm replies are required. Prior studies find that the U.S. CL review process is effective in improving targeted firms' disclosures and their

information environments (e.g., Johnston and Petacchi 2017; Lowry, Michaely, and Volkova 2020). However, whether similar outcomes can be achieved in developing countries is unclear.

China launched a U.S.-style CL process in 2013 as a key component of the 2014 reform of regulatory oversight with a focus on disclosure quality and standards.[1] In the absence of a culture of class action lawsuits or other market mechanisms in China (e.g., Layton 2008), the China Securities Regulatory Commission (CSRC) and two stock exchanges are the last lines of defense in policing mandatory disclosure, and have worked hard to compensate for the lack of market discipline (Chen, Firth, Gao, and Rui 2005; Hung, Wong, and Zhang 2015). With that institutional backdrop, we set our null market efficiency hypothesis, based on outcomes documented in the U.S., where the CL process works well. Therefore, if regulators are effective at identifying disclosure deficiencies that had eluded investors (Chen et al. 2005; Jackson and Roe 2009) and firms comply by improving their disclosures, then there should be a non-negative price reaction to the announcement of CLs that reflects the benefits of improvements in disclosures. Moreover, if regulators do not ask frivolous questions and targeted firms do not take CLs lightly, we would expect a non-negative price reaction to CL replies, further validating the gravity of those firms' disclosure deficiencies and signaling some improvement in targeted firms' future disclosures.

The outcomes of the CL process have been extensively studied in the U.S. Prior literature documents significant improvements in CL-related disclosure after a review, and a drop in bid-ask spreads after its resolution (see, for example, Johnston and Petacchi 2017; Lowry et al. 2020). Therefore, under the market efficiency hypothesis, we expect the CL process in China to

[1] The reform took place in early 2014 (see Appendix A for additional information); it was first applied to annual reports by Chinese firms in the fiscal year 2013.

result in non-negative price reactions to CLs (CL replies), significant increases in targeted firms' CL-related disclosures, and significant improvements in their information environments.

That said, replicating regulation and/or enforcement from advanced economies gives rise to the risk of implementing a regulation that will be incongruent with the local contracting environment. A major difference between developing economies, such as China's, and developed economies/capital markets is that the contracting environment in the former is relationship-based rather than market-based. In China business operations are often carried out within firms' social and political networks, which affects the benefits and costs of corporate transparency, and also the relevance and usefulness of accounting information for investment and financing decisions (Piotroski and Wong 2012). In such an environment, targeted firms will have strong incentives to minimize the effects of the CL process as opposed to focusing on improving disclosures. Therefore, when CLs expose targeted firms' deficiencies, i.e., when investors realize CL-triggered new disclosures are incomplete, there will be widening information asymmetry. Under the incongruency hypothesis, we expect negative price reactions to CLs (CL replies) in expectation of compliance in form, significant increases in targeted firms' CL-related disclosures, and significant deteriorations in their information environments.

To better understand the mechanisms through which the CL process in China fails to achieve its efficacy, we explore the roles of firms' reporting incentives and regulators' enforcement incentives in the outcomes of the review process. We expect that as a firm's share of relationship-based transactions increases and/or as regulators become more worried about stock market volatility and maintaining social stability, the negative outcomes due to the incongruency of such enforcement in China will be exacerbated.

Using a hand-collected data set on CLs and replies in China over the period 2013-2018, we first examine the determinants of Chinese firms receiving CLs. Based on a sample of 973 CLs on annual reports issued by the Shanghai Stock Exchange to 590 listed firms, we find that firms with weak internal control, a small positive earnings per share (EPS) increase, a modified audit opinion, and auditor turnover are more likely to receive CLs, as are firms that are older, loss-making, doing large acquisition deals, engaged in related party transactions, and providing loan guarantees to related parties. In contrast, firms hiring a Big 4 auditor, firms with high management ownership, state-owned enterprises (SOEs), and firms headquartered in provinces with better institutional development are less likely to receive them. These findings suggest that CLs in China are employed by regulators to identify firms unlikely to meet disclosure standards.

To examine CLs' effects, we take a multi-pronged approach. We show that the average five-day announcement period returns around CL receipts and CL replies are -2.5% and -0.7%, respectively, and are statistically different from zero. In terms of economic significance, given that the average market capitalization of firms receiving CLs is CNY9.4 billion ($1.5 billion), the average drop in market capitalization upon CL receipts (replying CLs) is CNY234.7 million ($38.5 million) (CNY65.9 million ($10.8 million)), which is economically significant. These findings affirm significant investor attention to enforcement actions as well as the market's expectation of no material improvements in future disclosures.

To further explore the outcome on corporate disclosure, we employ a set of textual analysis techniques based on machine learning to identify issues raised by regulators. Our analysis uncovers nine distinct issues raised by the SSE, largely overlapping with those in a similar U.S. process (e.g., Cassell, Dreher, and Myers 2013), suggesting that Chinese regulators are asking relevant questions. We then use KL-divergence (Kullback and Leibler 1951) to match

the issues raised by regulators with those in annual reports to help identify CL-triggered changes in subsequent disclosures. We find positive and significant associations between six out of the nine issues on which the SSE has expressed concerns and targeted firms' increased disclosures in amended annual reports. We further find positive and significant associations between three out of the nine issues on which the SSE has expressed concerns and targeted firms' increased disclosures in next-year's annual reports. Collectively, these findings provide suggestive evidence that targeted firms provide CL-related new disclosures.

We next investigate whether targeted firms' new disclosures translate into greater liquidity, which is the ultimate objective of securities law and enforcement (e.g., Christensen et al. 2013, 2016). We find no significant improvement in the bid-ask spread for a sample of targeted firms that made major changes in disclosures after receiving a CL. In contrast, we find a significant increase in the bid-ask spread for a sample of targeted firms that made small changes in disclosures, compared to a sample of non-CL firm-year observations. We further examine whether there are any differential effects across CL recipients with different levels of relational contracting and/or when regulators face different levels of political incentives. We find that *ceteris paribus*, price reactions to CLs (CL replies) are more negative, changes in targeted firms' disclosure are smaller, and their bid-ask spreads widen when relational contracting is more dominant for targeted firms and/or the political incentive is stronger for regulators. We conclude that the incentives of both firms and regulators are important in achieving market-oriented disclosure practices in developing economies.

Our paper makes a number of contributions to the literature. First, our key finding of the lack of significant improvements in firms' information environments of securities law enforcement in developing economies questions the regulatory objectives in those economies. As

a result, our paper and its novel finding complement and extend the prior literature highlighting the role of the incentives of firms that prepare financial statements in achieving transparency (DeFond et al. 2000; Ball et al. 2000, 2003; He et al. 2012). We point out that the incentives of both firms and regulators are important in helping to achieve market-oriented disclosure practices in developing economies.

Second, our paper is the first in the literature to examine the determinants and consequences of the CL review process using textual data from countries other than the U.S. (Lowry et al. 2020; Ryans 2021). The combination of Latent Dirichlet Allocation (LDA) analysis (Blei, Ng, and Jordan 2003) and KL-divergence allows us to clearly delineate the disclosure outcome by linking changes in amended and next-year's annual reports to issues raised by regulators in the CL process. More importantly, we offer a cautionary tale about textual analysis in China where relational contracting and political incentives are prevalent – the textual analysis as adopted in the U.S. fails to differentiate compliance in form from compliance in substance (whereas the capital market outcomes in terms of targeted firms' price reactions and bid-ask spreads do).

Third and finally, by using China as a setting for gaining insights into the effects of implementing a U.S. approach to the enforcement of mandatory disclosure in developing economies, our paper contributes to the extensive literature examining the efficacy of public enforcement (Stigler 1964, 1971; Becker and Stigler 1974; Landes and Posner 1975; Shleifer 2005). Our finding on the negative price reactions to CL receipts and replies highlights the value of Chinese regulators' information production relative to investors. More importantly, our key finding of the lack of improvements in targeted firms' information environments is new to the literature and contributes to the on-going debate on the efficacy of public versus private

enforcement (e.g., La Porta, Lopez-de-Silanes, and Shleifer 2006; Jackson and Roe 2009; Del Guercio, Odders-White, and Ready 2017).

Our findings on the lack of effectiveness of the CL review process implemented in China should be of interest to other countries using or considering the adoption of a regulatory filing review process. We show that replicating regulation and/or enforcement from advanced economies is not enough to improve listed firms' information environments in developing economies, which are often relationship-based. The full efficacy of regulation and its enforcement requires better alignment with domestic environments.[2]

II. Institutional Backgrounds

A. CLs in the U.S.

The CL review process, as currently practiced, was introduced by the SEC as part of the Sarbanes-Oxley Act of 2002 (SOX), which was itself the agency's response to investors' demands for more enforcement. Section 408 of the Act requires that the SEC review, at least once every three years, disclosures of all companies reporting under the Securities Exchange Act of 1934.

The process starts with the SEC issuing a CL when it deems a filing to be materially deficient or when a filing requires further clarification. The issuer's response is required within ten days, and can potentially generate one or more follow-up letters from the SEC. Typical responses from the issuer include providing supplemental information requested by the CL,

[2] It is worth pointing out that on February 9, 2021, the CSRC announced disclosure rule change that requires better disclosure of ownership structure prior to listing, and imposes a longer lock-up period for large shareholders than what were required before, consistent with our paper's findings and policy recommendation of more disclosure on relational contracting.

making amendments to current filings, making additional disclosures in future filings, and, in rare cases only, making a restatement of the reviewed filings (Cassell et al. 2013).

B. CLs in China

The regulatory framework in China largely replicates that of the U.S., with the same goals of maintaining a transparent, fair, and equitable market, strengthening the protection of investors, small investors in particular, and facilitating the sound development of the capital market.[3] The securities regulators, including the CSRC and two domestic stock exchanges—the Shanghai Stock Exchange (SSE) and the Shenzhen Stock Exchange (SZSE)—have played a direct and prominent role in developing China's stock markets. One of the enforcement roles of the two exchanges (subordinates to the CSRC) is to review corporate filings (annual and semi-annual reports) to ensure compliance, and to report their findings to the CSRC.

Appendix A provides a comparison of key institutional features of the CL review process in China versus that in the U.S. It is clear that regulators in the U.S. and China follow a very similar enforcement process.

III. Literature Review and Hypothesis Development

A. Prior literature on adopting Anglo-American accounting standards in developing economies

In a seminal paper, Ball et al. (2003) examine the interaction between accounting standards and firms' incentives on financial reporting quality in Hong Kong, Malaysia, Singapore, and Thailand whose respective accounting standards all derive from common law sources (from the UK and the U.S.) widely viewed as higher in quality than code law standards.

[3] See the mission statement at the China Securities Regulatory Commission's website: http://www.csrc.gov.cn/pub/csrc_en/ (accessed 7/6/2021).

They find that the financial reporting quality in those four East Asian regions is not higher than under code law, as measured by the timely recognition of economic income (particularly losses). They further show that the prevalence of family control and relational contracting (instead of arm's length contracting) results in opacity. They conclude that firms' reporting incentives are more important than standards to achieve transparency.

In a move to improve both auditing and accounting quality in the Chinese equity markets, the CSRC adopted the international Generally Accepted Auditing Standards (GAAS) in 1995. DeFond et al. (2000) find that the immediate effect of such adoption is that the modified audit opinions go up by ninefold, but firms start to hire non-Big 10 auditors who are less stringent. The authors conclude that relying on social and political networks rather than arm's length contracts weakens the contracting role of accounting and listed firms' demand for high-quality auditing, especially for SOEs.

He et al. (2012) study the unintended consequence of China's 2007 adoption of the International Financial Reporting Standards-based (IFRS-based) new China Accounting Standards (CAS). The authors find that listed firms use fair value accounting to manipulate earnings to meet the CSRC's regulatory thresholds. They conclude that regulators' use of bright line rules of accounting targets creates strong incentives for firms to manage earnings to maintain their listing status, as opposed to creating incentives to provide investors with transparent information.

Piotroski et al. (2015) highlight the fact that political incentives shape the Chinese listed firms' information environments. They examine the stock price behavior of listed firms around major political events, and find that those events temporarily restricted the flow of negative information about affiliated firms. They conclude that both politicians and their affiliated firms

respond to political incentives by suppressing negative information in a country with government control over its capital markets.

It is worth noting that there is little evidence on the outcome of adopting U.S.-style enforcement in China, or on Chinese regulators' incentives behind enforcement actions. Our paper fills this void by examining the roles of both regulators' enforcement incentives and firms' reporting incentives in the enforcement outcomes.

B. Hypothesis development

Our null hypothesis, the market efficiency hypothesis, is based on the conjecture that the CL process in China will reach similar outcomes as in the U.S. Therefore, its predictions are largely motivated by the documented evidence of the CL process in the U.S. The reasoning for expecting similar outcomes in China is based on the following observations. The review process is a key component of the 2014 reform of the regulatory oversight of mandatory disclosure; this reform focused on disclosure quality and standards far more explicit than previous regulatory efforts. Moreover, in the absence of a culture of class action lawsuits or other market mechanisms in China (e.g., Layton 2008), the CSRC and two stock exchanges are the last line of defense in policing mandatory disclosure, and have the potential to compensate for the lack of market discipline. Prior work concludes that the CSRC is not a toothless tiger in China's legal and institutional environments (Chen et al. 2005; Hung et al. 2015). Therefore, we expect the CL process to be implemented with full efficacy in China.

The price reaction to CL announcements captures two effects: the identification and severity of possible disclosure deficiencies, and the potential for improvements in future disclosures. Dechow, Lawrence, and Ryans (2016) document that in the U.S., the price response to CL conversations (reviews together with resolutions) relating to annual reports is, on average,

slightly positive, whereas Ryans (2021), using a longer time period, reports no market reaction to CL conversations. In China, even though CLs are released before their replies, under the market efficiency hypothesis, we expect that investors will anticipate full resolution of disclosure deficiencies, similar to the U.S. experience, and that prices will incorporate improvements in future disclosures.

In line with the above reasoning, prior literature has documented that the U.S. CL process leads to improvements in disclosures, and a subsequent drop in bid-ask spreads (see, for example, Johnston and Petacchi 2017; Lowry et al. 2020). Given that the CL process in China is implemented much as it is in the U.S., we expect the additional information generated from the CL process will help improve targeted firms' information environments. Our null market efficiency hypothesis has the following set of predictions:

H1a: There is a non-negative reaction to Chinese CLs (CL replies).

H1b: There is a significant increase in targeted firms' CL-related disclosures.

H1c: There is a significant improvement in targeted firms' information environments.

That said, replicating regulation and/or enforcement from advanced economies gives rise to the risk of implementing a regulation that is incongruent with the local contracting environment. In this paper, we propose an alternative hypothesis to the null – the incongruency hypothesis based on the following arguments.

A major difference between developing economies, such as China, and developed economies/capital markets is that the contracting environment in the former is relationship-based rather than market-based. In China business operations are often carried out within firms' social and political networks, which affects the benefits and costs of corporate transparency, and also the relevance and usefulness of accounting information for investment and financing decisions

(Piotroski and Wong 2012; Wong 2014). Given that information asymmetry in China is resolved largely by private communications among contracting parties, not via public disclosures (Ball et al. 2000), targeted firms will have strong incentives to minimize the effects of the CL process as opposed to focusing on improving disclosures.[4] In some sense, the CL process in China can be compared to bright line rules adopted by the CSRC (He et al. 2012) whereby due to the lack of manpower and high information costs, Chinese regulators make heavy use of (explicit) accounting targets when approving listed firms' investment and financing decisions. Prior work shows that such rules lead to acute earnings manipulations among listed firms in China (Piotroski and Wong 2012; Wong 2014). Similarly, to satisfy the regulator, targeted firms could incur relatively low information costs when addressing those comments point-by-point without providing proprietary, largely soft information in its entirety.[5] As a result, the Chinese CL process may lead to partial disclosure of soft, non-verifiable information that alarms investors about the lack of transparency, exacerbating information asymmetry about targeted firms.

We next discuss the implications of the incongruency between the CL process and the local contracting environment for each of our predictions.

[4] Our conversations with a number of directors on the boards of listed firms in China suggest that targeted firms share one main goal—in the words of one director, "making the comment letter go away"—as opposed to working on improving their firms' disclosures to capital market participants. In contrast, in the U.S. the SEC describes the CL process as a conversation with targeted firms intended to help such firms improve disclosures (and/or comply with standards, Cassell et al. 2013). Appendix IA1 in the Internet Appendix provides an example of Chinese CLs and replies. We note that both regulators' inquiries and firms' responses regarding related-party transactions tend to be terse, and hence are not helpful in capturing the nature and scope of underlying business relationships.

[5] In addition to Chinese firms' very different contracting environments compared to those of U.S. firms, there is one implementation difference between the Chinese CL process and its U.S. counterpart that may further prevent the former from achieving its full potential: the Chinese CL process is restricted to one round (i.e., the regulator sends only one letter, and a targeted firm provides only one response). This implementation difference is consistent with Chinese regulators being aware of, and sympathetic to, firms' incentives to partially withhold strategic information. This difference suggests that Chinese regulators balance the benefits of fostering the informational role of accounting disclosures against the costs associated with causing disruption to firms' business operations due to revealing proprietary information in the CL process.

The price reactions to CLs and CL replies depend on the issues identified by the regulator and on the expected resolution. If Chinese regulators identify disclosure deficiencies that had eluded investors (Chen et al. 2005; Jackson and Roe 2009), and the resolution is expected to be partial, then a negative price reaction will follow the announcement of CLs. Moreover, given that targeted firms' incentives are to withhold soft, non-verifiable information and that the review process does not require the regulator to attest the resolution of the deficiency, we expect a significantly negative price reaction to CL replies.

With respect to changes in corporate disclosure, as discussed above, we expect targeted firms to provide some additional disclosure relating to CL topics. However, the CL-triggered disclosures are only a partial resolution of the deficiencies, which gives rise to worsening information asymmetry about targeted firms as investors learn that some important information is missing from disclosures. Furthermore, processing the incomplete disclosure of relationship-based transactions requires a deep understanding of the contracting environment, which just a fraction of market participants possess (Li, Wong, and Yu 2020). As a result, CL-triggered disclosure may increase investors information-processing costs and accentuate their degrees of information asymmetry about targeted firms.

Based on the above discussions, our incongruency hypothesis has the following set of predictions:

H2a: There is a significantly negative price reaction to Chinese CLs (CL replies).

H2b: There is a significant increase in targeted firms' CL-related disclosures.

H2c: There is significant deterioration in targeted firms' information environments with incomplete disclosure.

We next zoom in on the roles of firms' and regulators' incentives in the outcomes of the CL process in China under the incongruency hypothesis. We argue that as the share of relationship-based transactions increases, the detrimental effect of mandated disclosures aggravates, because of the increase in information asymmetry about targeted firms.

Moreover, there are strong political incentives to suppress bad news in the Chinese economy (see, for example, Piotroski et al. 2015), and political costs associated with reporting/uncovering embarrassingly large profits or losses (Ball et al. 2000; Piotroski and Wong 2012). We therefore expect that during volatile market periods when social stability becomes paramount, regulators will be more lenient, and targeted firms, more reluctant to release additional information. The combination of regulators' political incentives in enforcement and targeted firms' incentives to provide minimal responses may accentuate information asymmetry.

Based on the above discussions, we have the following predictions under the incongruency hypothesis when varying targeted firms' levels of relational contracting and regulators' political incentives:

H3a: The negative price reaction to Chinese CLs (CL replies) is increasing in measures of targeted firms' relational contracting and/or regulators' political incentives.

H3b: The increase in targeted firms' CL-related disclosures is decreasing in measures of targeted firms' relational contracting and/or regulators' political incentives.

H3c: The deterioration in targeted firms' information environments with incomplete disclosure is increasing in targeted firms' relational contracting and/or regulators' political incentives.

IV. Sample Formation and Overview

Disclosure of CLs and their replies has improved over time. In 2015, the SSE required listed firms to disclose the content of CLs related to annual reports for the fiscal year 2014 (all

Chinese firms' fiscal years end on December 31). Since 2016, the SSE has disclosed a subset of CLs on its website.

We take a two-pronged approach to form our sample: (1) we download CLs covering the fiscal years 2015 to 2018 from the SSE's website, and supplement them with further search on the websites of Shanghai Securities News (www.cnstock.com) and Securities Times (www.stcn.com) – the official sources of corporate news; and (2) we download all corporate announcements over the period from January 1, 2014 to July 19, 2019 from the above two websites, and conduct keyword searches for CLs and/or their replies covering the fiscal years 2013 to 2018.[6]

Table 1 Panel A provides an overview of CLs used in our analysis together with different data sources.[7] The last row of Table 1 Panel A shows that the average frequency of firms receiving comment letters each year is about 14 percent. Overall, our sample consists of 973 CLs issued to 590 unique firms: 343 firms receive only one CL, 150 firms receive two CLs in different fiscal years, and 97 firms receive three or more CLs in different fiscal years.[8] Panel B

[6] There are 779,593 announcements over the period. We first impose the filter that the title of an announcement must contain the word "annual report" (年报 or 年度报告), resulting in 31,990 announcements. We then read each title of an announcement to determine whether a CL or a reply was issued. In some cases where we cannot locate the actual CL, we can still determine that a CL was issued based on the announcement of a reply. In those cases, we can often capture the content of a CL from its reply, as firms typically list the SSE's questions from the letter before responding. Finally, we also read the opening paragraph of the "supplemental announcement related to a firm's annual report" (年报补充公告) to determine that a CL was issued if the beginning of the announcement says, "This supplemental announcement is made in response of [*sic*] receiving a comment letter…."

[7] To ensure that we capture most of the CLs issued by the SSE, we read press releases by the CSRC and the SSE upon the completion of annual report reviews, and note that the numbers reported in those releases are fairly comparable to those reported in column (5) in Table 1 Panel A. When we repeat the same process to construct a sample of CLs for firms listed on the SZSE, and cross check our numbers with the exchange's press releases, we realize that we are unable to capture most of the CLs issued by the SZSE, which is the main reason for us choosing to study CLs issued by the SSE in this paper.

[8] In contrast to CLs and replies from the U.S., rarely do we see multiple iterations of letters and replies. Over our sample period 2013-2018 (in fiscal years), only nine firms receive follow-up letters: two firms in 2013, none in 2014, two firms in 2015, two firms in 2016, three firms in 2017, and five firms in 2018.

presents the summary statistics of key characteristics of Chinese CLs. We show that the mean (median) number of pages of CLs is 5 (5). The mean (median) number of questions is 11 (10).[9]

For firm characteristics, we obtain data from various sources including the GuoTaiAn's (GTA) China Stock Market & Accounting Research (CSMAR) database, the Thomson One Banker SDC database, the WIND database, and the DiBo (DIB) database, as well as our own data collection from firms' annual reports. Detailed variable definitions and data sources are provided in Appendix B.

Table 2 Panel A presents summary statistics for the sample used to examine the determinants of CL receipts and CL characteristics. Panel B presents the correlation matrix of the variables. The correlation matrix suggests little concern about multicollinearity. Given that the omitted variable bias in univariate correlations can mask the true relations between the variables, we employ multiple regressions to examine the factors associated with firms receiving CLs.

V. Determinants of CL Receipts and Characteristics

To examine the determinants of CL receipts and CL characteristics, we estimate the following model:

$$CL/CL\ characteristic_{it} = \beta_0 + \beta_1 Section408Criteria_{it} + \beta_2 FirmCharacteristics_{it} + \beta_3 MarketizationIndex_{it} + Industry/Year\ FE + \varepsilon_{it}, \quad (1)$$

[9] The difference in sample size between these two variables in Panel B is due to the fact that for 204 observations, we have only replies from which we can ascertain the questions raised in the letter, but not its length in number of pages. The difference in sample size between 973 observations with information on CL receipts in Panel A and 929 observations with information on number of questions in a letter in Panel B is due to the fact that for 44 observations, the receipt of a letter is identified from supplemental announcements without the actual letter nor its reply.

where the dependent variables are: *CL*, an indicator variable that takes the value of one if a firm receives an annual report CL in fiscal year *t*, and zero otherwise, and the number of pages of each CL and the number of questions raised in each. Table 3 presents the results.

Column (1) employs the logistic regression specification when the dependent variable is the indicator variable *CL.* In terms of Section 408 Criteria (in the U.S.), we show that internal control weakness is positively and significantly associated with the likelihood of a firm receiving a CL. Using small positive changes in EPS (Burgstahler and Dichev 1997) as a proxy for earnings management, we find a positive association between earnings management and the likelihood of a firm receiving a CL. In terms of auditor characteristics, we show that the presence of a modified audit opinion and auditor turnover are positively and significantly associated with, whereas the presence of a Big 4 auditor is negatively and significantly associated with, the likelihood of a firm receiving a CL. Chen et al. (2016) show that modified audit opinions impose significant regulatory costs on Chinese companies receiving such opinions, such as an end to seasoned equity offerings and delistings. Our findings are consistent with the idea that regulators would be seriously concerned and follow up with a CL if they saw a modified audit opinion.

In terms of corporate governance characteristics, we first show that firms with higher management ownership are negatively and significantly associated with the likelihood of those firms receiving CLs. We note that institutional ownership is not significantly associated with the likelihood of a firm receiving a CL. Prior work finds that institutional ownership in China in general is quite low compared to that in the U.S. (also see Table 2 Panel A) and most institutional investors are compromised with the exceptions of qualified foreign institutional investors (QFII) (Li, Wang, Cheung, and Jiang 2011; Huang and Zhu 2015).[10] Our finding on

[10] In Table IA1 in the Internet Appendix, we find a negative and significant association between QFII/mutual fund (MF) ownership and the likelihood of a firm being in receipt of a CL (the severity of a CL). Given that the mean

institutional ownership is consistent with this observation. We further show that SOEs, known to have different reporting incentives from non-SOEs (Wang, Wong, and Xia 2008; Jian and Wong 2010), are less likely to receive CLs.

In terms of other firm controls, older firms proxying for the complexity of a firm's operations and loss-making firms are more likely to receive CLs. We further show that firms doing major M&As and firms engaged in related party transactions and/or providing loan guarantees to related parties are more likely to receive CLs. Finally, we show that firms headquartered in provinces with well-developed market-oriented institutions are less likely to receive CLs.[11]

Columns (2) and (3) present the Poisson regression results when the dependent variables are two measures of CL severity. We show that most variables that explain the likelihood of receiving a CL also explain the severity of the content in such letters.

In summary, the evidence in Table 3 suggests that Chinese regulators are targeting a set of firms in the CL review process similar to those investigated by their U.S. counterpart.

VI. Price Reactions to CL Receipts and Replies

The regulatory objective of the CL process is two-fold: 1) to alert investors about issuers' disclosure deficiencies; and 2) to improve disclosure going forward. In this section, we examine price reactions to announcements of firms receiving CLs and issuing replies as direct measures

(median) QFII/MF ownership is 0.026 (0.010) in our sample, it is not surprising that it has no significant effect on any other outcomes examined later in the paper (untabulated).

[11] The marketization index compiled by Wang, Fan, and Hu (2019) captures the differences in institutional development across provinces based on a number of metrics, such as the relationship between the government and the market, the development of the private sector, and the quality of the legal environment.

of investor attention (to disclosure deficiencies) and the market's expected improvements in targeted firms' disclosures.

CAR(-2, +2)_ann (*CAR(-2, +2)_reply*) is the five-day cumulative abnormal return from two days before to two day after the CL announcement (reply) day (day 0). Daily abnormal return is the difference between daily return and the value-weighted market return on the SSE.[12] Table 4 Panel A presents the basic statistics. We show that the average price reaction to CL receipts is -2.5%, and is statistically different from zero, supporting *H2a* – the incongruency hypothesis.[13, 14] In terms of economic significance, given that the average market capitalization of firms receiving CLs is CNY9.4 billion ($1.5 billion), the average drop in market capitalization is CNY234.7 million ($38.5 million), which is economically significant. We also show that the average price reaction to CL replies is -0.7%, and is statistically different from zero.[15] In terms of economic significance, the average drop in market capitalization is CNY65.9 million ($10.8 million), which is economically significant. Clearly, there is significant investor attention to the CL process as an enforcement action, and the significantly negative price reactions are consistent with regulators' ability to identify relevant deficiencies, and the market's expectation of no material improvements in targeted firms' future disclosure.

Panel B presents the OLS regression results relating different measures of CL (CL reply) severity to *CAR (-2, +2)_ann* (*CAR (-2, +2)_reply*). We show that both measures of CL severity,

[12] In Table IA2 in the Internet Appendix, we employ the market model, estimated over 122 trading days ending prior to the event window, to compute daily abnormal returns over the five-day event window. Our main findings remain.
[13] In Table IA3 Panel A in the Internet Appendix, we further show no further price drop beyond two days after a firm's receipt of a CL, and more importantly, we show that CLs are largely unexpected, with a significant negative price drop starting only two days before their receipt. In private conversations with SSE officials, we learned that the SSE sometimes asks targeted firms clarifying questions before issuing a CL, which explains the negative price drop preceding its receipt.
[14] In Table IA3 Panel B, we find a significant difference between the price reaction to the first letter and that to subsequent letter(s) (p-value for the t-test of difference is 0.001, and for the Wilcoxon test is 0.006).
[15] *CAR (-2, +2)_reply* combines the market reaction to the reply and to CL-triggered amendments (if called for), as the median (mean) number of trading days between amended annual reports and CL replies is 0 (0.53 days).

the number of pages and the number of questions, are negatively and significantly associated with *CAR (-2, +2)_ann,* suggesting that investors perceive more severe letters as significantly more negative news, i.e., more deficient disclosures combined with no expectations of future improvements. We further show that the length of a CL reply is negatively and significantly associated with *CAR (-2, +2)_reply*, suggesting that longer replies are associated with investors being aware of more deficient disclosures as well as insufficient improvements in disclosure from the CL process.

In summary, Table 4 provides evidence consistent with *H2a*, the incongruency hypothesis, that although investors pay attention to enforcement actions in which regulators are asking relevant questions, they expect no material improvement in targeted firms' future disclosures.

VII. Changes in Targeted Firms' Information Environments

A. Changes in CL-related disclosures: amended and next-year's annual reports

CLs identify parts of an annual report that would benefit from further clarification; targeted firms are then required to provide a reply addressing each point raised. When issues raised by regulators are material and could potentially impact capital allocation, targeted firms may amend the original annual report with some new content, and/or adopt better disclosure practices in future reporting. In this section, we examine the regulatory outcome on corporate disclosure by relating CL receipts to content in amended and next-year's annual reports using textual analysis.

1. Textual analysis of issues raised by the SSE

To determine the number and content of issues raised by the SSE, we employ LDA analysis following Lowry et al. (2020) and Ryans (2021), one of the most popular topic modelling techniques.[16] Figure 1 presents the flow chart of our textual analysis approach and Appendix IA2 in the Internet Appendix provides a detailed description.

Table 5 Panel A presents the mean/median fraction/number of words for each CL reply (CLR) topic. Figure 2 depicts the word clouds for the nine topics. We note that eight of those nine topics (with the exception of CLR topic 5—risk factors – competition and competitors) overlap with those listed as the top 25 most frequent topics of U.S. CLs (e.g., Cassell et al. 2013), suggesting that disclosure issues raised by the SEC are also deemed important by the SSE.

2. Textual analysis of changes in disclosure: amended annual reports

To examine the disclosure outcome of the CL process, we regress the fraction change in words on an annual report topic between the original and amended reports that is closest to the CLR topic on the fraction of words on the same CLR topic. Table 5 Panel B presents the OLS regression results.

We show that for six out of the nine CLR topics, the extent of the issue raised by the SSE is positively and significantly associated with targeted firms' new disclosures in amended annual reports.[17] Column (1) in Panel B shows that a one-percentage-point increase in the SSE's

[16] We apply LDA analysis to CL replies (instead of CLs) because these replies always contain regulators' questions in CLs and hence capture issues raised by regulators. By doing so, it increases the amount of textual data being analyzed, which is important for the performance of topic models.

[17] For two out of the nine CLR topics (accounts receivable and cash reporting issues, and PPE fixed assets issues), the extent of the topic on which the SSE had expressed concerns is positively, albeit not significantly, associated with the change in targeted firms' disclosures in amended annual reports. The only negative and significant association occurs with respect to CLR topic 3—pro-forma financial information reporting issues, which is not surprising to us for the following reason. Pro-forma earnings are a "beyond-GAAP" (Generally Accepted

attention to liquidity issues is associated with a one-percentage-point increase in the targeted firm's disclosure on this topic in its amended annual report. Economic magnitudes are similarly meaningful across most of the other five topics.[18]

We next examine whether the CL process is associated with targeted firms' disclosure practices going forward.

3. Textual analysis of changes in disclosure: next-year's annual reports

To further examine the disclosure outcome of the CL process, we regress the fraction change in words on an annual report topic between the original and next-year's reports that is closest to the CLR topic on the fraction of words on the same CLR topic. Table 5 Panel C presents the OLS regression results.

We show that for three out of the nine CLR topics, the extent of the issue raised by the SSE is positively and significantly associated with targeted firms' new disclosures in next year's annual reports.[19]

In summary, Table 5 provides supporting evidence for both *H1b* and *H2b*. We next examine the effect of the CL process on liquidity, which will help us differentiate between the market efficiency hypothesis that predicts targeted firms' new disclosures translate into

Accounting Principles) number based on estimates and the exclusion of items that management believes to be more informative than GAAP earnings. If regulators find pro-forma earnings misleading, targeted firms will be asked to remove them and related discussion and focus on GAAP earnings instead.

[18] Table IA4 Panel A in the Internet Appendix shows that the results are similar when we compare the SSE's attention to a CLR topic to targeted firms' changed disclosures in amended annual reports on the three most closely matched annual report topics. To validate our analysis, we employ a falsification test following Lowry et al. (2020). We relate the SSE's attention to a CLR topic to targeted firms' changed disclosures in amended annual reports on the three least closely matched annual report topics. Table IA4 Panel B presents the results. We find little evidence of a significant relation in this falsification test.

[19] Table IA4 Panel C in the Internet Appendix shows that the results are weaker when we compare the SSE's attention to a CLR topic to targeted firms' changed disclosures in next-year's annual reports on the three most closely matched annual report topics. Panel D presents the results from the same falsification test as those in Panel B. We find little evidence of a significant relation between the SSE's attention to a CLR topic to targeted firms' changed disclosures in next-year's annual reports on the three least closely matched annual report topics.

improvements in information environments and the incongruency hypothesis that predicts otherwise, given that CL-related disclosures are in form, but not in substance.

B. Changes in bid-ask spreads

The ultimate objective of the enforcement of disclosure standards is that compliant firms with better disclosures will be rewarded with price efficiency and greater liquidity. In this section, we examine whether the CL review process results in any improvement in targeted firms' information environments as proxied by *Bid-ask spread*.

We run the following OLS regression:

$$Bid\text{-}ask\ spread_{it} = \beta_0 + \beta_1 CL_{it-1} \times Major\ change\ in\ disclosure_{it} + \beta_2 CL_{it-1} \times (1 - Major\ change\ in\ disclosure_{it}) + \beta_3 FirmCharacteristics_{it-1} + \beta_3 MarketizationIndex_{it-1} + Firm\ FE + Year\ FE + \varepsilon_{it}. \quad (2)$$

Our variables of interest are the two interaction terms *CL × Major change in disclosure*, and *CL × (1 − Major change in disclosure).* The indicator variable, *Major change in disclosure*, takes the value of one if a targeted firm's changes in disclosure in next-year's annual report are in the top quartile across all targeted firms in the same year, and zero otherwise. The coefficient β_1 (β_2) captures the differential bid-ask spread of targeted firms that makes major (non-major) changes in disclosures in response to CLs, relative to a sample of non-CL firm-year observations. Following Bertrand and Mullainathan (2003), we include firm and year fixed effects, the former controlling for time-invariant differences between CL (treated) firms and non-CL (control) firm-year observations.

Table 6 presents the regression results. Across all specifications, the coefficient estimates suggest that in China, major changes in disclosures in response to CLs are associated with no change in targeted firms' information environments, whereas minor changes in disclosures are associated with worsening information environments, compared to a sample of non-CL firm-year

observations. As a comparison, in the U.S. where the CL process works well, the resolution of the process leads to a significant drop in the bid-ask spread of targeted firms (Johnston and Petacchi 2017). In China, although the CL process seems to identify firms with characteristics associated with potential poor information quality, it is limited in enforcing responses, given the incentives from drastically different contracting environments in which Chinese firms operate compared to those in the U.S. In fact, our findings suggest that the CL process does not fit well with the institutional environment in China because it requires firms to disclose soft information about relationship-based operations, which is costly to disclosing firms, and therefore lead them to disclose (just) enough to satisfy regulators' oversight, but not enough to resolve the deficiency in their disclosure. As a result, when CLs expose targeted firms' deficiencies, i.e., when targeted firms reveal partial information, as captured by *(1 – Major change in disclosure)*, these firms actually suffer from revealing incomplete soft information, which may lead market participants to ascribe less credibility to the financial reports of these firms. Even when CL-related disclosure changes are more comprehensive, as captured by the indicator variable *Major change in disclosure*, because only some market participants with firm-specific knowledge are capable of processing such information, the overall effect on information asymmetry is neutral (Piotroski and Wong 2012; Li et al. 2020).

Collectively, our findings in Tables 5-6 are consistent with the incongruency hypothesis, and do not support the market efficiency hypothesis. We conclude that both Chinese firms' reporting incentives in a relationship-based economy and Chinese regulators' enforcement incentives lead to a lack of capital-market effects of public enforcement.

VIII. The Roles of Firms' Reporting Incentives and Regulators' Enforcement Incentives[20]

To better understand the mechanisms through which the CL process in China fails to achieve its efficacy, we explore the roles of firms' reporting incentives and regulators' enforcement incentives in the outcomes of the review process.

Following Li et al. (2020), we introduce an indicator variable, *High relational contracting*, that takes the value of one if a firm's related-party transactions are more than 30% of its sales and/or if its government subsidies are larger than 5% of its assets, and zero otherwise. Motivated by Piotroski et al. (2015), who highlight social stability as paramount to the Chinese government, we introduce an indicator variable, *High political incentive*, that takes the value of one in years when the stock market experiences major volatilities and hence the regulators are incentivized to avoid causing further disruptions, and zero otherwise. Table 7 presents the results.

Panels A and B examine the role of firms' reporting incentives in the outcomes of the CL process. We sort sample firms into high versus low relational contracting subsamples and find that price reactions to CLs are significantly more negative in the high relational contracting subsample than those in the low relational contracting. Moreover, firms in the high relational contracting subsample experience a significant increase in bid-ask spreads when disclosure is incomplete, whereas their counterparts in low relational contracting subsample do not.

Panels C and D examine the role of regulators' enforcement incentives in the outcomes of the CL process. We sort sample firms into high versus low political incentive subsamples and find that price reactions to CLs are significantly lower in the high political incentive subsample than those in the low political incentive, suggesting that the market anticipates weaker

[20] We thank an anonymous referee for suggesting this analysis.

enforcements during volatile stock market periods. Moreover, we show that changes in CL-related disclosures by targeted firms in the high political incentive subsample are significantly smaller than those by targeted firms in the low political incentive subsample, echoing the earlier price reaction result. Finally, we show that targeted firms in the high political incentive subsample experience a significant increase in bid-ask spreads when disclosure is incomplete, whereas their counterparts in the low relational contracting subsample do not; however, the difference is not statistically significant.

Table IA5 in the Internet Appendix further shows that there are fewer repeated CLs during periods in which regulators' political incentives are heightened compared to those in which they are not. Moreover, we show that CL replies are significantly shorter in firm-years in which regulators' political incentives are high compared to firm-years in which regulators' political incentives are low (Panel B). We further show that the likelihood of CL-triggered restatement is significantly lower and CL replies are significantly shorter in firm-years with high relational contracting compared to firm-years with low relational contracting (Panel A).

Overall, the evidence in Table 7 provides support for our incongruency hypothesis that both firms' reporting incentives and regulators' enforcement incentives play significant roles in the outcomes of the CL process in China.

IX. Conclusions

Well-developed stock markets are crucial to advancing a nation's economy (Rajan and Zingales 1998). In this paper, we fill a void in the literature by using the CL review process—an example of a U.S. approach to the enforcement of mandatory disclosure—to shed light on the

roles of firms' reporting incentives and regulators' enforcement incentives in achieving market-oriented financial reporting practices in China.

Using a hand-collected sample of CLs on annual reports issued by the Shanghai Stock Exchange—our measure of enforcement—we first show that both the determinants of Chinese firms receiving a CL and the issues raised by Chinese regulators largely mirror those in the U.S. These findings suggest that the implementation of the Chinese CL process follows that of its U.S. counterpart. We then show that price reactions to CL receipts and replies are negative and significant, indicative of the value of regulators' information production relative to investors and the market's expectation of incomplete disclosure going forward.

Using textual analysis, we further show that for six out of the nine CLR topics, the extent of the issue raised by the SSE is positively associated with targeted firms' increased disclosures in amended annual reports from the CL year; for three, the extent of the issue raised by the SSE is positively associated with targeted firms' increased disclosures in next-year's annual reports, suggesting that targeted firms improve their CL-related disclosures. However, we show that CL receipts are not associated with any significant improvements in targeted firms' information environments, supporting the incongruency hypothesis that in a relationship-based economy, CL-triggered new information disclosure is incomplete.

We conclude that public enforcement of mandatory disclosure in China appears to alert investors regarding targeted firms' disclosure deficiencies; however, targeted firms do not benefit from incomplete CL-triggered disclosures in a relationship-based economy such as China's. Our novel evidence on enforcement in form but not in substance highlights that the incentives of both firms and regulators are important in achieving market-oriented disclosure practices in developing economies.

Appendix A. The institutional background for CLs in China versus in the U.S.

	China	U.S.
Regulatory body	China Securities Regulatory Commission (CSRC), Shanghai Stock Exchange (SSE), Shenzhen Stock Exchange (SZSE)	U.S. Securities and Exchange Commission (SEC)
Regulatory mandate	to maintain a transparent, fair, and equitable market, strengthen the protection of investors, small investors in particular, and facilitate the sound development of the capital market	to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation
Regulatory mandate specific to CLs	to strengthening the protection of minority shareholders	to enhance compliance with "the applicable disclosure and accounting requirements" On its website, the SEC (2018) describes the objective of CL reviews as follows: "Much of the Division's review involves evaluating the disclosure from a potential investor's perspective and asking questions that an investor might ask when reading the document. When the staff identifies instances when it believes a company can improve its disclosure or enhance its compliance with the applicable disclosure requirements, it provides the company with comments."
Staffing	The SSE assigns the review process to seven different industry groups. Each group has about ten professionals and each staff member is responsible to review about 25 companies. In addition, there is the annual report review support team that assist the industry groups to review the annual filings of public companies. (https://dedicated.wallstreetcn.com/qq/articles/3330880).	The DCF performs its primary review responsibilities through 11 offices/industry groups. The members of these 11 offices have specialized industry, accounting, and disclosure expertise. Generally, the Division has staffed the offices with 25 to 35 professionals, primarily accountants and lawyers. (https://www.sec.gov/divisions/corpfin/cffilingreview.htm).
Frequency of CLs	yearly, done by the two exchanges (SSE, SZSE); response is typically required within seven days	Section 408 of the SOX requires the DCF to review U.S. listed-firm filings at least once every three years; response is typically required within ten days
Factors affecting scrutiny	not applicable	(1) issuers that have issued material restatements of financial results;

		(2) issuers that experience significant volatility in their stock price as compared to other issuers; (3) issuers with the largest market capitalization; (4) emerging companies with disparities in price-to-earnings ratios; (5) issuers whose operations significantly affect any material sector of the economy; and (6) any other factors that the Commission may consider relevant.
First CL	2000	1998
Major regulatory changes	On January 21, 2014 at the Annual Futures Market Conference, the CSRC Chairman Xiao Gang delivered a speech that launched a major reform of regulatory oversight (people.cn, assessed on June 8, 2018). In his speech, Mr. Xiao emphasized that regulatory oversight is not just about conducting administrative review prior to a corporate event when an issuer is not incentivized to provide disclosures that are closely tied to firm value, but is also a new system of supervision and enforcement during and following a corporate event when the issuer is benchmarked with its industry peers and discloses both industry- and firm-specific risk factors that inform investor decision making. In a nutshell, the principle of regulatory oversight was shifted from *ex ante* approval to *ex post* oversight.	On June 24, 2004, the SEC announced the public release of comment and replies related to 10-Ks filed after August 1, 2004. The SEC began to publish CLs on EDGAR on May 12, 2005 with a delay between the end of a review and dissemination of 20 business days.

Appendix B. Variable definitions and data sources

All continuous variables are winsorized at the 1% and 99% levels. The base year is 2013.

Variable	Definition	Source
Comment letter-related variables		
CL	An indicator variable that takes the value of one if a firm receives a CL on its annual report in fiscal year t, and zero otherwise.	Hand-collected
Number of CL pages	The number of pages of a CL.	Hand-collected
Number of CL questions	The number of questions in a CL.	Hand-collected
Length of CL reply	The natural logarithm of (1 + number of words in a CL reply) – the natural logarithm of (1 + number of words in a CL), given that all CL replies repeat questions in CLs before responding.	Hand-collected
CLR topic	The number of words on a specific CLR topic scaled by the total number of words spanning nine CLR topics (in percentage points).	LDA analysis
Change in disclosure in amended annual reports	The change in disclosures from CL-year's annual report to amended annual report on the one topic that matches most closely to the CLR topic. To find the topic in CL-year's annual reports that most closely matches each of the nine CLR topics, we employ KL-divergence.	LDA analysis
Change in disclosure in the next year's annual reports	The change in disclosures from CL-year's annual report to next-year's annual report on the one topic that matches most closely to the CLR topic. To find the topic in CL-year's annual reports that most closely matches each of the nine CLR topics, we employ KL-divergence.	LDA analysis
Major change in disclosure	An indicator variable that takes the value of one if a targeted firm's changes in disclosure on a CLR topic in the next-year's annual report are in the top quartile across all targeted firms in the same year, and zero otherwise.	LDA analysis
Regulatory effect variables		
CAR (-2, +2)_ann	The five-day cumulative abnormal return from two days before to two days after the CL announcement day (day 0) where daily abnormal return is the difference between daily return and the value-weighted market return on the SSE.	CSMAR
CAR (-2, +2)_reply	The five-day cumulative abnormal return from two days before to two days after the CL reply day (day 0) where daily abnormal return is the difference between daily return and the value-weighted market return on the SSE.	CSMAR
Bid-ask spread	The three-month average of daily bid-ask spreads (adjusted by multiplying 100) after the release of next-year's annual report following Corwin and Schultz (2012). Daily bid-ask spread = $\frac{2(e^{\alpha}-1)}{1+e^{\alpha}}$ where $\alpha = \frac{\sqrt{2\beta}-\sqrt{\beta}}{3-2\sqrt{2}} - \sqrt{\frac{\gamma}{3-2\sqrt{2}}}$, $\beta = E\left\{\sum_{j=0}^{1}\left[ln\left(\frac{H_{t+j}}{L_{t+j}}\right)\right]^2\right\}$, $\gamma = \left[ln\left(\frac{H_{t,t+1}}{L_{t,t+1}}\right)\right]^2$, H_t is the high price on day t; L_t is the low price on day t; $H_{t,t+1}$ is the high price over the two days t and t+1; and $L_{t,t+1}$ is the low price over the two days t and t+1.	CSMAR
Section 408 criteria		
Internal control weakness	An indicator variable that takes the value of one if the internal control audit opinion is qualified for a material weakness, and zero otherwise.	CSMAR

High volatility	An indicator variable that takes the value of one if the volatility of abnormal monthly stock returns (i.e., the monthly return minus the value-weighted market return) is in the highest quartile, and zero otherwise. Return volatility is calculated as the standard deviation of abnormal monthly stock returns in a fiscal year.	CSMAR
Prior year stock return	The annualized compounded monthly stock return in a year.	CSMAR
Market capitalization	Share price at the fiscal year-end times the total number of shares outstanding at the fiscal year-end, in 100 million CNY. The base year is 2013 using the fiscal year-end CPI.	CSMAR
Ln(market cap)	The natural logarithm of market capitalization.	CSMAR
Other firm characteristics		
Small positive ΔEPS	An indicator variable that takes the value of one if the change in earnings per share (ΔEPS) falls in the interval of [0, 0.01], and zero otherwise, following Burgstahler and Dichev (1997).	CSMAR
Modified audit opinion	An indicator variable that takes the value of one if a firm is issued a modified opinion by its auditor, and zero otherwise. An audit opinion is considered modified if it is classified as unqualified with explanatory notes, qualified, disclaimer, or adverse, following Wang et al. (2008).	CSMAR
Big 4	An indicator variable that takes the value of one if a firm is client of one of the Big 4 auditors, and zero otherwise.	CSMAR
Auditor tenure	The number of consecutive years during which the same auditor has audited a firm.	He, Kothari, Xiao, and Zuo (2018) and hand-collected
Auditor turnover	An indicator variable that takes the value of one if there is an auditor turnover in a year, and zero otherwise.	He et al. (2018) and hand-collected
CEO/COB duality	An indicator variable that takes the value of one if the CEO is also Chairman of the Board (COB), and zero otherwise.	CSMAR
Board independence	The fraction of independent directors on a board.	CSMAR
Board size	The number of directors on a board.	CSMAR
Institutional ownership (IO)	The number of shares held by qualified foreign institutional investors (QFII), mutual funds, insurance firms, financial firms, securities companies, social securities funds, supplementary pension (additional funds set up by some firms for their employees; incidentally, regular pension funds are not allowed to own stocks in China), trust companies, financial products of securities companies, private funds managed by trust companies, banks, non-financial listed firms, scaled by the total number of shares outstanding.	WIND
Management ownership	The number of shares held by top management team scaled by the total number of shares outstanding.	CSMAR
SOE	An indicator variable that takes the value of one if the controlling shareholder is the government or government affiliated entity, and zero otherwise. The term "controlling shareholder" shall refer to a person that satisfies any of the following conditions: (1) the person, acting alone or in concert with others, has the power to elect more than half of the directors; 2) the person, acting alone or in concert with others, has the power to exercise or control the exercise of 30% or more of the company's voting rights; (3) the person, acting alone or in concert with others, holds 30% or more of the shares of the company; or (4) the person, acting alone or in concert with others, actually controls the company in any other manner (CSMAR User Guideline 2018).	CSMAR
Firm age	The number of years since a firm's founding.	CSMAR
Loss	An indicator variable that takes the value of one if basic EPS is negative, and zero otherwise.	CSMAR

Special treatment	An indicator variable that takes the value of one if a listed firm reports two consecutive years of losses, and zero otherwise	CSMAR
Sales growth	The change in sales from the beginning of a year to the end of the same year.	CSMAR
M&A	An indicator variable that takes the value of one if a firm has completed a merger or an acquisition in a year, and zero otherwise.	SDC
Related party transaction	Net value of other accounts receivables scaled by total assets, following Jiang, Wan, and Zhao (2015).	CSMAR
Loan guarantee	The amount of loan guarantees a firm provides for its subsidiaries and affiliates during a year scaled by equity, following Jiang et al. (2015).	CSMAR
Foreign listing	An indicator variable that takes the value of one if a firm also issues shares traded on U.S. stock exchange, or issues B-shares (shares traded on Chinese stock exchanges for foreign accounts) or H-shares (shares traded on the Hong Kong Stock Exchange), and zero otherwise.	CSMAR
Marketization index	The institutional development of the province where a firm's headquarters are located. The index is comprised of five sub-indices: 1) the relationship between the government and the market, 2) the development of non-government economic sectors, 3) the developmental level of the product market, 4) the developmental level of the factor market, and 5) the development of the intermediary market organization and the legal environment. The index ranges from 0 to 10, and its base year is 2008.	Wang et al. (2019)
M/B	Market capitalization scaled by book value of equity.	CSMAR
Leverage	Total liabilities scaled by total assets.	CSMAR
Operating CF	Operating cash flow scaled by lagged total assets	CSMAR
High (Low) relational contracting	An indicator variable that takes the value of one if a firm's related-party transactions are more (less) than 30% of its sales and/or if its government subsidies are larger (smaller) than 5% of its assets, and zero otherwise.	CSMAR
High (Low) political incentive	An indicator variable that takes the value of one in years when the stock market experiences major (minor) volatilities and hence regulators are (are not) incentivized not to cause further disruptions, and zero otherwise.	CSMAR

References

Ball, R., A. Robin, and J.S. Wu, 2000. Accounting standards, the institutional environment and issuer incentives: Effect on timely loss recognition in China. *Asia-Pacific Journal of Accounting and Economics* 7 (2): 71–96.

Ball, R., A. Robin, and J.S. Wu, 2003. Incentives versus standards: Properties of accounting income in four East Asia countries, *Journal of Accounting and Economics* 36 (1-3): 235–270.

Becker, G.S., and G.J. Stigler, 1974. Law enforcement, malfeasance, and compensation of enforcers, *Journal of Legal Studies* 3 (1): 1–18.

Bertrand, M., and S. Mullainathan, 2003. Enjoying the quiet life? Corporate governance and managerial preferences, *Journal of Political Economy* 111 (5): 1043–1075.

Bhattacharya, U., and H. Daouk, 2002. The world price of insider trading, *Journal of Finance* 57 (1): 75–108.

Blei, D.M, A.Y. Ng, and M.I. Jordan, 2003. Latent Dirichlet allocation, *Journal of Machine Learning Research* 3, 993–1022.

Burgstahler, D., and I. Dichev, 1997. Earnings management to avoid earnings decreases and losses, *Journal of Accounting and Economics* 24 (1): 99–126.

Cassell, C., L. Dreher, and L. Myers, 2013. Reviewing the SEC's review process: 10-K comment letters and the cost of remediation, *Accounting Review* 88 (6): 1875–1908.

Chaney, P.K., M. Faccio, and D. Parsley, 2011. The quality of accounting information in politically connected firms, *Journal of Accounting and Economics* 51 (1-2): 58–76.

Chen, G., M. Firth, D.N. Gao, and O.M. Rui, 2005. Is China's securities regulatory agency a toothless tiger? Evidence from enforcement actions, *Journal of Accounting and Public Policy* 24 (6): 451–488.

Chen, F., S. Peng, S. Xue, Z. Yang, and F. Ye, 2016. Do audit clients successfully engage in opinion shopping? Partner-level evidence, *Journal of Accounting Research* 54 (1): 79–112.

Christensen, H.B., L. Hail, and C. Leuz, 2013. Mandatory IFRS reporting and changes in enforcement, *Journal of Accounting and Economics* 56 (2-3): 147–177.

Christensen, H.B., L. Hail, and C. Leuz, 2016. Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement, *Review of Financial Studies* 29 (11): 2885–2924.

Corwin, S.A., and P. Schultz, 2012. A simple way to estimate bid-ask spreads from daily high and low prices, *Journal of Finance* 67 (2): 719–760.

Dechow, P., A. Lawrence, and J.P. Ryans, 2016. SEC comment letters and insider sales, *Accounting Review* 91 (2): 401–439.

DeFond, M.L., T.J. Wong, and S. Li, 2000. The impact of improved auditor independence on audit market concentration in China, *Journal of Accounting and Economics* 28 (3): 269–305.

Del Guercio, D., E.R. Odders-White, and M.J. Ready, 2017. The deterrent effect of the Securities and Exchange Commission's enforcement intensity on illegal insider trading: Evidence from run-up before news events, *Journal of Law and Economics* 60 (2): 269–307.

He, X, S.P. Kothari, T. Xiao, and L. Zuo, 2018. Long-term impact of economic conditions on auditors' judgment, *Accounting Review* 93 (6): 203–229.

He, X., T.J. Wong, and D. Young, 2012. Challenges for implementation of Fair Value Accounting in emerging markets: Evidence from China, *Contemporary Accounting Research* 29 (2): 538–562.

Huang, W., and T. Zhu, 2015. Foreign institutional investors and corporate governance in emerging markets: Evidence of a split-share structure reform in China, *Journal of Corporate Finance* 32: 312–326.

Hung, M., T.J. Wong, and F. Zhang, 2015. The value of political ties versus market credibility: Evidence from corporate scandals in China, *Contemporary Accounting Review* 32 (4): 1641-1675.

Jackson, H., and M. Roe, 2009. Public and private enforcement of securities laws: Resource-based evidence, *Journal of Financial Economics* 93 (2): 207–238.

Jian, M., and T.J. Wong, 2010. Propping through related party transactions, *Review of Accounting Studies* 15 (1): 70-105.

Jiang, W., H. Wan, and S. Zhao, 2015. Reputation concerns of independent directors: Evidence from individual director voting, *Review of Financial Studies* 29 (3): 655–696.

Johnston, R., and R. Petacchi, 2017. Regulatory oversight of financial reporting: Securities and Exchange Commission comment letters, *Contemporary Accounting Research* 34 (2): 1128–1155.

Kullback, S., and R. A. Leibler, 1951. On information and sufficiency, *Annals of Mathematical Statistics* 22 (1): 79–86.

Landes, W.M., and R.A. Posner, 1975. The private enforcement of law, *Journal of Legal Studies* 4 (1): 1–46.

La Porta, R., F. Lopez-de-Silanes, and A. Shleifer, 2006. What works in securities laws? *Journal of Finance* 61 (1): 1–32.

Layton, M.A., 2008. Is private securities litigation essential for the development of China's stock markets? *New York University Law Review* 83 (6): 1948–1978.

Li, K., T. Wang, Y.L. Cheung, and P. Jiang, 2011. Privatization and risk sharing: Evidence from the split share structure reform in China, *Review of Financial Studies* 24 (7): 2499–2525.

Li, Z., T.J. Wong, and G. Yu, 2020. Information dissemination through embedded financial analysts: Evidence from China, *Accounting Review* 95 (2): 257–281.

Lowry, M., R. Michaely, and E. Volkova, 2020. Information revelation through regulatory process: Interactions between the SEC and companies ahead of the IPO, *Review of Financial Studies* 33 (12): 5510–5554.

Piotroski, J.D., and T.J. Wong, 2012. Institutions and information environment of Chinese listed firms, in: *Capitalizing China,* J.P.H. Fan and R. Morck, eds. University of Chicago Press: Chicago, 201–242.

Piotroski, J.D., T.J. Wong, and T. Zhang, 2015. Political incentives to suppress negative information: Evidence from Chinese listed firms, *Journal of Accounting Research* 53 (2): 405–459.

Rajan, R.G., and L. Zingales, 1998. Financial dependence and growth, *American Economic Review* 88 (3): 559–586.

Ryans, J.P., 2021. Textual classification of SEC comment letters, *Review of Accounting Studies* 26 (1): 37–80.

SEC, 2018. Division of corporation finance - Filing review process, https://www.sec.gov/divisions/corpfin/cffilingreview.htm#.VQBzofl4q-1 (accessed 10/18/2018).

Shleifer, A., 2005. Understanding regulation, *European Financial Management* 11 (4): 439–451.

Stigler, G.J., 1964. Public regulation of the securities markets, *Journal of Business* 37 (2): 117–142.

Stigler, G.J., 1971. The theory of economic regulation, *Bell Journal of Economics and Management Science* 2 (1): 3–21.

Wang, Q., T.J. Wong, and L. Xia, 2008. State ownership, institutional environment, and auditor choice: Evidence from China, *Journal of Accounting and Economics* 46 (1): 112–134.

Wang, X., G. Fan, and L. Hu, 2019. *Marketization Index of China's Provinces: NERI Report 2018*, Social Sciences Academic Press: Beijing, China.

Wong, T.J., 2014. Corporate governance research on listed firms in China: Institutions, governance and accountability, *Foundations and Trends in Accounting* 9 (4): 259–326.

Figure 1. Our textual analysis approach

The flow chart provides an overview of our textual analysis approach step-by-step.

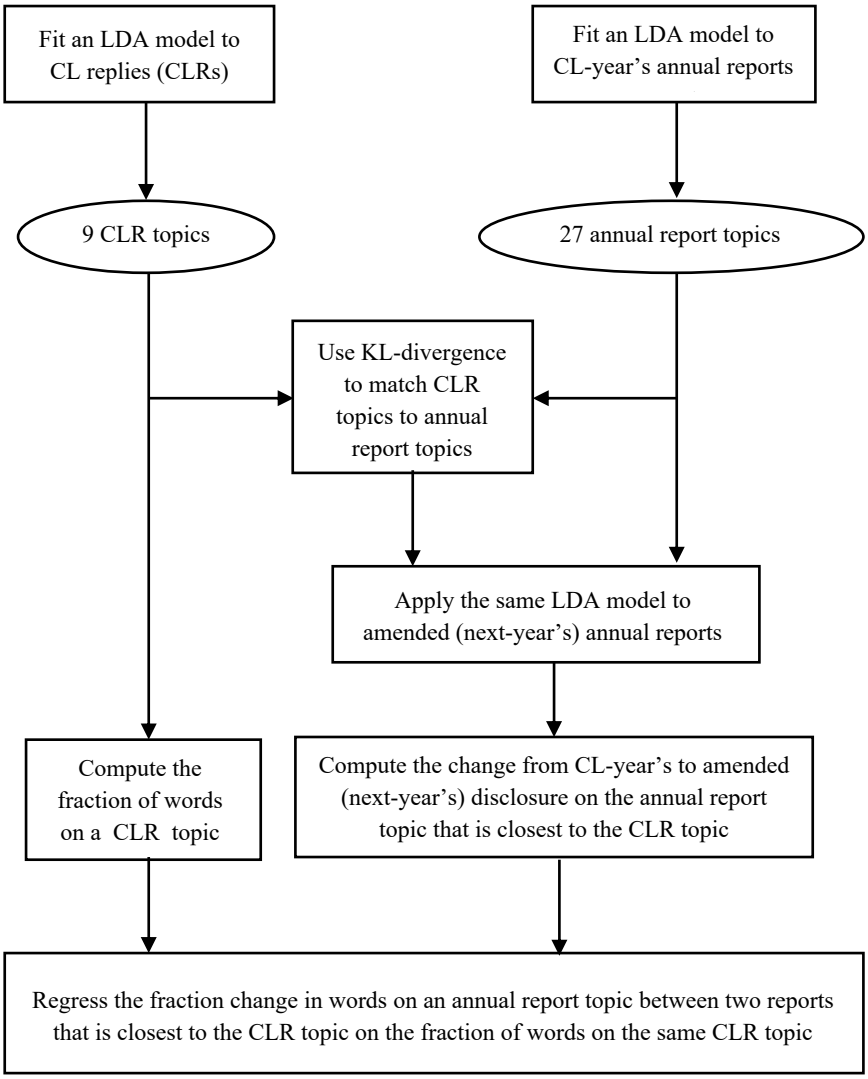
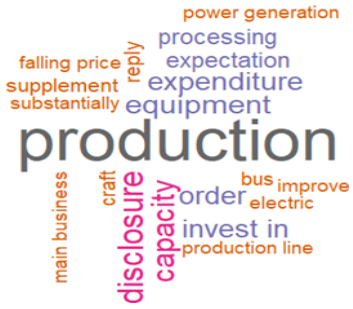


Figure 2. CLR topic word clouds

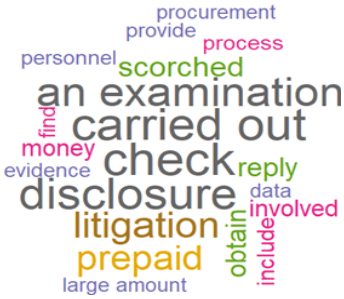
The sample consists of 929 CL replies made by firms listed on the SSE over the period 2013-2018. We employ topic modelling analysis (LDA) across this set of replies to identify nine topics. The word clouds illustrate the top 20 words in each topic. The size of the word corresponds to its frequency within the topic.

Topic 1 Liquidity issues (MD&A)



Topic 2 Results of operations (MD&A)

Topic 3 Pro-forma financial information reporting issues



Topic 4 Contingencies, commitment, and legal accounting issues

Topic 5 Risk factors - competition and competitors

Topic 6 Inventory, vendor, and/or cost of sales issues

Topic 7 Accounts receivable and cash reporting issues

Topic 8 Business overview issues (MD&A)

Topic 9 Property, plant, and equipment fixed assets issues

Table 1. Sample overview

This table provides an overview of our sample. The sample consists of firms listed on the SSE over the period 2013-2018. Panel A describes our data collection process and sources. Our primary data source is the SSE's website. Only when we do not find any information about CLs on the SSE's website, do we move to alternative data sources. Column (1) gives the number of firms that receive CLs identified from the SSE's website. Columns (2)-(4) gives the number of firms that receive CLs identifies from CLs, CL replies, and supplemental announcements, respectively, from the websites of Shanghai Securities News (www.cnstock.com) and Securities Times (www.stcn.com). Columns (5)-(7) gives the number of firms in receipt of CLs, the number of firms listed on the SSE, and the fraction of SSE firms in receipt of CLs, respectively. Panel B provides the summary statistics of CL characteristics. Variable definitions are provided in Appendix B.

Panel A: CLs over time and from different sources

Year	SSE	Corporate announcements			CLs (Yes or No)	No. of SSE firms	% of SSE firms receiving CLs
	CLs (1)	CLs (2)	CL replies (3)	Supplemental announcements (4)	(5)	(6)	(7)
2013	0	2	75	25	102	948	10.76%
2014	0	1	120	13	134	1,005	13.33%
2015	75	49	9	3	136	1,076	12.64%
2016	124	31	0	3	158	1,217	12.98%
2017	126	72	0	0	198	1,404	14.10%
2018	155	90	0	0	245	1,456	19.83%
Total	480	245	204	44	973	7,106	13.69%

Panel B: Summary statistics of CL characteristics

Variable	N	Mean	Median	Std. Dev.	Min	Max
Number of pages	725	5.023	5.000	1.865	2.000	11.000
Number of questions	929	11.085	10.000	4.876	2.000	26.000

Table 2. Summary statistics

This table provides sample summary statistics. The sample consists of firms listed on the SSE over the period 2013-2018. Panel A provides descriptive statistics of the determinants of a firm in receipt of a CL and CL characteristics. The last two columns present tests of differences in means and medians between the two subsamples of firm-years in receipt of a CL and firm-years not. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. Panel B presents correlation matrix. Superscripts a, b, and c correspond to statistical significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are provided in Appendix B.

Panel A: Descriptive statistics of determinants of CLs and CL characteristics

	CL = 1				CL = 0				Test of differences	
Variable	N	Mean	Median	Std.Dev.	N	Mean	Median	Std.Dev.	t-test	Wilcoxon test
Section 408 criteria										
Internal control weakness	973	0.548	1.000	0.498	6,133	0.487	0.000	0.500	0.061***	1.000***
High volatility	953	0.308	0.000	0.462	5,946	0.239	0.000	0.427	0.069***	0.000***
Prior year stock return	961	0.039	-0.134	0.612	6,036	0.111	-0.042	0.581	-0.072***	-0.092***
Market capitalization	961	94.074	56.928	107.480	6,038	190.947	72.989	388.619	-96.873***	-16.061***
Ln(market cap)	961	22.570	22.462	0.841	6,038	22.876	22.711	1.105	-0.306***	-0.2490***
Earnings quality										
Small positive ΔEPS	973	0.042	0.000	0.201	6,133	0.027	0.000	0.161	0.016***	0.000***
Auditor characteristics										
Modified audit opinion	973	0.141	0.000	0.348	6,133	0.030	0.000	0.170	0.111***	0.000***
Big 4	973	0.053	0.000	0.225	6,133	0.120	0.000	0.325	-0.067***	0.000***
Auditor tenure	973	7.561	5.000	6.338	6,133	7.199	5.000	6.364	0.362*	0.000*
Auditor turnover	973	0.111	0.000	0.314	6,133	0.074	0.000	0.261	0.037***	0.000***
Corporate governance characteristics										
CEO/COB duality	973	0.234	0.000	0.424	6,133	0.199	0.000	0.399	0.035**	0.000**
Board independence	973	0.377	0.364	0.054	6,133	0.373	0.357	0.052	0.004**	-0.007**
Board size	973	8.631	9.000	1.843	6,133	9.013	9.000	1.989	-0.382***	0.000***
Institutional ownership	973	0.042	0.020	0.062	6,133	0.054	0.026	0.078	-0.012***	-0.006***
Management ownership	973	0.037	0.000	0.109	6,133	0.049	0.000	0.130	-0.011***	0.000
SOE	973	0.418	0.000	0.494	6,133	0.555	1.000	0.497	-0.137***	-1.000***

Other firm controls										
Firm age	973	19.616	20.000	4.837	6,133	18.018	18.000	5.190	1.598***	2.000***
Loss	973	0.249	0.000	0.432	6,133	0.069	0.000	0.254	0.179***	0.000***
Special treatment	964	0.063	0.000	0.244	6,053	0.023	0.000	0.151	0.040***	0.000***
Sales growth	973	0.122	0.031	0.497	6,133	0.120	0.082	0.341	0.002	-0.051***
M&A	973	0.076	0.000	0.265	6,133	0.055	0.000	0.229	0.021**	0.000**
Related party transaction	973	0.028	0.013	0.039	6,133	0.016	0.007	0.025	0.012***	0.006***
Loan guarantee	973	0.221	0.032	0.405	6,133	0.118	0.000	0.290	0.102***	0.032***
Foreign listing	973	0.066	0.000	0.248	6,133	0.106	0.000	0.308	-0.041***	0.000***
Marketization index	973	7.618	7.470	2.057	6,133	8.207	9.140	1.808	-0.589***	-1.670***
M/B	961	5.653	2.631	10.609	6,038	3.942	2.471	6.350	1.711***	0.160***
Leverage	973	0.539	0.558	0.226	6,133	0.483	0.475	0.218	0.056***	0.083***
Operating CF	973	0.017	0.022	0.091	6,133	0.054	0.053	0.089	-0.037***	-0.031***

Panel B: Correlation matrix

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
(1)	CL	1.00																			
(2)	Internal control weakness	0.04[a]	1.00																		
(3)	High volatility	0.06[a]	-0.07[a]	1.00																	
(4)	Prior year stock return	-0.04[a]	-0.12[a]	0.25[a]	1.00																
(5)	Ln(market cap)	-0.10[a]	0.11[a]	-0.10[a]	0.18[a]	1.00															
(6)	Small positive DEPS	0.03[a]	0.02	0.01	-0.03[b]	-0.06[a]	1.00														
(7)	Modified audit opinion	0.18[a]	0.04[a]	0.09[a]	-0.02	-0.13[a]	0.02[c]	1.00													
(8)	Big 4	-0.08[a]	0.04[a]	-0.09[a]	0.00	0.47[a]	-0.00	-0.06[a]	1.00												
(9)	Auditor tenure	0.02	0.05[a]	-0.11[a]	0.00	-0.04[a]	0.02[c]	-0.01	-0.10[a]	1.00											
(10)	Auditor turnover	0.05[a]	0.01	0.00	-0.00	0.03[b]	-0.00	0.07[a]	0.06[a]	-0.30[a]	1.00										
(11)	CEO/COB duality	0.03[a]	-0.05[a]	0.07[a]	-0.01	-0.10[a]	0.01	0.02[c]	-0.06[a]	-0.09[a]	-0.02	1.00									
(12)	Board independence	0.03[b]	0.03[a]	0.03[a]	-0.01	0.06[a]	0.02[b]	0.01	0.07[a]	-0.02[b]	0.01	0.08[a]	1.00								
(13)	Board size	-0.07[a]	0.04[a]	-0.11[a]	-0.00	0.33[a]	-0.03[a]	-0.05[a]	0.21[a]	-0.02[b]	0.02	-0.16[a]	-0.39[a]	1.00							
(14)	Institutional ownership	-0.06[a]	0.00	-0.08[a]	0.12[a]	0.23[a]	-0.04[a]	-0.08[a]	0.17[a]	0.11[a]	-0.02[c]	-0.04[a]	-0.04[a]	0.10[a]	1.00						
(15)	Management ownership	-0.03[b]	-0.09[a]	0.15[a]	-0.08[a]	-0.18[a]	-0.02[c]	-0.05[a]	-0.10[a]	-0.24[a]	-0.05[a]	0.34[a]	0.05[a]	-0.15[a]	-0.11[a]	1.00					
(16)	SOE	-0.10[a]	0.12[a]	-0.16[a]	0.01	0.19[a]	0.01	-0.05[a]	0.15[a]	0.11[a]	0.06[a]	-0.28[a]	-0.03[b]	0.25[a]	0.08[a]	-0.37[a]	1.00				
(17)	Firm age	0.11[a]	0.09[a]	-0.04[a]	-0.09[a]	-0.10[a]	0.01	0.07[a]	-0.07[a]	0.30[a]	0.01	-0.05[a]	-0.07[a]	-0.01	0.07[a]	-0.16[a]	0.05[a]	1.00			
(18)	Loss	0.21[a]	0.05[a]	0.06[a]	-0.01	-0.17[a]	-0.06[a]	0.33[a]	-0.08[a]	0.03[b]	0.04[a]	-0.02	0.01	-0.03[b]	-0.10[a]	-0.07[a]	0.02[c]	0.08[a]	1.00		
(19)	Special treatment	0.08[a]	0.02[c]	0.08[a]	-0.02[b]	-0.14[a]	0.02	0.30[a]	-0.06[a]	-0.03[a]	0.09[a]	-0.00	0.02	-0.05[a]	-0.08[a]	-0.04[a]	-0.01	0.07[a]	0.13[a]	1.00	
(20)	Sales growth	0.00	-0.03[a]	0.05[a]	0.00	0.04[a]	-0.01	-0.05[a]	-0.00	-0.05[a]	0.00	0.04[a]	0.01	-0.04[a]	0.03[a]	0.07[a]	-0.12[a]	0.01	-0.16[a]	0.03[a]	1.00
(21)	M&A	0.03[b]	-0.01	0.03[a]	0.05[a]	0.05[a]	0.00	-0.02	-0.02[c]	-0.03[b]	0.08[a]	-0.02	0.01	-0.02	-0.02[c]	-0.01	-0.02[c]	0.03[b]	-0.05[a]	0.03[b]	0.08[a]
(22)	Related party transaction	0.15[a]	-0.00	0.02[b]	0.00	-0.06[a]	-0.01	0.15[a]	-0.02[b]	0.04[a]	0.03[b]	0.01	0.07[a]	-0.05[a]	-0.04[a]	-0.07[a]	-0.03[b]	0.07[a]	0.10[a]	0.09[a]	-0.02
(23)	Loan guarantee	0.11[a]	0.03[b]	0.02	-0.01	-0.05[a]	-0.03[a]	0.12[a]	-0.05[a]	0.04[a]	-0.00	-0.01	0.00	0.01	-0.05[a]	-0.06[a]	-0.06[a]	0.10[a]	0.10[a]	0.06[a]	0.03[a]
(24)	Foreign listing	-0.05[a]	0.06[a]	-0.06[a]	0.01	0.33[a]	-0.00	-0.03[a]	0.50[a]	-0.01	0.04[a]	-0.08[a]	0.05[a]	0.17[a]	0.09[a]	-0.12[a]	0.20[a]	0.05[a]	-0.03[b]	-0.02	-0.02
(25)	Marketization index	-0.11[a]	0.02	0.02[b]	-0.01	0.11[a]	-0.02[c]	-0.08[a]	0.13[a]	0.04[a]	-0.06[a]	0.07[a]	-0.02[c]	-0.03[b]	0.02	0.16[a]	-0.09[a]	0.03[a]	-0.12[a]	-0.08[a]	0.03[b]
(26)	M/B	0.08[a]	-0.04[a]	0.17[a]	0.20[a]	-0.14[a]	0.05[a]	0.33[a]	-0.11[a]	-0.03[b]	0.03[b]	0.05[a]	0.05[a]	-0.13[a]	-0.04[a]	0.01	-0.14[a]	0.06[a]	0.18[a]	0.20[a]	0.03[b]
(27)	Leverage	0.09[a]	0.11[a]	-0.05[a]	0.04[a]	0.20[a]	-0.01	0.18[a]	0.18[a]	0.03[b]	0.06[a]	-0.15[a]	0.03[b]	0.22[a]	0.04[a]	-0.25[a]	0.25[a]	0.12[a]	0.18[a]	0.11[a]	0.00
(28)	Operating CF	-0.14[a]	-0.04[a]	-0.02	0.04[a]	0.13[a]	-0.05[a]	-0.12[a]	0.06[a]	-0.04[a]	-0.03[b]	0.02[c]	-0.01	0.01	0.09[a]	0.10[a]	-0.05[a]	-0.09[a]	-0.19[a]	-0.07[a]	0.03[a]

		(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
(21)	M&A	1.00							
(22)	Related party transaction	0.00	1.00						
(23)	Loan guarantee	0.01	0.16[a]	1.00					
(24)	Foreign listing	-0.01	-0.03[b]	-0.04[a]	1.00				
(25)	Marketization index	0.00	-0.05[a]	-0.03[b]	0.15[a]	1.00			
(26)	M/B	-0.02	0.09[a]	0.07[a]	-0.10[a]	-0.05[a]	1.00		
(27)	Leverage	0.02[c]	0.15[a]	0.34[a]	0.15[a]	-0.08[a]	0.12[a]	1.00	
(28)	Operating CF	0.01	-0.15[a]	-0.11[a]	-0.00	0.04[a]	-0.05[a]	-0.19[a]	1.00

Table 3. Determinants of CL receipts and characteristics

This table examines the determinants of a firm in receipt of a CL and CL characteristics. The sample consists of firms listed on the SSE over the period 2013-2018. Column (1) presents logistic regression results when the dependent variable is the indicator variable *CL*. Columns (2) and (3) present Poisson regression results when the dependent variables are CL characteristics: *Number of CL pages* and *Number of CL questions*, respectively. Variable definitions are provided in Appendix B. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Variable	CL	Number of CL pages	Number of CL questions
	(1)	(2)	(3)
Internal control weakness	0.167**	0.189**	0.153**
	(0.084)	(0.078)	(0.071)
High volatility	0.153*	0.079	0.090
	(0.089)	(0.078)	(0.073)
Prior year stock return	-0.121	-0.127	-0.090
	(0.094)	(0.100)	(0.087)
Ln(market cap)	-0.049	0.054	0.037
	(0.053)	(0.047)	(0.045)
Small positive ΔEPS	0.554***	0.421**	0.444**
	(0.209)	(0.199)	(0.175)
Modified audit opinion	0.650***	0.409***	0.409***
	(0.164)	(0.129)	(0.123)
Big 4	-0.400**	-0.557***	-0.408**
	(0.200)	(0.203)	(0.186)
Auditor tenure	0.005	0.008	0.003
	(0.007)	(0.007)	(0.007)
Auditor turnover	0.322**	0.327***	0.270**
	(0.143)	(0.118)	(0.110)
CEO/COB duality	0.134	0.144	0.093
	(0.103)	(0.088)	(0.085)
Board independence	-0.297	-0.541	-0.393
	(0.967)	(0.841)	(0.776)
Board size	-0.053*	-0.025	-0.031
	(0.028)	(0.028)	(0.026)
Institutional ownership	-0.710	-0.484	-0.391
	(0.676)	(0.660)	(0.620)
Management ownership	-1.111**	-0.921***	-1.001***
	(0.437)	(0.337)	(0.332)
SOE	-0.523***	-0.536***	-0.457***
	(0.092)	(0.091)	(0.085)
Firm age	0.041***	0.034***	0.033***
	(0.010)	(0.010)	(0.009)
Loss	1.092***	0.963***	0.927***
	(0.116)	(0.104)	(0.094)
Special treatment	-0.174	-0.403**	-0.330**
	(0.214)	(0.162)	(0.162)
Sales growth	0.144	0.120	0.149*
	(0.103)	(0.083)	(0.083)
M&A	0.422***	0.407***	0.404***
	(0.146)	(0.124)	(0.120)
Related party transaction	7.441***	4.867***	4.932***
	(1.153)	(0.822)	(0.751)
Loan guarantee	0.420***	0.341***	0.378***
	(0.121)	(0.088)	(0.080)
Foreign listing	0.058	-0.104	-0.095

	(0.171)	(0.188)	(0.155)
Marketization index	-0.134***	-0.129***	-0.117***
	(0.021)	(0.020)	(0.018)
Constant	-1.135	-6.356***	-1.152
	(1.217)	(1.305)	(1.071)
Industry fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES
Pseudo R^2	0.120	0.263	0.176
N	6,881	6,656	6,856

Table 4. Price reactions to CL receipts and replies

This table examines price reactions to CL receipts and replies. Panel A presents descriptive statistics of the five-day *CAR (-2, +2)_ann* and *CAR (-2, +2)_reply*. The sample for *CAR (-2, +2)_ann* consists of 579 CLs received by 428 SSE-listed firms over the period 2015-2018. We manually check whether the announcement of a CL coincides with the announcement of other major corporate events including earnings announcements, management turnover, acquisitions, restructurings, dividends, and stock repurchases, in the event window examined, and drop those with contemporaneous major event announcements. The sample for *CAR (-2, +2)_reply* consists of 389 CL replies, which is a subsample of the CL receipt sample due to data availability or our removal of cases with overlapping event windows for *CAR(-2, +2)_ann* and *CAR(-2, +2)_reply*. We also manually check to make sure there is no other major corporate event in the event window examined. Panel B presents OLS regression results when the dependent variables are *CAR (-2, +2)_ann* and *CAR (-2, +2)_reply*. Variable definitions are provided in Appendix B. Standard errors clustered at the CL announcement date level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Descriptive statistics

	N	Mean	Median	Std.Dev
CAR (-2, +2)_ann	579	-0.025***	-0.020	0.069
CAR (-2, +2)_reply	389	-0.007**	-0.008	0.057

Panel B: Explaining *CAR (-2, +2)_ann* and *CAR (-2, +2)_reply*

Variable	CAR (-2, +2)_ann		CAR(-2, +2)_reply
	(1)	(2)	(3)
Number of CL pages	-0.005***		
	(0.002)		
Number of CL questions		-0.001**	
		(0.001)	
Length of CL reply			-0.013**
			(0.006)
Ln(market cap)	0.001	0.001	-0.002
	(0.004)	(0.004)	(0.005)
M/B	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Leverage	-0.039**	-0.040**	-0.003
	(0.017)	(0.017)	(0.014)
Operating CF	-0.002	0.001	0.033
	(0.033)	(0.033)	(0.035)
Institutional ownership	-0.020	-0.026	0.062
	(0.048)	(0.049)	(0.046)
SOE	0.012	0.013*	0.005
	(0.007)	(0.007)	(0.008)
Loss	0.002	0.001	0.012*
	(0.008)	(0.008)	(0.006)
Big 4	0.004	0.007	-0.007
	(0.013)	(0.014)	(0.011)
Foreign listing	-0.010	-0.011	0.011
	(0.010)	(0.009)	(0.015)
Marketization index	-0.001	-0.001	-0.002
	(0.002)	(0.001)	(0.001)
Constant	-0.038	-0.034	0.065
	(0.099)	(0.100)	(0.113)
Industry fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES
R^2	0.080	0.074	0.070
N	573	573	385

Table 5. Changes in disclosure in amended and next-year's annual reports

This table examines changes in disclosure in amended and next-year's annual reports. Using LDA analysis, nine topics are extracted from the set of 929 CL replies, and twenty-seven topics are extracted from the set of 929 CL-year's annual reports. Our CL reply sample of 929 observations differs from our CL sample of 973 observations in Table 1 because we exclude 44 observations for which the receipt of a CL is identified from supplemental announcements without the actual CL nor its reply. To find the topic in CL-year's annual reports that most closely matches each of the nine CLR topics, we employ KL-divergence. Panel A presents the mean and median fraction (in percentage points) and number of words for each CL reply (CLR) topic. Panel B examines changes in disclosure in amended annual reports on the one topic that matches most closely to the CLR topic. Each column presents the OLS regression results where the dependent variable is the change in disclosures from CL-year's annual report to amended annual report on one of the nine CLR topics, and the key explanatory variable is the fraction of words in the same CLR topic. Panel C examines changes in disclosure in next-year's annual reports on the one topic that matches most closely to the CLR topic. Each column presents the OLS regression results where the dependent variable is the change in disclosures from CL-year's annual report to next-year's annual report on one of the nine CLR topics, and the key explanatory variable is the fraction of words in the same CLR topic. Variable definitions are provided in Appendix B. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Nine topics from LDA analysis of CL replies

	Liquidity issues	Results of operations	Pro-forma financial information reporting issues	Contingencies, commitment, and legal accounting issues	Risk factors – competition and competitors	Inventory, vendor, and/or cost of sales issues	Accounts receivable and cash reporting issues	Business overview issues	PPE fixed assets issues
CLR topic number	1	2	3	4	5	6	7	8	9
CLR topic (mean)	25.345	7.788	5.574	5.835	12.943	6.623	14.954	12.677	8.262
CLR topic (median)	19.058	0.661	0.542	0.933	7.852	0.000	10.115	3.245	2.458
# of words for CLR topic (mean)	319.005	114.888	136.238	108.066	212.324	102.301	246.899	158.039	124.843
# of words for CLR topic (median)	222.000	7.000	5.000	10.000	107.000	0.000	115.000	38.000	33.000

Panel B: Changes in disclosures in amended annual reports (Top one matched topic)

	Liquidity issues (1)	Results of operations (2)	Pro-forma financial information reporting issues (3)	Contingencies, commitment, and legal accounting issues (4)	Risk factors – competition and competitors (5)	Inventory, vendor, and/or cost of sales issues (6)	Accounts receivable and cash reporting issues (7)	Business overview issues (8)	PPE fixed assets issues (9)
CLR topic	0.010***	0.015**	-0.009**	0.013*	0.031***	0.024***	0.005	0.013***	0.003
	(0.004)	(0.006)	(0.004)	(0.007)	(0.007)	(0.009)	(0.009)	(0.004)	(0.003)
Ln(market cap)	-0.053	-0.003	0.130*	-0.032	0.006	-0.021	-0.031	-0.039	-0.017
	(0.039)	(0.039)	(0.075)	(0.043)	(0.088)	(0.069)	(0.179)	(0.030)	(0.031)
M/B	0.001	0.003	0.001	0.003	0.008	0.012	-0.025	0.001	0.001

	(0.007)	(0.003)	(0.004)	(0.007)	(0.011)	(0.009)	(0.017)	(0.002)	(0.001)
Leverage	0.178	-0.276	0.457	0.077	-0.020	-0.104	0.846	-0.125	0.077
	(0.168)	(0.193)	(0.295)	(0.185)	(0.368)	(0.183)	(0.945)	(0.148)	(0.082)
Operating CF	0.298	0.857**	0.009	0.237	0.182	0.217	-0.264	0.059	-0.473*
	(0.554)	(0.337)	(0.682)	(0.553)	(0.804)	(0.824)	(1.913)	(0.202)	(0.274)
Institutional ownership	-0.162	0.195	-0.534	-0.257	-0.148	-2.005	-0.469	0.734*	0.056
	(0.550)	(0.351)	(0.803)	(0.473)	(1.164)	(1.299)	(2.919)	(0.432)	(0.195)
SOE	-0.069	-0.009	-0.292**	-0.022	-0.218	-0.132	0.259	0.046	0.030
	(0.071)	(0.085)	(0.121)	(0.069)	(0.146)	(0.099)	(0.292)	(0.073)	(0.038)
Loss	0.099	-0.058	0.119	0.095	-0.145	-0.084	0.540	-0.021	-0.091**
	(0.098)	(0.055)	(0.157)	(0.104)	(0.147)	(0.088)	(0.348)	(0.077)	(0.040)
Big 4	0.074	-0.087	-0.458	0.052	-0.239	-0.289*	0.784	0.075	-0.053
	(0.096)	(0.088)	(0.304)	(0.079)	(0.406)	(0.170)	(0.483)	(0.062)	(0.186)
Foreign listing	-0.039	-0.007	-0.278	-0.030	0.699*	-0.115	-0.275	-0.077	0.160
	(0.106)	(0.091)	(0.226)	(0.111)	(0.376)	(0.158)	(0.560)	(0.093)	(0.180)
Marketization index	-0.016	0.011	-0.013	-0.022	-0.082**	-0.037	-0.055	0.021	0.004
	(0.020)	(0.013)	(0.028)	(0.022)	(0.036)	(0.024)	(0.077)	(0.014)	(0.009)
No. of CL questions	0.004	-0.006	0.012	0.001	0.009	0.019	0.013	-0.003	-0.001
	(0.008)	(0.007)	(0.014)	(0.008)	(0.016)	(0.014)	(0.043)	(0.007)	(0.003)
Length of CL reply	0.111	-0.007	0.192*	0.060	0.230*	0.013	-0.485	0.049	0.038
	(0.106)	(0.036)	(0.111)	(0.094)	(0.134)	(0.081)	(0.310)	(0.087)	(0.036)
Constant	0.867	0.169	-3.338*	0.746	0.013	0.584	0.499	0.656	0.247
	(0.871)	(0.889)	(1.714)	(0.976)	(1.931)	(1.658)	(4.215)	(0.690)	(0.730)
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.146	0.181	0.132	0.131	0.288	0.296	0.110	0.198	0.115
N	351	351	351	351	351	351	351	351	351

Panel C: Changes in disclosures in next-year's annual reports (Top one matched topic)

	Liquidity issues (1)	Results of operations (2)	Pro-forma financial information reporting issues (3)	Contingencies, commitment, and legal accounting issues (4)	Risk factors – competition and competitors (5)	Inventory, vendor, and/or cost of sales issues (6)	Accounts receivable and cash reporting issues (7)	Business overview issues (8)	PPE fixed assets issues (9)
CLR topic	0.010**	-0.005	-0.000	0.031**	0.006	0.014*	-0.015	-0.003	-0.001
	(0.005)	(0.005)	(0.008)	(0.014)	(0.007)	(0.008)	(0.011)	(0.004)	(0.003)
Ln(market cap)	0.152	-0.010	0.081	0.170*	0.143	-0.078	0.068	-0.044	0.036
	(0.101)	(0.044)	(0.087)	(0.101)	(0.106)	(0.074)	(0.209)	(0.056)	(0.045)
M/B	-0.038***	0.001	0.002	-0.039***	-0.002	-0.001	-0.025	-0.010	0.010

	(0.013)	(0.002)	(0.007)	(0.013)	(0.008)	(0.003)	(0.017)	(0.006)	(0.007)
Leverage	1.355***	-0.123	-0.994***	1.228***	-0.801**	0.103	0.020	-0.107	0.054
	(0.389)	(0.146)	(0.315)	(0.387)	(0.389)	(0.177)	(0.744)	(0.167)	(0.111)
Operating CF	-1.579	0.099	0.224	-1.563	1.502	0.486	-0.667	-0.491	-0.355
	(1.158)	(0.268)	(0.811)	(1.114)	(0.997)	(0.470)	(1.792)	(0.316)	(0.373)
Institutional ownership	1.324	0.308	0.378	1.238	-3.825***	-1.199	-0.904	-0.573	-0.608**
	(1.136)	(0.442)	(1.016)	(1.152)	(1.205)	(0.946)	(2.541)	(0.563)	(0.309)
SOE	-0.484***	0.156**	0.306**	-0.461***	0.344**	-0.158	1.015***	0.033	0.075
	(0.179)	(0.067)	(0.140)	(0.172)	(0.173)	(0.098)	(0.311)	(0.083)	(0.061)
Loss	0.472*	0.009	0.002	0.427*	-0.341	-0.157*	0.188	0.044	-0.051
	(0.246)	(0.070)	(0.186)	(0.242)	(0.210)	(0.086)	(0.386)	(0.113)	(0.085)
Big 4	-0.545**	-0.175	0.626*	-0.470*	-0.213	0.050	0.643	-0.091	-0.529***
	(0.242)	(0.156)	(0.320)	(0.240)	(0.447)	(0.156)	(0.788)	(0.163)	(0.176)
Foreign listing	-0.042	0.105	-0.439	-0.087	0.627*	0.096	0.331	0.067	-0.413*
	(0.330)	(0.107)	(0.282)	(0.291)	(0.327)	(0.159)	(0.671)	(0.121)	(0.212)
Marketization index	-0.011	-0.025**	-0.019	-0.019	-0.119***	0.005	-0.164**	0.009	-0.014
	(0.039)	(0.011)	(0.033)	(0.039)	(0.040)	(0.027)	(0.077)	(0.017)	(0.014)
No. of CL questions	0.047**	0.009	-0.033**	0.040*	0.004	0.030*	-0.003	0.000	-0.014*
	(0.021)	(0.007)	(0.016)	(0.021)	(0.018)	(0.018)	(0.040)	(0.009)	(0.008)
Length of CL reply	-0.128	-0.055	0.074	-0.229	0.225	-0.071	-0.999***	-0.005	-0.021
	(0.165)	(0.056)	(0.153)	(0.155)	(0.184)	(0.087)	(0.332)	(0.086)	(0.091)
Constant	-3.759*	0.380	1.372	-3.699*	-2.480	1.621	1.259	1.111	-0.461
	(2.255)	(0.964)	(1.918)	(2.242)	(2.401)	(1.651)	(4.656)	(1.213)	(0.955)
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.096	0.049	0.454	0.108	0.132	0.101	0.512	0.044	0.088
N	912	912	912	912	912	912	912	912	912

Table 6. Changes in disclosure and firms' information environments

This table examines whether the CL review process results in any improvement in targeted firms' information environments. The sample consists of firms listed on the SSE over the period 2013-2018. The full sample of 929 CL recipients are the same as used in Table 5 Panels A and C. The dependent variable is *Bid-ask spread* and the key explanatory variables are the two interaction terms *CL × Major change in disclosure* and *CL × (1 – Major change in disclosure)*. Variable definitions are provided in Appendix B. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Variable	Bid-ask spread									
	Liquidity issues (1)	Results of operations (2)	Pro-forma financial information reporting issues (3)	Contingencies, commitment, and legal accounting issues (4)	Risk factors – competition and competitors (5)	Inventory, vendor, and/or cost of sales issues (6)	Accounts receivable and cash reporting issues (7)	Business overview issues (8)	PPE fixed assets issues (9)	All topics (10)
CL × Major change in disclosure	0.030	0.013	0.008	0.030	0.026	-0.007	0.017	0.011	0.004	0.019
	(0.021)	(0.021)	(0.018)	(0.021)	(0.020)	(0.021)	(0.020)	(0.021)	(0.020)	(0.022)
CL × (1 – Major change in disclosure)	0.024*	0.030**	0.032**	0.024*	0.025**	0.037***	0.029**	0.030**	0.033**	0.028**
	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.012)
Ln(market cap)	-0.058***	-0.058***	-0.058***	-0.058***	-0.058***	-0.059***	-0.058***	-0.058***	-0.058***	-0.058***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
M/B	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Leverage	0.020	0.020	0.019	0.020	0.020	0.021	0.020	0.021	0.020	0.020
	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)	(0.042)
Operating CF	-0.152***	-0.152***	-0.152***	-0.152***	-0.152***	-0.152***	-0.152***	-0.152***	-0.151***	-0.152***
	(0.054)	(0.054)	(0.054)	(0.054)	(0.054)	(0.054)	(0.054)	(0.054)	(0.054)	(0.054)
Institutional ownership	0.008	0.009	0.008	0.008	0.008	0.010	0.009	0.010	0.006	0.009
	(0.089)	(0.088)	(0.088)	(0.089)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)
SOE	-0.017	-0.017	-0.017	-0.017	-0.017	-0.020	-0.017	-0.016	-0.017	-0.017
	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)
Big 4	0.021	0.021	0.022	0.021	0.021	0.021	0.020	0.021	0.020	0.021
	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
Foreign listing	-0.054	-0.054	-0.054	-0.054	-0.054	-0.054	-0.054	-0.054	-0.054	-0.054
	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)	(0.058)
Marketization index	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005	-0.005
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Constant	2.247***	2.250***	2.250***	2.247***	2.246***	2.256***	2.253***	2.246***	2.245***	2.248***
	(0.275)	(0.275)	(0.275)	(0.275)	(0.275)	(0.275)	(0.275)	(0.275)	(0.275)	(0.275)
Firm fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.544	0.544	0.544	0.544	0.544	0.545	0.544	0.544	0.544	0.544
N	6,740	6,740	6,740	6,740	6,740	6,740	6,740	6,740	6,740	6,740

Table 7. The roles of firms' reporting incentives and regulators' enforcement incentives

This table examines whether there are any differences in targeted firms' price reactions, changes in disclosure, and information environments when we vary the level of firms' relational contracting or the level of regulators' political incentive. Panel A compares targeted firms' price reactions and changes in disclosure between firm-years with high relational contracting and firm-years with low relational contracting. Panel B examines whether the CL review process results in any improvement in targeted firms' information environments comparing firm-years with high relational contracting and firm-years with low relational contracting. The dependent variable is *Bid-ask spread*. Panel C compares targeted firms' price reactions and changes in disclosure between firm-years with high regulators' political incentive and firm-years with low regulators' political incentive. Panel D examines whether the CL review process results in any improvement in targeted firms' information environments comparing firm-years with high regulators' political incentive and firm-years with low regulators' political incentive. The dependent variable is *Bid-ask spread*. Variable definitions are provided in Appendix B. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Firms' relational contracting, price reactions, and changes in disclosure

	High relational contracting				Low relational contracting				Test of differences
	N	Mean	Median	Std. Dev.	N	Mean	Median	Std. Dev.	t-test
CAR (-2, +2)_ann	86	-0.037***	-0.032	0.062	493	-0.022***	-0.018	0.070	-0.015**
CAR (-2, +2)_reply	67	-0.012*	-0.008	0.058	318	-0.005*	-0.007	0.056	-0.007
Change in disclosure (All topics)	159	0.034***	0.026	0.063	753	0.027***	0.022	0.069	0.007

Panel B: Firms' relational contracting and information environments

Variable	Bid-ask spread	
	High relational contracting	Low relational contracting
	(1)	(2)
CL × Major change in disclosure	-0.052	0.026
	(0.052)	(0.025)
CL × (1 – Major change in disclosure)	0.095***	0.016
	(0.030)	(0.014)
Ln(market cap)	-0.037	-0.059***
	(0.034)	(0.013)
M/B	0.001	-0.002**
	(0.002)	(0.001)
Leverage	-0.104	0.051
	(0.094)	(0.052)
Operating CF	-0.140	-0.178***
	(0.133)	(0.061)
Institutional ownership	0.080	-0.034
	(0.338)	(0.095)

SOE	-0.103	-0.011
	(0.069)	(0.046)
Big 4	0.023	0.034
	(0.053)	(0.048)
Foreign listing	-0.064**	-0.018
	(0.032)	(0.092)
Marketization index	-0.003	-0.012
	(0.027)	(0.015)
Constant	1.841**	2.310***
	(0.785)	(0.316)
Firm fixed effects	YES	YES
Year fixed effects	YES	YES
R^2	0.587	0.558
N	907	5,833
F test for CL × (1 – Major change in disclosure)	0.017	

Panel C: Regulators' political incentive, targeted firms' price reactions, and changes in disclosure

	High political incentive				Low political incentive				Test of differences
	N	Mean	Median	Std. Dev.	N	Mean	Median	Std. Dev.	t-test
CAR (-2, +2)_ann	431	-0.027***	-0.021	0.071	148	-0.015*	-0.016	0.062	-0.013**
CAR (-2, +2)_reply	296	-0.007*	-0.008	0.057	89	-0.009	-0.012	0.054	0.002
Changes in disclosure (All topics)	643	0.022***	0.023	0.060	269	0.043***	0.023	0.082	-0.021***

Panel D: Regulators' political incentive and targeted firms' information environments

Variable	Bid-ask spread	
	High political incentive	Low political incentive
	(1)	(2)
CL × Major change in disclosure	0.023	0.127*
	(0.026)	(0.065)
CL × (1 – Major change in disclosure)	0.036**	0.004
	(0.015)	(0.036)
Ln(market cap)	-0.068***	-0.041*
	(0.013)	(0.023)
M/B	0.001	-0.002
	(0.001)	(0.002)
Leverage	-0.001	0.124

	(0.052)	(0.085)
Operating CF	-0.080	-0.220
	(0.061)	(0.146)
Institutional ownership	0.012	-0.087
	(0.113)	(0.182)
SOE	-0.037	-0.058
	(0.047)	(0.062)
Big 4	-0.027	0.118
	(0.038)	(0.087)
Foreign listing	-0.085	-0.035
	(0.055)	(0.088)
Marketization index	-0.021	0.013
	(0.018)	(0.022)
Constant	2.531***	1.867***
	(0.323)	(0.562)
Firm fixed effects	YES	YES
Year fixed effects	YES	YES
R2	0.488	0.661
N	4,497	2,243
F test for CL × (1 – Major change in disclosure)	0.409	

Internet Appendix for

"The Effects of a U.S. Approach to Enforcement: Evidence from China"

IA1. An example of CL conversation

Henan Oriental Silver Star Investment Co.

Stock Code: 600753 Stock Short Name: Oriental Silver Star

The Reply to the Shanghai Stock Exchange' s Comment Letter Regarding the 2013 Annual Report

The board of directors and all directors of the company guarantee that the content of this reply does not contain any false records or misleading statements or major omissions, and take the individual and joint responsibility for the reality, accuracy, and completeness of its content.

Recently, the company received the Shanghai Stock Exchange's comment letter, "Post-Examination Comment Letter Regarding Henan Oriental Silver Star Investment Co. 2013 Annual Report" ([2014] No. 0380). As per the Shanghai Stock Exchange' request, the company now responds to the matters raised in the letter and provides the following explanations:

1. In April, 2010, your company purchased 16 adjacent plots of land of 109,698.04 square meters (164.55 mu), located in Tianxian, Wanzhou District, Chongqing. The transaction company was with Chongqing Tianxian Lake Real Estate Co, a related party of your controlling shareholder Chongqing Silverstar Estate Co. The land purchase price was 159,604,200 RMB. The payment was fully paid in April 2010. Your company stated, due to the district government's adjustment of the Tianxian Lake' project planning, the conditions for completing the land transfer are temporarily unavailable. Therefore, as of December 31st, 2013, the relevant land property rights transfer has not been completed yet. Your company's financial report received qualified opinions several times due to the above matter. Please explain: (1) In addition to passively waiting for the district government's planning adjustments, the precautions and procedures your board of directors has taken to address the issue that the land cannot be transferred, and whether your company's ongoing asset restructuring considers any possible solution related to this issue; (2) Your company claimed that if your company's strategic adjustments or other reasons result in the cancellation of the land transaction, Tianxian Lake Real Estate Co will refund the prepayment as well as pay interest for the prepayment period. Please explain relevant agreement regarding interest payment.

Company's reply: During each audit period, the board of directors sent personnel together with our auditors to the Wanzhou District Planning, Land and Resources Department to inquire and learn more about relevant planning adjustments and land transfer status. At the same time under the company's board of directors supervision, the company has communicated with local government departments, and Tianxian Lake Real Estate Co has hired professional organizations to develop multiple versions of its development proposals and submitted to the relevant departments, in order to speed up the district government's planning adjustment process.

The company's ongoing asset restructuring involves an overall transformation of the company, whereas the purchase of land near Tianxian Lake was to expand the development projects of our

existing business in real estate. Therefore, if the restructuring is successful, the company will retreat from the real estate business. The land purchase deal will be cancelled, and the company will recover the land payment and interest on the payment by that time.

The "Supplementary Agreement" signed between our company and Tianxian Lake Real Estate Co stipulates that if the purchased land cannot be transferred, Tianxian Lake Real Estate Co will return the prepayment to the company as well as pay interest for the prepayment period at the bank deposit interest rate, in order to protect the interests of the company and its shareholders.

2. CITIC Securities Co. increased its holdings of 20,256,001 shares of your company in the current period, accounting for 15.83% of your company's total number of shares outstanding. Please verify the ultimate owners of the selling shareholders in this transaction, and notify them to perform their obligations to this change in ownership transaction in a timely manner.

Company's reply: Regarding the change in ownership transaction raised above, our shareholder Yushang Group has issued a written statement. The main content from its statement is as follows: "Due to the need of our business operation, Yushang Group has pledged shares of Henan Oriental Silver Star Investment Co, totaling 19,400,000 shares, to CITIC Securities, Shanghai on 26th November, 2013, to obtain credit. As of March 31st, 2014, the total number of shares held by Yushang Group in the company was 27,794,977, accounting for 21.71% of the company's total number of shares outstanding. Among the shareholders, Yushang Group Credit Transaction Guaranteed Account holds 19,400,000 shares of the company, accounting for 15.15% of the company's total number of shares outstanding; Yushang Group Securities Account holds 8,394,977 shares of the company, accounting for 6.56% of the company's total number of shares outstanding." Yushang Group's view is that because the above-mentioned shares are still held by Yushang Group, and the pledge is not being processed yet, Yushang Group has not yet disclosed any change of its ownership of our company's shares.

CITIC Securities Co. customer credit guarantee account increased its holding of the company's share by 20,256,001 in the current period, of which 19,400,000 shares were verified to be held by Yushang Group, and the remaining 856,001 shares were unaccounted for of their ultimate owners.

3. Please provide the names of the company's top five customers and associated transactions. Please provide contracts or other supporting documents.

Company's reply: The company's top five customers and associated major transactions are as follows:

Chongqing Jinjia Real Estate Co., transaction amount of 6,109,664.58 RMB. The transactions were mainly our sales of wires and cables, cable trays, steel-plastic composite winding pipes, elevators, diesel generator sets, etc.

Chongqing Haoqing Materials Co., transaction amount of 975,919.70 RMB. The transactions were mainly our sales of coiled boards.

Chongqing Boyao Decoration Engineering Co., transaction amount of 879,369.07 RMB. The transactions were mainly our sales of glass and building structures.

Chongqing Tianxian Lake Real Estate Co., transaction amount of 816,529.92 RMB. The transactions were mainly our sales of anti-theft doors.

Chongqing Fangyue Construction Engineering Co., transaction amount of 478,988.46 RMB. The transactions were mainly our sales of cement.

IA2. Implementing LDA analysis in Chinese

We download CL replies, annual reports, and amended annual reports from the websites of Shanghai Securities News (www.cnstock.com) and Securities Times (www.stcn.com). Our final sample for textual analysis consists of 929 CL replies, 929 CL-year's annual reports for which CLs were issued, and 912 annual reports for the year after CL receipts.[1] As far as we are aware, we are one of the first conducting textual analysis using CL replies and annual reports in Chinese. For replicability, we describe how we process documents in Chinese and train the LDA model.

1. Preprocessing CL replies

- Step 1: Convert CL replies in pdf to text using the Python package pdftotext (https://pypi.org/project/pdftotext/). Remove the header of each CLR.
    - Figures are removed, and text and numbers within tables are retained in this step.

- Step 2: Run the Chinese segmenter jieba (https://github.com/fxsjy/jieba) on the text file from Step 1 to convert sentences into words.[2] The default setting of jieba is used (i.e., jieba.cut() is called for segmentation).

- Step 3: Run Stanford CoreNLP ((https://stanfordnlp.github.io/CoreNLP/) on the text file from Step 1 to identify named entities.
    - Use the following command line:
      java -mx4g -cp "*" edu.stanford.nlp.pipeline.StanfordCoreNLP -props StanfordCoreNLP-chinese.properties -annotators tokenize,ssplit,pos,lemma,ner -outputFormat conll -file text.txt
      which will run tokenization, sentence splitting, pos tagging and named entity recognition jointly.
    - A list of named entities (PERSON, LOCATION, ORGANIZATION, MISC, MONEY, NUMBER, ORDINAL, PERCENT, DATE, TIME, DURATION, and SET) is generated.

- Step 4: Remove the following words from the output in Step 2:
    - Stop words:
        - Punctuation marks in Chinese, e.g., ?, !, and ¥.
        - Word lists from https://github.com/goto456/stopwords.
        - Words with a single Chinese character.
    - Any word starting with numbers (i.e., 0-9) or letters (i.e., a-z, A-Z).
    - Named entities from Step 3

[1] There are a number of reasons for us not having the same number of annual reports for the year after CL receipts: 1) six firms were either delisted from the SSE in the following year or delayed their annual report filings due to the COVID-19 pandemic; and 2) 11 firms have missing values for control variables in our regression analysis.
[2] Jieba is an open source Chinese parser with its initial corpus based on 1998 People's Daily and modern novels in Chinese. Over time, it adds the 2006 Edition of sogou dictionary and dict.txt (https://github.com/fxsjy/jieba/issues/7).

- Names of Chinese provinces, autonomous regions, cities, and counties, at https://zh.wikipedia.org/wiki/中华人民共和国县级以上行政区列表 https://zh.wikipedia.org/wiki/中华人民共和国城市列表
- Units of measure and ordinals
- Words showing up fewer than five times

2. Running LDA analysis

The goal of topic modeling is to automatically discover the topics from a collection of documents (in our first application, to identify issues raised in a set of CL replies). The documents themselves are observed, while the topic structure—the topics, per-document topic distributions, and per-document per-word topic assignments—is hidden structure.

The key computational challenge for topic modeling is using the observed documents to infer the hidden topic structure. LDA analysis relies on latent Dirichlet allocation in which all the documents in the collection share the same set of topics, but each document covers those topics in different proportions. To fit an LDA model, the researcher needs to specify only the total number of K topics, and the estimation routine produces two outputs: (i) word frequencies for each of the K topics, and (ii) frequencies with which the topics are covered in each document. If the number of topics is too many then some topics might be either duplicative or split narrowly into subtopics; and if the number is too few then some key topics might be omitted. Applying LDA analysis to CLs on prospectuses, Lowry et al. (2020) identify eight distinct topics. Applying LDA analysis to 10K filings, Brown, Crowley, and Elliott (2020) identify 31 topics.

To determine the appropriate number of interpretable topics in the set of CL replies, we measure the "perplexity" of the topic model (Blei, Ng, and Jordan 2003) – lower perplexity indicates that the model is a better fit for the observed data.[3] We also manually inspect the top words under each topic when the number of topics ranges from six to twelve. Figure IA1 in the Internet Appendix presents perplexity scores as we vary the number of topics when fitting different LDA models to the set of 929 CL replies. Based on both the ease of interpretability and Figure IA1, we conclude that the optimal number of topics in the set of CL replies is nine.

To label those nine topics, we take a multi-pronged approach. We start with an encompassing list of topics emphasized by the SSE through various press releases during our sample period and a list of topics from a pilot project in which we go over a subset of CL replies and classify the topics manually. Figure 2 presents the word cloud for each CLR topic.

We repeat LDA analysis to a sample of 929 CL-year's annual reports. Figure IA2 presents the perplexity score when we vary the number of topics in annual reports.[4] Based on both the

[3] The perplexity score is a function of the per-word likelihood and the number of words in each document, and decreases as the likelihood of the model increases, i.e., when the statistical fit improves.

[4] The reason for the U-shaped perplexity score plot is as follows. When we increase the number of topics, the LDA model gains more flexibility and power in fitting the data. This implies that if we train the model for a long enough time, allowing a larger number of topics is always more likely to result in a lower perplexity score. However, this comes at a cost of a much longer training time. For example, an LDA model with ten topics may give a perplexity

perplexity score and our manual inspection of top words for each topic, we conclude that the optimal number of topics in annual reports is 27.

LDA analysis provides us with not only clusters of topic words but also an estimate of the importance of each topic. Using CL replies as an example, for each firm, we have the document loading on a topic, i.e., the fraction of words devoted to addressing a particular issue raised by the SSE (see Table 5 Panel A).

Our LDA model is coded in C++ and estimated via Gibbs sampling. Our choices of the model's hyperparameters by default are: 0.1 for the prior of document-topic distribution, 0.01 for the prior of topic-word distribution. When estimating the model, we start the number of topics at 20, and the number of iterations by default at 300. Our code is available upon request.

3. Identifying common topics between CL replies and CL-year's annual reports

Regulatory objectives are achieved when targeted firms amend their annual reports in response to issues raised by regulators. Our methodology largely follows Lowry et al. (2020).

We first fit an LDA topic model to the set of 929 CL-year's annual reports, taking similar steps as those required to fit an LDA model to the set of CL replies. To select a topic in annual reports that corresponds to a topic in CL replies, we use KL-divergence (Kullback and Leibler 1951), which represents the amount of incremental information that a topic in CL replies adds, relative to that matched topic in annual reports. Specifically, we calculate the KL-divergence between a topic in CL replies and each of the 27 topics in annual reports, and the topic in annual reports with the minimum KL-divergence is the matched topic.[5]

To capture changes in disclosure relating to each CLR topic in the amended annual reports, we apply the same LDA model (fit to the set of CL-year's annual reports) to the set of 351 amended annual reports, focusing on those nine topics closest to the CLR topics by KL-divergence. Now we have two LDA outputs: the nine annual report topics closest to the CLR topics, and the nine amended annual report topics closest to the CLR topics, and their respective fraction of words in each of those topics. The change in disclosure is the fraction change in words on a specific topic between the two annual reports.

To capture changes in disclosure relating to each CLR topic in next-year's annual reports, we apply the same LDA model (obtained from fitting the set of CL-year's annual reports) to the set of 912 next-year's annual reports, focusing on those nine topics closest to the CLR topics by KL-divergence. We end up with nine next-year annual report topics closest to the nine CLR topics,

score of 300 in 30 minutes, while an LDA model with 100 topics may give a perplexity score of 50 at a cost of 5 hours. To provide a fair comparison across different LDA models with different numbers of topics, we use a fixed amount of training time, which results in the U-shaped perplexity score plot. We pick the optimum number of topics based on the lowest perplexity score.

[5] For each of the nine CLR topics (characterized as 9 vectors), we calculate the KL-divergence with each of the 27 annual report topics (analogously characterized as 27 vectors). Thus, we form an 9 x 27 matrix of KL-divergence measures, where the KL metric represents a measure of the incremental information in each CLR topic relative to each annual report topic.

and their respective fraction of words in each of those topics. If enforcement has any bite, one would expect targeted firms to improve their future disclosures in response to CLs, as predicted by both the market efficiency hypothesis (*H1b*) and the incongruency hypothesis (*H2b*).

References:

Brown, N.C., R.M. Crowley, and W.B. Elliott, 2020. What are you saying? Using topic to detect financial misreporting, *Journal of Accounting Research* 58 (1): 237–291.

Figure IA1. Perplexity by number of CLR topics

This figure plots the perplexity score by number of CLR topics. The formula for perplexity is from Blei et al. (2003). The sample consists of 929 CL replies made by firms listed on the SSE over the period 2013-2018.

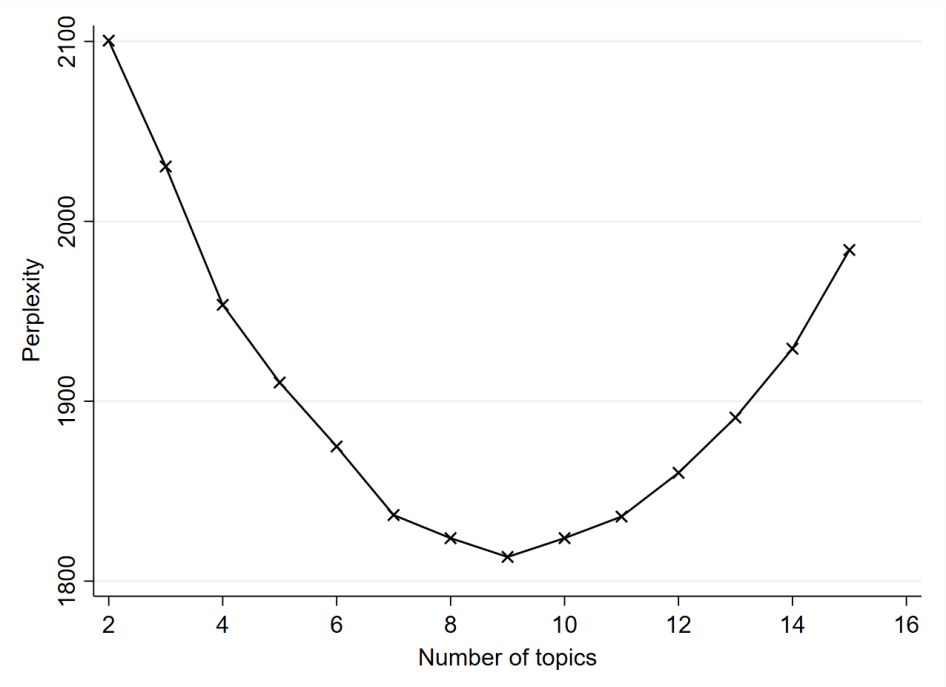


Figure IA2. Perplexity by number of CL-year annual report topics

This figure plots the perplexity score by number of CL-year annual report topics. The formula for perplexity is from Blei et al. (2003). The sample consists of 929 CL-year annual reports of firms listed on the SSE over the period 2013-2018.

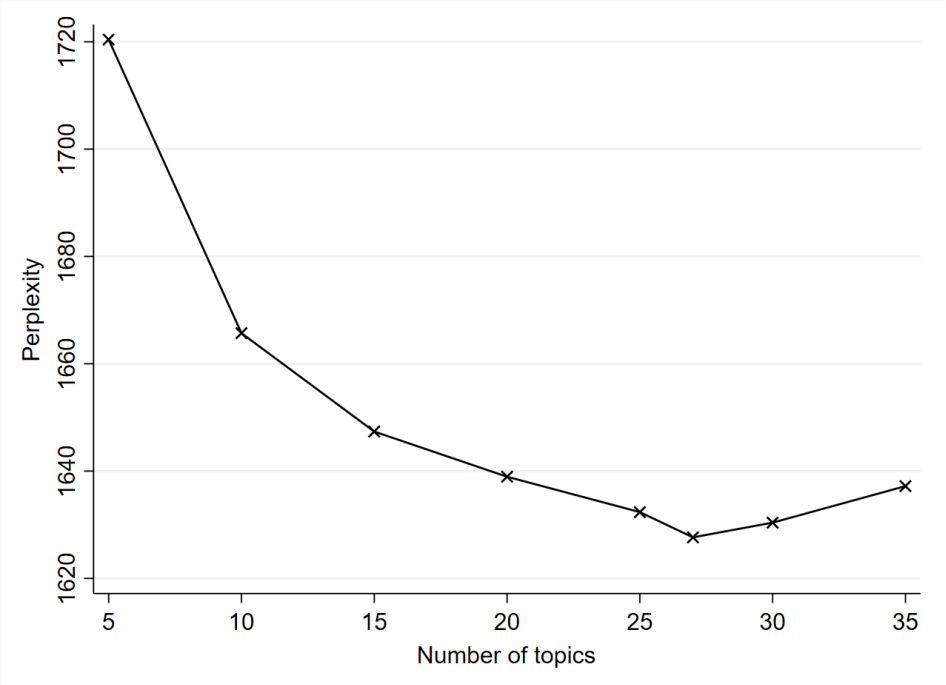


Table IA1. Determinants of CL receipts and characteristics: Robustness checks

This table conducts robustness checks on Table 3 by using an alternative measure of institutional ownership – *QFII/MF ownership*. Variable definitions are provided in Appendix B. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Variable	CL	Number of CL pages	Number of CL questions
	(1)	(2)	(3)
Internal control weakness	0.167**	0.189**	0.154**
	(0.084)	(0.077)	(0.070)
High volatility	0.147*	0.072	0.084
	(0.089)	(0.078)	(0.073)
Prior year stock return	-0.088	-0.092	-0.062
	(0.093)	(0.099)	(0.087)
Ln(market cap)	-0.006	0.085*	0.069
	(0.054)	(0.048)	(0.045)
Small positive ΔEPS	0.525**	0.402**	0.422**
	(0.209)	(0.200)	(0.176)
Modified audit opinion	0.634***	0.403***	0.401***
	(0.164)	(0.128)	(0.123)
Big 4	-0.413**	-0.566***	-0.415**
	(0.200)	(0.203)	(0.187)
Auditor tenure	0.005	0.008	0.003
	(0.007)	(0.007)	(0.007)
Auditor turnover	0.328**	0.334***	0.275**
	(0.143)	(0.118)	(0.110)
CEO/COB duality	0.133	0.140	0.091
	(0.103)	(0.088)	(0.085)
Board independence	-0.352	-0.588	-0.438
	(0.969)	(0.837)	(0.776)
Board size	-0.054*	-0.026	-0.032
	(0.028)	(0.028)	(0.025)
QFII/MF ownership	-4.316***	-3.590**	-3.256**
	(1.325)	(1.562)	(1.360)
Management ownership	-1.099**	-0.907***	-0.991***
	(0.433)	(0.334)	(0.329)
SOE	-0.528***	-0.537***	-0.460***
	(0.092)	(0.091)	(0.085)
Firm age	0.042***	0.034***	0.034***
	(0.009)	(0.010)	(0.009)
Loss	1.077***	0.950***	0.913***
	(0.116)	(0.103)	(0.094)
Special treatment	-0.194	-0.409**	-0.336**
	(0.211)	(0.160)	(0.161)
Sales growth	0.153	0.124	0.153*
	(0.102)	(0.082)	(0.081)
M&A	0.403***	0.397***	0.393***
	(0.145)	(0.123)	(0.120)
Related party transaction	7.307***	4.836***	4.878***
	(1.149)	(0.810)	(0.752)
Loan guarantee	0.413***	0.336***	0.373***
	(0.121)	(0.088)	(0.080)
Foreign listing	0.013	-0.130	-0.123
	(0.173)	(0.188)	(0.155)
Marketization index	-0.134***	-0.129***	-0.117***

	(0.021)	(0.020)	(0.018)
Constant	-1.985	-6.956***	-1.779*
	(1.236)	(1.317)	(1.075)
Industry fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES
Pseudo R^2	0.122	0.265	0.178
N	6,881	6,656	6,856

Table IA2. Price reactions to CL receipts: Robustness checks

This table conducts robustness checks on Table 4 by using the market model to estimate daily abnormal returns. The sample consists of 520 announcements made by 400 SSE-listed firms over the period 2015-2018. We estimate the market model over 122 trading days ending prior to the event window. Daily abnormal return is the difference between raw return and fitted return from the estimated market model. *CAR (-2, +2)_ann_market model* is cumulative five-day abnormal daily returns centered around the CL announcement day (day 0). *CAR (-2, +2)_reply_market model* is cumulative five-day abnormal daily returns centered around the CL reply day (day 0). Panel A presents descriptive statistics of the two announcement period abnormal returns. Panel B presents OLS regression results when the dependent variable is *CAR (-2, +2)_ann_market model* and *CAR (-2, +2)_reply_market model*. Variable definitions are provided in Appendix B. Standard errors clustered at the CL announcement date level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Descriptive statistics of *CAR (-2, +2)_ann_market model*

	N	Mean	Median	Std.Dev
CAR (-2, +2)_ann_market model	520	-0.023***	-0.018	0.068
CAR (-2, +2)_reply_market model	356	-0.005*	-0.007	0.054

Panel B: Explaining *CAR (-2, +2)_ann_market model* and *CAR (-2, +2)_reply_market model*

Variable	CAR (-2, +2)_ann_market model		CAR (-2, +2)_reply_market model
	(1)	(2)	(3)
Number of CL pages	-0.005***		
	(0.002)		
Number of CL questions		-0.001**	
		(0.001)	
Length of CL reply			-0.011**
			(0.005)
Ln (market cap)	0.004	0.004	-0.003
	(0.005)	(0.005)	(0.005)
M/B	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Leverage	-0.036*	-0.038*	0.003
	(0.020)	(0.019)	(0.014)
Operating CF	0.025	0.026	0.063*
	(0.035)	(0.036)	(0.037)
Institutional ownership	-0.028	-0.034	0.045
	(0.049)	(0.050)	(0.047)
SOE	0.014*	0.015**	-0.002
	(0.007)	(0.007)	(0.008)
Loss	0.006	0.005	0.012*
	(0.008)	(0.009)	(0.007)
Big4	0.009	0.011	-0.001
	(0.014)	(0.015)	(0.012)
Foreign listing	-0.013	-0.014	0.002
	(0.010)	(0.010)	(0.018)
Marketization index	-0.001	-0.001	-0.004***
	(0.002)	(0.002)	(0.001)
Constant	-0.115	-0.111	0.092
	(0.107)	(0.109)	(0.115)
Industry fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES
R^2	0.089	0.083	0.087
N	520	520	356

Table IA3. Price reactions to CL receipts: Additional investigation

This table examines price reactions to CL announcements. Panel A presents daily price reactions over an 11-day period centered around the CL announcement day (day 0). Panel B presents price reactions to first letter and subsequent letter(s). Variable definitions are provided in Appendix B. Standard errors clustered at the CL announcement date level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Price reaction to CL announcements

Trading day	N	Mean	Median	Std. Dev.
-5	579	-0.001	-0.002	0.030
-4	579	-0.002	-0.003	0.028
-3	579	-0.001	-0.002	0.025
-2	579	-0.005***	-0.005	0.023
-1	579	-0.004***	-0.004	0.027
0	579	-0.010***	-0.007	0.031
+1	579	-0.003*	-0.004	0.028
+2	579	-0.003*	-0.003	0.028
+3	579	-0.002	-0.002	0.025
+4	579	-0.001	-0.002	0.024
+5	579	-0.002	-0.002	0.026

Panel B: Price reactions to first letter and subsequent letter(s)

Event window	N	Mean	Median	Std. Dev.
CAR (-2, +2)_ann_first	394	-0.018***	-0.016	0.064
CAR (-2, +2)_ann_subsequent	185	-0.039***	-0.025	0.077

Table IA4. Changes in disclosure in amended and next-year's annual reports: Robustness checks

This table conducts robustness checks on Table 5 by focusing on the three annual report topics that match most or least closely to one of the CLR topics. Using LDA analysis, nine topics are extracted from the set of 929 CL replies, and twenty-seven topics are extracted from the set of 929 CL-year's annual reports. To find the three topics in CL-year's annual reports that most (least) closely match each of the nine CLR topics, we employ KL-divergence. Panel A (B) examines changes in disclosure in amended annual reports on the three topics that matches most (least) closely to the CLR topic. Each column presents the OLS regression results where the dependent variable is the change in disclosures from CL-year's annual report to amended annual report on one of the nine CLR topics, and the key explanatory variable is the fraction of words in the same CLR topic. Panel C (D) examines changes in disclosure in next-year's annual reports on the three topics that matches most (least) closely to the CLR topic. Each column presents the OLS regression results where the dependent variable is the change in disclosures from CL-year's annual report to next-year's annual report on one of the nine CLR topics, and the key explanatory variable is the fraction of words in the same CLR topic. All other control variables are the same as in Table 6. Variable definitions are provided in Appendix B. Standard errors clustered at the firm level are reported in parentheses. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Changes in disclosures in amended annual reports (Top three matched topics)

	Liquidity issues	Results of operations	Pro-forma financial information reporting issues	Contingencies, commitment, and legal accounting issues	Risk factors – competition and competitors	Inventory, vendor, and/or cost of sales issues	Accounts receivable and cash reporting issues	Business overview issues	PPE fixed assets issues
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CLR topic	0.035***	0.017***	-0.004	0.023***	0.060***	0.029***	0.003	0.015***	0.009
	(0.009)	(0.006)	(0.006)	(0.008)	(0.012)	(0.010)	(0.008)	(0.004)	(0.008)
Constant	1.251	1.617	-3.070	0.784	-2.122	1.253	-1.180	1.135	0.114
	(3.772)	(1.234)	(2.021)	(1.522)	(2.851)	(1.853)	(4.232)	(0.862)	(1.129)
Control variables	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.168	0.141	0.140	0.135	0.445	0.309	0.099	0.245	0.231
N	351	351	351	351	351	351	351	351	351

Panel B: Changes in disclosures in amended annual reports (Bottom three matched topics)

	Liquidity issues	Results of operations	Pro-forma financial information reporting issues	Contingencies, commitment, and legal accounting issues	Risk factors – competition and competitors	Inventory, vendor, and/or cost of sales issues	Accounts receivable and cash reporting issues	Business overview issues	PPE fixed assets issues
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CLR topic	-0.000	-0.010	-0.004***	0.005	-0.036***	-0.004	-0.000	-0.001	-0.001
	(0.002)	(0.012)	(0.001)	(0.004)	(0.014)	(0.005)	(0.002)	(0.003)	(0.005)
Constant	0.421	0.549	0.970	-0.266	-0.166	3.870	-3.816*	-3.166	1.580

	(1.022)	(3.842)	(0.835)	(1.301)	(3.813)	(4.060)	(2.096)	(2.254)	(2.268)
Control variables	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.106	0.086	0.170	0.149	0.266	0.093	0.306	0.293	0.134
N	351	351	351	351	351	351	351	351	351

Panel C: Changes in disclosures in next-year's annual reports (Top three matched topics)

Variable	Liquidity issues (1)	Results of operations (2)	Pro-forma financial information reporting issues (3)	Contingencies, commitment, and legal accounting issues (4)	Risk factors – competition and competitors (5)	Inventory, vendor, and/or cost of sales issues (6)	Accounts receivable and cash reporting issues (7)	Business overview issues (8)	PPE fixed assets issues (9)
CLR topic	0.015	-0.003	-0.004	0.037**	0.009	0.014	-0.019	-0.005	-0.008
	(0.011)	(0.006)	(0.010)	(0.016)	(0.012)	(0.009)	(0.013)	(0.005)	(0.008)
Constant	-5.494	1.238	0.737	-12.205***	0.543	1.761	-5.348	-0.049	3.355
	(4.870)	(1.772)	(2.258)	(3.661)	(3.372)	(2.061)	(5.208)	(1.826)	(3.450)
Control variables	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.448	0.052	0.386	0.762	0.133	0.107	0.182	0.090	0.066
N	912	912	912	912	912	912	912	912	912

Panel D: Changes in disclosures in next-year's annual reports (Bottom three matched topics)

	Liquidity issues (1)	Results of operations (2)	Pro-forma financial information reporting issues (3)	Contingencies, commitment, and legal accounting issues (4)	Risk factors – competition and competitors (5)	Inventory, vendor, and/or cost of sales issues (6)	Accounts receivable and cash reporting issues (7)	Business overview issues (8)	PPE fixed assets issues (9)
CLR topic	-0.002	-0.006	-0.000	0.000	-0.007	-0.009	0.005	-0.008	0.003
	(0.002)	(0.012)	(0.004)	(0.005)	(0.016)	(0.011)	(0.004)	(0.005)	(0.005)
Constant	-0.622	-1.638	4.359	4.751	4.246	1.474	6.064	4.489	1.964
	(1.494)	(6.079)	(3.327)	(3.464)	(5.406)	(6.922)	(3.732)	(4.364)	(2.223)
Control variables	YES	YES	YES	YES	YES	YES	YES	YES	YES
Industry fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
R^2	0.066	0.098	0.069	0.079	0.287	0.157	0.072	0.065	0.098
N	912	912	912	912	912	912	912	912	912

Table IA5. The roles of firms' reporting incentives and regulators' enforcement incentives

This table examines whether there are any differences in targeted firms' length of CL reply, likelihood of CL-triggered restatement, and likelihood of receiving another CL when we vary the level of firms' relational contracting or the level of regulators' political incentive. Panel A compares targeted firms' length of CL reply, likelihood of CL-triggered restatement, and likelihood of receiving another CL between firm-years with high relational contracting and firm-years with low relational contracting. Panel B compares targeted firms' length of CL reply, likelihood of CL-triggered restatement, and likelihood of receiving another CL between firm-years with high regulators' political incentive and firm-years with low regulators' political incentive. Variable definitions are provided in Appendix B. ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Firms' relational contracting, length of CL reply, likelihood of CL-triggered restatement, and likelihood of receiving another CL

	High relational contracting				Low relational contracting				Test of differences
	N	Mean	Median	Std. Dev.	N	Mean	Median	Std. Dev.	t-test
Length of CL reply	159	1.727***	1.719	0.553	753	1.833***	1.867	0.520	-0.106**
CL-triggered amendment	173	0.341***	0.000	0.475	800	0.454***	0.000	0.498	-0.113***
Repeated CLs	94	0.755***	0.000	0.958	496	0.629***	0.000	0.923	0.126

Panel B: Regulators' political incentive, targeted firms' length of CL reply, likelihood of CL-triggered restatement, and likelihood of receiving another CL

	High political incentive				Low political incentive				Test of differences
	N	Mean	Median	Std. Dev.	N	Mean	Median	Std. Dev.	t-test
Length of CL reply	643	1.813***	1.842	0.532	269	1.820***	1.831	0.517	-0.007
CL-triggered amendment	673	0.391***	0.000	0.488	300	0.530***	1.000	0.500	-0.139***
Repeated CLs	387	0.556***	0.000	0.823	203	0.828***	0.000	1.083	-0.272***