Panda Games: Corporate Disclosure in the Eclipse of Search*

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Abstract

We show that firms strategically alter their disclosure behaviors when the channel to transmit information is severed. We conduct textual analysis and exploit an exogenous event—Google's 2010 surprising withdrawal from mainland China, which significantly hampers domestic investors' ability to access foreign information. Following Google's exit, Chinese firms' announcements on their foreign transactions become more bullish in comparison to similar announcements prior to the exit and to those that involve only domestic transactions. This effect is mitigated in the presence of foreign investors or analysts affiliated with foreign brokers, who are not subject to foreign information censorship by the Chinese government. Moreover, firms with existing foreign operations issue rosier annual reports and more likely manage their earnings upwards after Google's departure. A more optimistic announcement or annual report allows insiders to sell more shares at a higher price.

Keywords: Strategic disclosure, textual analysis, tone management, Google
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Panda Games: Corporate Disclosure in the Eclipse of Search

1. Introduction

This paper studies how firms adjust their disclosure strategies depending on the efficiency (or lack thereof) of information transmission in capital markets. We explore a natural experiment where, for exogenous reasons, a neutral channel to disseminate certain types of firm-specific information is severed. The natural experiment is Google's surprising departure from mainland China in 2010. At that time, Google and Baidu, a Google-like domestic search engine, dominated internet search in China. Due to the localized nature of search engines, Baidu lags behind Google in search quality especially when a search involves foreign information. Following the discovery of a large-scale cyberattack originating from China, Google announced its withdrawal from the mainland market on March 23, 2010, stopping censoring internet search results as required by local law and moving its search engine offshore. Since then, search capability via Google search sites in all languages was blocked in mainland China.

Google's abrupt pull out from mainland China has been generally viewed as driven by political reasons. Nevertheless, in a market where the institutions to supply credible information are weak and limited, the termination of its operation significantly hinders domestic investors' ability to access foreign information. In order to use Google, one has to either rely on slower, costly, and often unstable virtual private networks (VPNs), or physically travel outside mainland China. This exogenous variation in the search cost for foreign information makes it possible to study managers' opportunistic disclosure behavior in response to the shunting of the flow of information.

To explore how firms alter their disclosure strategies following a rising barrier to disseminate information in capital markets, we compile and analyze a sample of press releases

issued by publicly traded companies in mainland China. As a part of the 2007 accounting reforms, the China Securities Regulatory Commission (CSRC) mandated public disclosure by listed companies when they engage in any events it considers as "material". We restrict our attention to such mandatory disclosures, and distinguish between corporate events involving foreign transactions (such as investment in foreign countries or borrowing from foreign financiers) and those that are exclusively domestic.

To capture the extent of the optimism in mandated disclosures, we measure the tone (Huang, Teoh, and Zhang 2014) and sentiment (Loughran and McDonald 2011) in each corporate press release. Our textual analysis reveals that, following Google's departure from mainland China, optimism in press releases issued by Chinese firms rises significantly only if the announcements involve foreign events. By contrast, both the tone and sentiment in a press release remain unchanged if only domestic operations are presented. These findings provide causal evidence that firms manipulate the rhetoric in their disclosure precisely concerning the type of information that investors can no longer easily access and validate.

Though Google's departure and the institutional environment in mainland China provide an arguably clean setting to identify the crucial effect of dissemination efficiency on investors' information sets, endogeneity can still be a concern. Omitted factors that simultaneously occur at the time of the exit and affect the tone and sentiment in corporate disclosures may confound our findings. Self-selection may also be at play. We perform a number of tests to address these issues.

First, in all of our tests, we control for firm, event, and year fixed effects to take into account that unobserved firm-specific, event-specific, and time-specific factors may explain our findings. More importantly, when constructing our sample of corporate press releases, we require a sample firm to have issued at least one mandated press release both before and after Google's

exit. As such, the control sample includes not only press releases from firms that have never engaged in foreign operations or transactions during our sample period, but also firms that have disclosed their foreign events at a different time, as well as announcements involving foreign events and domestic events from the same firm.

Second, we show that the effect of Google's exit on disclosure optimism is mitigated in the presence of foreign investors, or if the firm is covered by financial analysts affiliated with foreign brokerage houses, who are not subject to the censorship of foreign information by the Chinese government. The exit effect is also more pronounced among firms whose shares are largely held by retail investors, who presumably rely more on search engines to access information (Da, Engelberg, and Gao 2011). These findings imply that firms modify their disclosure strategically only when investors lack alternative venues to ascertain firm-specific foreign information in the absence of Google search.

The above cross-sectional tests lend further credence to our causal inferences of the effect of costly access to information on biases in corporate disclosure. While it is possible that some omitted variables drive the documented results, it is difficult to conceive of an omitted variable that biases our results equally along all dimensions, in firms whose shareholders include or exclude foreign investors, firms that are covered by analysts affiliated with or without foreign brokers, and firms whose investor bases consist more or less retail investors. The differential effects of Google's exit on disclosure strategies along these dimensions alleviate the identification concern to some extent, as our results are unlikely to be entirely driven by firms endogenously selecting to invest more profitable foreign projects that lead to more optimistic disclosures.

Third, our estimates allow for a causal interpretation of the empirical evidence as long as the tone and sentiment in corporate press releases regarding foreign events did not behave differently than those concerning domestic events before Google's exit. In the first placebo test, we follow Leary and Roberts (2014) and randomly select a date during the sample period as the (pseudo) date for Google's exit. We then repeat our estimations 200 times using these pseudo exit dates and compare the observed coefficients for the key variables in our baseline test with those from randomized placebo samples. In the second placebo test, we examine whether the tone and sentiment in corporate disclosure regarding foreign event already exhibited different trends before the actual exit. Again, we find evidence consistent with Google's exit having an effect on optimism in corporate disclosure only when it is about a foreign event.

Finally, we extend the analysis to annual reports of public traded companies. Importantly for our identification, annual reports differ from corporate press releases in that the timing of the release of an annual report is exogenous and the content is not driven by any particular corporate event, which may arise endogenously. In particular, we focus on disclosures through the Management's Discussion and Analysis (MD&A) of the firm's performance that are designed to bring investors' expectation in line with that of the management. Also in this context, we find that the tone in annual reports becomes more positive, and sentiment is higher, following Google's withdrawal only among firms that have foreign operations.

In the last part of the analysis, we explore the welfare consequences of a bullish disclosure on events about which investors can no longer easily acquire information and validate. As the misinformation in disclosure rises, earnings quality—measured by low accrual-based earnings management—declines significantly. In addition to more aggressive earnings management, insiders sell more shares and earn higher returns during the announcement period

when press releases about foreign events or annual reports from firms with foreign operations become more optimistic.

Overall, we provide causal evidence consistent with the notion that firms distort their disclosure to take advantage of the weakened information environment. Our results indicate that the efficiency of transmission technologies imposes a potential constraint on manipulation by firms, and thus plays an important function in facilitating investors' information production. Our findings also highlight the urgency of developing formal institutions to improve transparency in the emerging markets.

This paper contributes to a growing literature in finance examining the role of information intermediaries. For example, researchers have documented the real outcomes of business news media and financial analysts.[1] In particular, several papers show that the interruption of the printing and delivery of news media affect information asymmetry, return volatility and local trading (Engelberg and Parsons 2011; Peress 2014; Koudijs 2014 and 2015). Instead of asset pricing, we focus on corporate disclosure and explore how managers take advantage of the disruption of information flow through managing the rhetoric in press releases and insider trading. In this respect, our paper is related to one strand of the literature documenting firms' strategic management on news media (Solomon and Soltes 2012; Ahern and Sosyura 2014; Yermack 2014; Baloria and Heese 2017) and in response to events that exogenously affect information production by financial analysts (Balakrishnan et al. 2014), such as brokerage house mergers (Hong and Kacperczyk 2010). We instead use Google's China exit

[1] For the role of news media, see, for instance, Barber and Odean (2008), Dyck, Volchkova and Zingales (2008), Bushee et al. (2010), Dyck, Morse, and Zingales (2010), Engelberg and Parsons (2011), Dougal et al. (2012), and Peress (2014). For the role of financial analysts, see Brennan and Subrahmanyam (1995), Womack (1996), Hong, Lim, and Stein (2000), Barber et al. (2001), Irvine (2003), Yu (2008), and Chen, Harford, and Lin (2015).

as a controlled experiment to identify and evaluate the efficiency of information dissemination, rather than production, in shaping corporate disclosure strategies.

The rest of the paper is organized as follows. Section 2 describes the research design and data. Section 3 reports the main results based on corporate press releases. Section 4 extends the analysis to annual reports. Section 5 examines the welfare consequences of bullish disclosure. Section 6 discusses additional robustness tests. Section 7 concludes. Variable definitions are in Appendix A.

2. Research Design

China as a research setting offers several advantages. First, unlike the United States, where a great majority of transactions in securities markets occur among institutional investors, the Chinese stock market has long been populated by retail investors. By the end of 2014, China had more than 72 million retail investors, accounting for 75% of trade on domestic stock exchanges. Since internet searches are more likely to come from retail investors (Da, Engelberg, and Gao 2011), China provides an institutional environment that is more suitable for our research question.

Second, the lack of formal institutions to supply credible information and internet censorship in China prevent investors from easily locating alternatives to substitute for searching for foreign information after Google's retreat.[2] By design, we are able to isolate investors' access to a component of firm-specific information that is relatively less correlated with other sources of

[2] In addition to the lack of development of formal institutions in the financial market such as sophisticated institutional investors and analysts, foreign investors and foreign-owned news media, which offer domestic investors' alternative access to foreign information, face a significantly high barrier to enter China. For instance, foreign investors are subject to a quota system in order to be able to trade shares of domestic firms. Limited foreign newspapers and TV channels are only available at selected premium hotels, which are mostly designed to cater to international travelers. China also imposes an internet censorship policy, as discussed further in Section 2.1.

firm-specific information. Consequently, the effect we document is less subject to the compounding effects that are typical in this type of studies.

Lastly, Google's retreat from China is largely driven by political concerns. Put differently, it is unlikely that disclosure practices by Chinese firms played a significant role in determining Google's exit decision. Due to the duopoly and localization nature of the search engines in China, investors are forced to switch to a domestic alternative with inferior search quality following Google's exit. This experiment allows us to identify the shift in information flow and the direct response in corporate disclosure.

2.1. The Great Firewall and Search Engines in China

China was officially recognized as a country accessible to internet in 1994. Since then, the number of Chinese internet users has exploded. In 2007, more than 211 million individuals in China could access internet at home, accounting for 16% of the population. By the first half of 2016, this number grew to more than 721 million, or 52.2% of the country's population and 21.1% of the world internet users.[3] Along with the fast expansion of individuals able to access and use internet, the Chinese government has engaged various legislative and technical actions to maintain strict control over the internet domestically. Bulwarked by the "Great Firewall", these regulations include blocking selected websites, ISP, and gateway connections, filtering key words out of searches initiated from computers located in China, demanding local storage of the collected data, requiring user registration record at retail businesses such as internet cafes, and censoring politically or morally sensitive contents posted online.[4] Furthermore, the government

[3] Source: Internet Live Stats, based on elaboration of data by International Telecommunication Union, World Bank, and United Nations Population Division.

[4] "The Great Firewall of China", January 6, 1997, Wired Magazine, and "How does China censor the internet?", April 22, 2013, The Economist.

mandates that domestic and foreign internet companies doing business in mainland China cooperate with its Great Firewall efforts.

In 2006, Google officially entered the mainland China market with a local search engine Google.cn, after agreeing to abide by China's censorship rules. Prior to 2006, the search engine market in China was monopolized by Baidu, a Google-like search engine that has been publicly traded on NASDAQ since 2005. Since then, Google's market share steadily increased, reaching one third of China's market for internet searches in 2009.[5] In comparison, as of January 2010, Baidu controlled 63% of China's market share. The search engine market in China had become a duopoly.[6]

In many ways, Google and Baidu shared common ground. Both focus on internet search business and operate their own proprietary search algorithms. Both generate revenue via paid advertising platforms, provide their own webmaster and keyword analysis tools, and use geo-targeting to generate more relevant query results for users.[7]

However, the two differ significantly in that by providing internet searches globally, Google ranks the quality of the content without any bias in its search. On the other hand, Baidu primarily serves the Chinese market and ranks Chinese language content higher. In fact, many analysts have attributed Baidu's leading position in the Chinese market to a combination of factors, including a keen understanding of local tastes. While Google executives insisted they

[5] "China Clamps Down on Web, Pinching Companies Like Google", September 21, 2014, New York Times.

[6] While Yahoo entered in this market prior to Google, it took on a different strategy, at least in Asia. Instead of a search engine, it was marketed primarily as a portal site that aggregates various information sources. In addition, Yahoo China was sold to a local company, Alibaba, prior to Google's exit. Microsoft's Bing entered mainland China in June 2013, near the end of the sample period, in a time when Baidu had already further strengthened its dominance in China.

[7] One prominent feature of search engines is localization ("international search engine optimization", or SEO). In order to help advertisers to connect to a location using the words, terms, and behaviors of an audience a particular region (i.e., geo-targeting). Rather than simply using a generic search term, search engines use the terminology and language of the target audience.

had better technology, Baidu countered that it had local expertise.[8] For these reasons, it has become a general consensus among Chinese web users to use Baidu to search for local (Chinese-based) information, and to use Google for non-local information.[9]

The two firms also differ in their focus on search quality. While Google ranks quality content and inbound link quality higher compared to quantity when a search is executed, Baidu does not have a very strong quality content requirement, ranking high on both inbound link quantity and quality. Baidu also gravitates more towards a "commercial search", allowing brands to pay highly to display at the top of the search results. As such, highly profitable keywords rank higher rather than organic search. Lastly, by focusing primarily on the mainland Chinese market and search in Chinese language, Baidu lags behind Google in search quality especially for foreign information.[10]

2.2. Google's 2010 Exit

On January 12, 2010, Google publicly announced discovery of a large-scale cyberattack originating from China which occurred in late 2009 that it believed was aimed at gathering information on Chinese human rights activists as well as plundering its intellectual property. As a result, it was "no longer willing to continue censoring" results on Google.cn and threatened to shut down its China operation. Shortly after the announcement, many politically sensitive searches, including the 1989 Tiananmen Square political movement, became available for ordinary Chinese web surfers.

[8] "Baidu's Gain from Departure Could Be China's Loss", January 13, 2010, New York Times.
[9] See related discussion at https://www.quora.com/Why-has-Baidu-rather-than-Google-succeeded-in-China. The Chinese netizens have adapted a famous phrase from the Three Kingdoms, one of the four classic Chinese literature novels, that (the king should) "consult with Zhao Zhang for internal affairs, and Yu Zhou for foreign affairs", to describe their search engine preferences: "Consult with Baidu for internal affairs, and Google for external affairs".
[10] "Frustrated Chinese web users bemoan Baidu and pine for the days of Google", August 19, 2014, Quartz.

Google's action was viewed as a public challenge to the authority of the Chinese government, in a country that has long treasured "saving face" and preferring under-the-table private negotiations to iron out differences, being political, economic, or ideological. The situation further deteriorated after Google's announcement attracted widespread media coverage. Consequently, responses from the Chinese government were unusually fierce and swift.[11]

On March 23, 2010, Google began its partial withdrawal from the China market by stopping censoring internet search results as required by local law and moving its search engine for Chinese web users offshore. Internet users who typed in the search engine's address were redirected to one based in Hong Kong, where the government doesn't censor Web browsing.

The highly publicized event further antagonized the Chinese government. Shortly after Google's pull out from China, the mainland users' access to Hong Kong's search site was also blocked.

On March 30, 2010, searching via all Google search sites in all languages was banned in mainland China. Any attempt to search using Google resulted in a DNS error. On June 30, 2010, Google ended the automatic redirect of Google China to Google Hong Kong. Google search has now continued to be blocked in China since its departure from the mainland.[12]

Figure 1 plots the change in market share between Google and Baidu during the sample period.[13] It is evident that Google's market share in mainland China plunged after 2010, while Baidu has seen a sharp rise in its market share. An independent source, Analysys International,

[11] "Google angers China by shifting service to Hong Kong", March 23, 2010, The Guardian.

[12] At the time there were a few exceptions: Google search remained available within certain foreign-operated businesses with pre-negotiated deals, such as a small group of selected high-end hotels catering to international business travelers and owning their own internet cables. However, towards the end of our sample period, even these businesses lost their ability to offer Google services. Accessing Google is also possible for highly selected government agencies and via VPNs.

[13] Source: China Internet Network Information Center's (CNNIC) Statistic Report on Internet Development in China, 2007-2014.

estimates that Google's market share in China dropped from 2010's 29% to 5% in 2012 and then 1.7% in 2013.

Google's exit from mainland China has been widely viewed as being driven by political reasons; it was not designed to cater to disclosure practices of Chinese listed firms. Put differently, it is highly unlikely that financial reporting of Chinese domestic firms regarding their foreign operations or transactions played a significant role in determining Google's exit decision.

2.3 Validation Experiment

Due to the unknown nature of their identity and choice of search engine, it is empirically challenging to verify that Chinese investors prefer Google over Baidu when searching information about foreign events by Chinese firms. More importantly, the announcement of a corporate event itself can be endogenous, attracting investors' attention and search volumes (Drake, Roulstone, and Thornock 2012). The content of the news can be firm- and time-specific, making it difficult to compare over time. With investor base and investor demand for firm-specific information varying across firms and over time, it is difficult to systematically trace investors' preference for search engines over the nature of information.

To validate that Chinese investors in general favor Google for non-local information, we provide an out-of-sample illustration as follows. We identify a (neutral) international major event that involves foreign information and whose schedule is set exogenously. The event has to generate mass attention among individual Chinese, rather than stimulate interest only among a specific group of individuals. The event is thus likely to be representative of the internet search behavior of the general population.

Since attention leads to desire and search for information, we compare the aggregate search frequency in Google and the search volume index of Baidu for the search term "奥运会",

which is “Olympic Games” in simplified Chinese. Simplified Chinese is exclusively used by individuals from mainland China. Therefore, search for this term presumably most likely comes from individuals from mainland China.[14]

Google makes the Search Volume Index (SVI) of search terms public via its Google Trends product (http://www.google.com/trends). Google computes a search term’s weekly SVI by scaling the number of searches for that term by its time-series average. For a longer-horizon such as our sample period, a search term’s SVI is available on a monthly basis.

Baidu provides its own search trend index (http://index.baidu.com) of search terms at a daily frequency. To ensure meaningful comparison between the two search engines, we restrict the search region to mainland China for both Google trends and the Baidu index, and convert Baidu’s search index to a monthly frequency by taking the average of the daily search indices of a given search term.[15] Note that Baidu’s search trend index is built upon a different base. To make the graph visually comparable, we scale it by 1,000.

Panel A of Figure 2 plots the search trend for search term “奥运会” in Google (shown as in solid blue line) and Baidu (shown as in dotted red line). During the sample period, the Olympic Games occurred twice, exactly two years before and after Google’s 2010 exit. It is obvious that prior to Google’s exit, search for this term became more intense in Google despite the fact that China was the host for the 2008 games. At a time when patriotism among individual Chinese reached a historical high and the attention for the games became unprecedented, Google still dominated when local individuals searched for information regarding such an international

[14] Although many regions in Asia shared the same Chinese heritage (for instance, Hong Kong and Taiwan), the predominant writing form outside the mainland is traditional Chinese. In this case, the traditional Chinese for the Olympic Games is “奧運會”.

[15] Baidu separates its search index based on searches originated from PCs and those from mobile devices. Since PCs are far more dominant during our sample period, we use the PC-based search index.

event. By contrast, Baidu sees a much larger spike in search trend for the same term in 2012 than 2008, suggesting that domestic individuals were forced to rely on Baidu for information on the international event after Google's pull out.

Panel B of Figure 2 compares search trends between Baidu and Google for the search term "Olympic Games". Since most Chinese do not speak or read English, there is a high degree of noise when using the search term in English to capture the search engine preference of local Chinese. Nevertheless, we observe a similar pattern as in Panel A.[16]

2.4. Measuring Optimism in Corporate Disclosure

We conduct textual analysis to examine the tone and sentiment in corporate disclosure. Similar to the existing literature in finance on qualitative information, we use an external dictionary, the HowNet Vocabulary for Sentiment Analysis, to categorize the intensity of optimism in the qualitative text in corporate press releases or annual reports. HowNet is a well-known general knowledge base developed in 1988 predicated on the idea that knowledge consists of the relations between concepts and the attributes of concepts, constructing inter-conceptual relations and inter-attribute relations of concepts as connoting in lexicons of Chinese and their English equivalents. The HowNet Vocabulary for Sentiment Analysis is a sentiment dictionary with both Chinese and English contents released in 2007, and is one of the most common sentiment dictionaries used in research involving Chinese text.[17]

HowNet assigns a word as carrying either a positive or negative emotion. It also ranks the strength of emotion in a word following a system of six sentiment categories, ranging from the

[16] Most likely individuals who are fluent in English, for instance, those with college degrees and capable of reading English documents, or foreign expats residing in China, would search the Olympics Games in English. Not surprisingly, the volume is lower in comparison to the one in Panel A.

[17] Follow http://www.keenage.com/html/c_index.html to download the HowNet Vocabulary for Sentiment Analysis. For details on HowNet, see Dong and Dong (2006).

strongest “超 | over / super” (s1), “极其 | extreme / 最 | most” (s2), “很 | very” (s3), “较 | more” (s4), to slightly weak “稍 | -ish” (s5) and the weakest “欠 | insufficiently” (s6).

Following Huang, Teoh and Zhang (2014), we measure the choice of the tone level in a press release with “Tone”, calculated as the difference between the number of positive and negative words in a press release, scaled by the number of non-numerical words in the release, multiplied by 10,000. We use the HowNet Vocabulary for Sentiment Analysis to assign a word exhibiting a positive or negative emotion. The higher the value, the more positive the tone is in the disclosure.

Our second proxy to capture the intensity of optimism in a press release is “Sentiment”. Following Loughran and McDonald (2011), we construct this variable as follows: We first count the number of words in a press release that belongs to one of the six sentiment categories s1 through s6. We then take the difference between the sum of the words in categories s1 through s4, and the sum of the words in categories s5 and s6. We then scale the difference by the total number of non-numerical words in the release, multiplied by 1,000. A higher value for this variable indicates a more positive sentiment in the disclosure.

In Appendix C, we provide a detailed description on the procedures and softwares used for the textual analysis on Chinese documents.

2.5. Sample Construction and Data Sources

The optimism in a press release depends on the nature of the event that corporations select and then broadcast publicly. To ensure that the tone and sentiment in corporate press releases are comparable over time, we focus on mandatory disclosures. Unlike voluntary disclosures, mandated press releases are subject to explicit rules about the disclosure, so management has less discretion in the qualitative presentation of information.

Article 30 of the Administrative Measures for Information Disclosure of Listed Companies, issued by the China Securities Regulatory Commission on January 30, 2007, defines the scope of a major corporate event ("material event") that requires public disclosure. Appendix B describes the details. We extract 202,131 public announcements of major corporate events by listed companies in mainland China from 2007 to 2014 from the iFinD terminal.[18] We then apply the following filtering criteria.

We first remove 21,621 announcement releases about trust, preferable government policies, equity-based incentive contracts, and split share structures. We then remove 14,955 releases involving material events such as litigation and arbitration, punishment and rectification, and 50,871 releases which were under the category of "others". We further exclude 11,776 announcements involving missing values for narrative variables, or involving firms with missing values in size, book-to-market ratio, age, or negative values for total assets or equity, 265 releases that contain less than 200 words, and 1,891 releases that are issued by financial firms. We are left with 100,752 announcements.

Lastly, to mitigate selection bias, we require a sample firm to issue such public disclosure both before and after Google's China exit. Our final sample contains 11,865 news announcements issued by 633 firms, among which, 4,334 news announcements are about overseas transactions and 7,531 are related only to domestic transactions.

2.6. Summary Statistics

Panels A and B of Table 1 summarize the sample distributions. The most common corporate press release is about project investment, regardless whether the investment occurs

[18] Similar to WIND, iFinD (http://www.51ifind.com/) of Zhejiang RoyalFlush Network Co. is a large database terminal aggregating financial information of publicly traded companies in China. iFinD groups some rare types of corporate press releases into one category "Other Material Events", it thus contains some 15 types of material events.

outside or within mainland China. This is followed by related party transactions and financing-related events. The disclosure of foreign and domestic material events follows a similar trend, increasing overtime, and was only affected negatively during the 2011-2012 economic downturn.

Panel C of Table 1 compares characteristics of sample firms whose corporate releases are related to foreign and domestic corporate events. The corporate releases regarding foreign events are more optimistic compared to those of domestic events. The two groups of firms share similar characteristics, such as size, book to market ratio, and firm age. Other firm characteristics, such as ROA and state-ownership, are not necessarily economically different between the two subsamples.

In Panel D we compare the tone and sentiment of press releases before and after Google's China exit. On average, both "Tone" and "Sentiment" in a press release are higher following Google's departure only if the disclosure is about a material foreign event. The rise in the narrative tone and sentiment of the disclosure is both highly statistically significant and economically sizable. For instance, compared to the pre-exit period, "Tone" ("Sentiment") in the post-exit period averages 2.384 (7.122), representing an 18.4% (34.9%) increase.

By contrast, among press releases regarding domestic events, the tone and sentiment in the narrative nature of the press releases on average drop following Google's exit, probably due to the fact that the post-exit period coincides with a declining economic condition worldwide. Nevertheless, the decline in optimism in disclosure for domestic events is not economically significant.

Figure 3 illustrates the change in tone (Panel A) and sentiment (Panel B) before and after the exit. Compared to the optimism in press releases about domestic events, which stay relatively flat, both optimism measures in press releases about foreign events rise significantly following

Google's exit. Overall the univariate comparison and Figure 3 offer preliminary evidence consistent with the premise that firms adapt their disclosure strategically following a negative shock to investors' information sets.

3. Main Results

3.1. Optimism in Corporate Press Releases and Google's Exit

We estimate the following regression model to test how firms modify the tone and sentiment in their press releases following Google's exit.

$$Narrative_{i,t} = \beta_0 + \beta_1 Foreign\ Event_{i,t} \times Google\ Exit + \beta_2 Foreign\ Event_{i,t} + \beta_3 Google\ Exit + \mathbf{B}_4\mathbf{X}_{i,t} + \epsilon_{i,t}$$

The dependent variable, $Narrative_{i,t}$, is either "Tone" or "Sentiment" of firm i's press release issued at time t. The dummy variable $Foreign\ Event_{i,t}$ takes value equal to one if firm i's press release issued at time t is regarding a material event which occurred outside mainland China. The dummy variable $Google\ Exit$ is set to one after March 23, 2010, when Google pulled out its operation from mainland China. Depending on the specifications, the matrix of control variables, $\mathbf{X}_{i,t}$, may include firm, event type, and year fixed effects, as well as firm-specific characteristics such as size, age, profitability (measured by ROA), state-ownership, growth opportunity (measured by book to market ratio), and whether a big-4 accounting firm is hired.

We explores the effect of Google's exit on the optimism in corporate disclosure by estimating the above model. In columns 1 to 6 of Table 2, we present the ordinary least squares estimates, beginning with a naïve correlation in column 1, and then including a limit set of fixed effects and controls for various firm characteristics for subsequent columns. Although the

parameter estimate of our variable of interest varies, we always find a positive and significant coefficient associated with the interaction term "Foreign Event" × "Google Exit". Since the tests in columns 3 and 6 include event type, firm, and year fixed effects, this indicates that the corporate press release issued by the same Chinese firm regarding the same type of foreign event becomes more bullish following Google's departure from mainland China. By contrast, the corporate press release regarding the same type of domestic event becomes more pessimistic after the exit, though the decline in "Sentiment" is not statistically significant.

Importantly, due the nature of the event and the content of corporate press release we exploit, the control sample in these tests is not limited to firms that issue press releases exclusively on domestic material events, but includes also firms that eventually or have already issued releases on foreign events, as well as firms that issue press releases on domestic events at different times than those on foreign events. For this reason, the identification comes from the fact that the control sample includes press releases that are not affected by the Google exit at the same time as the affected press releases.

Our findings are not only statistically, but also economically significant. The coefficient estimate in column 3 of Table 2 implies that, following Google's departure from mainland China, the tone of a corporate press release regarding a foreign event is 0.258 higher than that of a press release on an otherwise similar domestic event, accounting for 13.69 % of the sample mean. Column 6 of Table 2 implies that the sentiment in the narratives of disclosure for the foreign event becomes 0.421 higher –which accounts for 9.02% of the sample mean—during the post-exit period.

3.2. Cross-sectional Analysis

3.2.1. Alternative Access to Foreign Information

Our analysis so far demonstrates that by severely limiting domestic investors' independent access to foreign information, Google's exit leads to more bullish disclosures by Chinese domestic firms only if they are about foreign events. If firms indeed strategically exploit the shock to the scope of domestic investors' information sets, then a natural implication is that the effect on disclosure should be particularly prominent in firms whose investors lack alternative channels to access foreign information.

In this subsection, we first explore the role of foreign investors, who are not subject to the censorship of foreign information by the Chinese government. To ensure that our results are not driven by the differences in sample size, we repeat the tests in columns 3 and 6 of Table 2 in two subsamples: press releases issued by firms whose shareholders include Qualified Foreign Institutional Investors (QFII), and those issued by the matched ones without QFII investors.[19] At firm-quarter level, we match a sample firm with QFII investors with one without by industry, size, and book to market ratio. The match is done without replacement.

Table 3 reports the results. It is evident that the effect of Google's exit on the tone and sentiment of corporate press releases regarding foreign events is negligible when foreign institutional investors are present in issuing firms (columns 1 and 2). By contrast, in the absence of foreign institutional investors, Chinese domestic firms' disclosures about their foreign transactions become rosier after Google's departure in comparison to similar disclosures prior to the exit and to similar disclosures that do not involve foreign transactions.

[19] China launched the Qualified Foreign Institutional Investor (QFII) program in 2002 to allow licensed foreign institutional investors to buy and sell yuan-denominated "A" shares in the two China's mainland stock exchanges (Shanghai and Shenzhen Stock Exchanges). QFII investors are primarily selected based on years of experience, amount of paid-in-capital, and assets under management. See http://english.sse.com.cn/investors/qfii/what/ and http://www.csrc.gov.cn/pub/csrc_en/OpeningUp/ for more details.

Next, we explore the role of another active information intermediary: financial analysts. By collecting and disseminating firm-specific information, sell-side analysts facilitate information flow in the capital market. In a similar spirit, we distinguish firms that are covered by analysts affiliated with foreign brokers and those that are covered exclusively by analysts from domestic brokers. Unlike their domestic peers, foreign brokers also have operations outside mainland China. As such, the censorship of foreign information by the Chinese government has less of an effect on their analysts than those of domestic brokers.

From the CSMAR database, we identify 834 unique firms (8,564 firm-year observations) that have analyst coverage during the sample period. Our sample size reduces significantly because data coverage on analyst forecasts in China, especially during the early part of the sample period, is sporadic. Since foreign brokers can only operate in mainland China through forming a joint venture with a domestic broker, we loosely label an analyst from a joint venture broker as the one affiliated with a foreign broker.[20] At firm-year level, we match a sample firm that is covered by at least one analyst from a foreign broker with one that is covered by analysts exclusively from domestic brokers. The match is based on industry and size, and is done without replacement.

Table 4 reveals that Google's 2010 exit has little effect on the tone and sentiment of press releases regarding material events occurring outside China when the issuing firm is covered by analysts from foreign brokers (columns 1 and 2). If, instead, a firm is covered by analysts from domestic brokers, its press releases about foreign transactions become rosier after Google's

[20] Foreign brokerage firms are prohibited from operating independently in mainland China, but can form a joint venture with a domestic broker. The CSRC mandates that an individual foreign investor can hold up to 20% of shares in a (publicly traded) joint venture, and the total shares owned by foreign brokers in a joint venture cannot exceed 25%. See http://www.csrc.gov.cn/pub/newsite/flb/flfg/bmgf/zjgs/gsslbg/201310/t20131021_236602.html for more details. This joint ownership, however, does not alter the economic inference of the findings.

departure in comparison to similar disclosures prior to the exit and to those that do not involve foreign transactions. These results suggest that the bias in disclosure quality is prominent only when investors have no alternative mechanisms to substitute for their previous channels to access foreign information.

3.2.2 Retail Investors

One may wonder to what extent our results may be driven by other concurring events in 2010 that disproportionally lead to more optimism in disclosure of foreign events. To further address this concern, we split the sample on the level of retail ownership. Unlike institutional investors who may have multiple alternative sources to seek information and whose search cost is lower, Google searches are mostly commonly used by individuals. We postulate that Google's exit affects to a larger extent firms whose shareholder base consists more retail investors.

From iFinD terminal we extract account information on all shareholders and institutional investors. For each year, retail ownership is defined as the difference between the number of accounts of all shareholders and those that are institutional investors, scaled by the number of accounts from institutional investors.[21] In this way we capture a firm's retail shareholder composition relative to institutional investors. We then split the sample by the median level of retail ownership. Table 5 reveals that the effect of Google's exit on optimism in disclosure is stronger for firms that have a larger retail investor base.

Overall, the cross-sectional tests further lend credence to our causal inferences of the effect of Google exit on disclosure optimism. While the documented results could be driven by firms endogenously choosing to engage in more promising foreign growth opportunities, our

[21] Prior to April 1, 2015, China strictly enforced the "one investor, one account" rule. Each investor is allowed to own only one equity account.

tests suggest that the relation is unlikely to be entirely driven by this alternative selection argument.

3.3. Placebo Tests

Our estimates allow for a causal interpretation of the empirical evidence as long as the tone and sentiment in corporate press releases regarding foreign events did not behave differently than those about domestic events before Google's exit. To further ensure the robustness of our major findings, we conduct a placebo test. Following Leary and Roberts (2014), we randomly select 200 dates within the sample period and assign them as pseudo dates for Google's exit. We then re-estimate the regressions in columns 3 and 6 of Table 2 by replacing the date of actual exit with these placebo exit dates.

Table 6 Panel A presents the distribution of the coefficient estimate for the interaction term "Foreign Event" × "Google Exit" from the tests based on the 200 simulated pseudo-exit dates (columns 2 through 7) and the corresponding T-statistics (in the parenthesis) in comparison with the coefficient for the interaction term based on the actual exit date (column 1).

We observe that the mean and median of the coefficient estimates for "Foreign Event" × "Google Exit" from the 200 simulated pseudo-exit dates are all significantly smaller in magnitude than those estimated using the actual exit date (column 1). In terms of "Tone", the mean and median of placebo estimate for the interaction term are both 0.069, compared with 0.5. In terms of "Sentiment", the mean and median of the placebo estimates are 1.095 and 1.122, respectively, compared with 2.222. Moreover, Panel A shows that most of the placebo estimates are statistically insignificant.

Panel B of Table 6 provides further evidence that the tone and sentiment in corporate disclosures did not exhibit different trends already before the 2010 exit. To evaluate this

possibility, we define two false exits, “Pre Exit 2009”, to take value of one in and after year 2009, and “Pre Exit 2008”, to take value of one in and after year 2008. We then include in the estimation, respectively, the interaction between “Foreign Event” and each of the two dummies capturing pre-exit trends. We find that, if anything, the tone and sentiment in corporate press releases regarding foreign events are more pessimistic in the two years prior to the exit. More importantly, our main findings are qualitatively and quantitatively invariant.

Taken together, the results from Table 6 indicate that the timing of the exit fully supports the causal interpretation of the empirical evidence.

4. An Out-of-Sample Test Using Annual Reports

Our hypothesis implies that firms adjust their disclosure strategically depending on the extent investors can acquire firm-specific information independently. So far, we have considered corporate press releases. To assess the generality of our conclusions, we analyze another type of mandated disclosure: annual reports of public traded companies. Importantly for our identification, annual reports differ from corporate press releases in that the timing of the annual report is relatively exogenous and the content is not driven by any particular corporate event, which may arise endogenously. In particular, we focus on disclosures through the Management’s Discussion and Analysis (MD&A) of the firm’s performance that are designed to bring investors’ expectations in line with that of the management.

From the CSMAR database, we extract 16,969 firm-year observations of all firms traded on the A-share market between 2007 and 2014. We exclude financial firms (365 observations), 963 firm-year observations with missing value in size, market to book, and age, 206 firm-year observations with negative total assets or net assets, 5,351 firm-year observations with less than

3 years observations before and after Google's exit, 1,262 firm-year observations in the event year of 2010, and 152 firm-year observations with missing value in earnings management proxies. Our final sample consists of 8,670 firm-year observations and 1,273 unique firms.

We conduct textual analysis on the MD&A section of the annual reports of these firms and construct "Tone" and "Sentiment" for the annual reports of our sample firms from 2007 to 2014. To distinguish between firms that have foreign operations and those that focus their business domestically, we define "MNC (D1)" as a dummy variable equal to one if, in any given year during the sample period, a firm's foreign sales exceeds 5% of its total sales, and zero otherwise. To further capture that a firm's foreign operation is predetermined with respect to Google's exit, we also refine this dummy to "MNC (D2)", a dummy variable set to one when a firm has any foreign sales during the pre-exit period of 2007-2010. This variable is set to zero if a firm has no foreign sales prior to Google's exit.

Alternatively, for each sample firm, we calculate the fraction of its total sales being foreign sales. Specifically, "MNC (%)" is computed as the natural logarithm of one plus the fraction of total sales being foreign sales.

We estimate a variation of the main regression in which the dummy "Foreign Event" is replaced by the dummies "MNC (D1)" and "MNC (D2)", as well as "MNC (%)", respectively. Table 7 reveals that, also following dramatic change in investors' access to foreign information due to Google's China exit, firms that happened to have significant foreign sales prior to the exit become more optimistic in their annual reports (columns 3 and 4). The narratives of the annual reports from firms that rely more on foreign sales relative to domestic sales become rosier after Google's exit than those of firms that have a smaller percentage of sales coming from outside mainland China (columns 5 and 6). For instance, a one-standard-deviation increase in the

proportion of foreign sales leads to 7.757 higher in “Tone” and 0.1957 higher in “Sentiment” following Google’s exit, accounting for 3.797% and 2.768% of the sample mean, respectively.

One consequence from deteriorating disclosure quality is a decline in earnings quality. We re-estimate our models in Table 8, but replace the narrative variables with accrual-based measures for earnings quality. We construct earnings management proxies based on the modified Jones’ model (“Accrual (MJones)”) and Kothari-Leone-Wasley’s (2005) profit-adjusted model (“Accrual (KLW)”).

Table 8 provides clear evidence that firms that generate significant foreign sales manage earnings upwards to a larger extent in comparison to firms that focus on domestic sales (columns 1-4). Similarly, firms that have disproportionally higher foreign sales are associated with more earnings management than firms with a lower fraction of foreign sales (columns 5-6). A one-standard-deviation increase in the proportion of foreign sales is linked to 0.0107 higher “Accrual (MJones)” and 0.0107 higher “Accrual (KLW)”, accounting for 15.643% and 17.175% of the sample mean, respectively. Overall, these results confirm that firms with more foreign sales relative to domestic sales manage their earnings to a greater degree than firms that rely less on foreign sales.

5. Who Benefits from Bullish Disclosures?

In this section we examine the insider trading activities surrounding the announcement of corporate events and the release of annual reports. Table 9 shows that abnormal return surrounding the 3-day announcement window is higher when a firm issues a rosier press release on major events or an optimistic annual report (columns 1-2 and 5-6), especially if the announcement is regarding a foreign event (columns 3-4) or the issuing firm has operations in

foreign countries (columns 7-8). This finding suggests a motive for issuing bullish disclosures, which potentially allows insiders to profit from the price run-ups.

We obtain insider trading data from the WIND database and merge it with information on corporate press releases and annual reports. Our first measure for insider trading activities is the share volumes sold by corporate insiders during the $[t, t+90]$ event window, where day t is when a firm issues a press release about a material event or an annual report. We sum up the number of shares sold by insiders during this 90-day event window, and scale it by the total number of shares outstanding. This variable is set to zero when there is no insider selling activity during the event period. Alternative durations of the event window do not alter our findings.

Our second measure is the 90-day abnormal return earned by insiders from selling firm shares during the event window. We compute the 90-day cumulative abnormal return (CAR) at the time when an insider initiates a sale during the $[t, t+90]$ event window, multiplying by -1. The pre-event window $[t-120, t-30]$ is used in the market model to estimate the abnormal return. If there is more than one insider sales transaction during the event window, we average all the CARs. CAR is set to missing if there is no insider selling activity during the event window.

We split the sample of insider trading based on whether or not the press release involves a foreign event, and whether or not an annual report comes from a firm whose foreign sales exceed 5% of its total sales. Panel A of Table 10 reveals that following Google's pull-out from China, the volume of shares sold by corporate insiders during the announcement period increases significantly if there is greater optimism in a press release about foreign event (columns 1-2) or in an annual report from firms with foreign operations (columns 5-6). A one-standard-deviation increase in "Tone" leads to a 0.151 higher insider sales volume after Google exit, comparing to the average insider sales volume of 0.255 prior to the exit.

In contrast, the coefficient estimates for “Tone” × “Google Exit” and “Sentiment” × “Google Exit” are statistically insignificant if the press release is about a domestic event (columns 3-4) or if the annual report comes from a firm with no substantial foreign operations (columns 7-8). This suggests that there is no difference in insider selling activities in responding to the optimism in disclosures between the pre and post-exit periods.

Panel B of Table 10 confirms that optimism in disclosure allows insiders to earn significantly higher returns from selling firm shares during the announcement window after Google’s exit only when disclosure involves a foreign event (columns 1-2) or is released by firms with foreign operations (columns 5-6). The effect is also economically sizable. For example, a one-standard-deviation increase in “Tone” leads to 5.8% higher abnormal return from insider sales after Google exit, comparing to 6.3%, the average pre-exit insider sales return. In comparison, if disclosure involves domestic event or is from firms focusing on domestic operations, more optimism in disclosure does not lead to a difference in abnormal returns earned from selling shares during the event window between the pre- and post-exit periods.

Overall, these results highlight the personal benefits that managers can extract from issuing bullish disclosures. By taking advantage of the shock that severely changes investors’ access to foreign information and adjusting the reporting practice for events and operations that investors are no longer able to easily validate, managers can earn higher returns.

6. Additional Robustness

In this session we discuss the results from additional robustness tests. Managers may take advantage of the shock to investors’ ability to search firm-specific foreign information not only by pumping up tone optimism, but also by increasing the opacity of their disclosure. To the

extent that managerial optimism may appear more credible when a report is more difficult to read and understand, we expect a rise in the complexity of the press release describing a foreign material event following Google's exit.

We assess the complexity of a press release with "Ucdensity" and "Cohesion". The former captures how frequently corporate disclosures use uncommon words, which we identify from each press release using the official list of less common words in modern Chinese language.[22] The latter captures the density of cohesive words in a sentence. We use Liao (1986) to extract cohesive words and compute this variable as the number of cohesive terms per sentence of no less than 100 words.

We re-estimate Table 2 replacing "Tone" and "Sentiment" with "Ucdensity" and "Cohesion". Table 11 provides clear evidence that following Google's exit from mainland China, there is a significant rise in the complexity in corporate press releases regarding foreign events. The coefficient estimates for the interaction term "Foreign Event" × "Google Exit" are both positive and statistically significant for "Ucdensity" (columns 1-2) and "Cohesion" (columns 3-4). Similar to Table 2, there is no change in disclosure complexity between the pre- and post-exit periods if the corporate press release is about a domestic material event.

Accrual based earnings management proxies are known to have reversals. To ensure that the effect of Google's exit on earnings management is not transitory, we also follow Dechow and Dichev (2002) and compute accrual volatility. Higher accrual volatility indicates lower earnings quality in financial reporting. Table 12 confirms that following Google's exit, firms with more foreign sales relative to domestic sales have a lower earnings quality than firms that rely less on foreign sales.

[22] "A List of Less Common Words in Modern Chinese Languages", issued in 1988 by the State Language Commission and Ministry of Education of China (http://www.zdic.net/z/zb/cc2.htm).

One concern about our insider trading analysis is that managers trade for a variety of reasons; as such, routine trading activities may not be driven by insider's information in comparison to their "opportunistic" trading. To further capture trading activities arising from managers' private information, we restrict our insider selling proxies to only opportunistic trades. Following Cohen, Malloy, and Pomorski (2012), a trade is considered a routine trade if an insider initiates a transaction in the same month in the past two consecutive years. The rest of the trades are classified as opportunistic trades. "Opportunistic Insider Sales" is thus the sum of the shares of opportunistic sales by corporate insiders in the announcement window, scaled by the total shares outstanding. "Returns from Opportunistic Insider Sales" is the abnormal returns earned through opportunistic sales of firm shares.

Table 13 re-estimates the results in Table 10, focusing only on opportunistic selling volume (Panel A) and abnormal returns earned from opportunistic insider sales (Panel B). We continue to find that managers initiate more sales of shares surrounding the announcements of foreign events following Google's departure and earn significantly higher returns. Similarly, insider selling activities and profit from such sales are also obvious from firms in which a non-trivial portion of sales comes from overseas. In contrast, Google's exit does not lead to a larger insider opportunistic selling volume nor higher returns from such transactions if the announcement is about domestic events, or if a firm's operation focuses almost exclusively in the domestic market.

Another concern is that the tone and sentiment in corporate disclosure reflect the fact that firms select to engage in profitable opportunities propelled by the economic development in these foreign countries. Google has also exited from other countries. In the main analysis, we address this concern by including firm, event, and year fixed effects and conducting cross-

sectional analysis. If the results are driven by the growth opportunities in foreign countries, we should not observe differential exit effects along all dimensions in firms' foreign and retail ownership and analyst coverage. Nevertheless, to further mitigate the concern that disclosure optimism reflects pre-existing or concurrent growth opportunities in a foreign country, we include controls for a country's GDP growth in the year when a foreign event occurs and the year before, as well as their interactions with the exit dummy. As Table 14 shows, our results are invariant.

Alternatively, if positive tone and sentiment indeed capture promising growth opportunities in foreign countries, more optimistic narratives in press releases should be related to higher market reactions throughout time. Instead, if investors eventually learn about the distortion in disclosure, the magnitude of market reaction to tone and sentiment should decrease. In response, managers have incentives to boost the optimism in press releases to an even larger extent.

We re-estimate columns 3-4 of Table 9 for the post-exit periods of 2010-2011, 2010-2012, 2010-2013, and 2010-2014. We then, respectively, plot the coefficients for "Foreign Event" × "Tone" and "Foreign Event" × "Sentiment" against the differences in "Tone" and "Sentiment" between the foreign and domestic event subsamples over time. Figure 4 provides additional evidence consistent with firms' strategically taking advantage of the weakened information environment following Google's exit, but inconsistent with optimism in disclosure capturing desirable foreign opportunities. During the post-exit period, the extent of market reactions to disclosure optimism, as captured by the coefficient for the interaction term, mostly decrease over time. In contrast, the difference in tone and sentiment in press releases between foreign and domestic events rises significantly from 2011 to 2014.

7. Conclusion

In this paper, we study firms' strategic disclosure behavior when investors' channels to access firm-specific information are severed. We conduct textual analysis and exploit an exogenous event—Google's 2010 surprising retreat from mainland China, which significantly hinders domestic investors' ability to search for foreign information. We find that Chinese domestic firms' announcements on their foreign investments become more bullish after Google's exit in comparison to similar announcements prior to the exit and in comparison to those that do not involve foreign investments. Firms with existing foreign operations issue rosier annual reports and are more likely to manage their earnings upwards following Google's withdrawal.

Furthermore, this effect is mitigated in the presence of foreign investors, or analysts affiliated with foreign brokers, who are not subject to the censorship of foreign information by the Chinese government. The exit effect on disclosure optimism is also more pronounced when a firm has a larger retail investor base. A more optimistic announcement or annual report allows insiders to sell more shares at a higher price.

Overall, our findings indicate that to what extent information can be effectively transmitted imposes a potential constraint on manipulation by firms, and thus plays an important function in facilitating investors' information production and transparency in capital markets. Our findings also highlight the role of formal institutions in shaping information environment and call for the urgency of their development in the emerging markets.

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Appendix A: Variable Definition and Data Source

Variables	Definition
Accrual (MJones)	Dechow, Sloan and Sweeney's (1995) modified Jones model measure of discretionary accruals, constructed as the residual of the following model estimated for each industry and year: $\frac{TACC_{it}}{TA_{it-1}} = \varphi_0 + \varphi_1 \frac{1}{TA_{it-1}} + \varphi_2 \frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{it-1}} + \varphi_3 \frac{PPE_{it}}{TA_{it-1}} + e_{it}$. For firm i in year t, $TACC_{it}$ is the total accruals defined as the difference between net income and cash flows from operations; ΔREV_{it} is the change in revenue, and ΔAR_{it} is the change in account receivables, from year $t-1$ to t, respectively; PPE_{it} is the gross property, plant and equipment; and TA_{it} is the total assets. Industry classification is based on the 2012 CSRC industry classification. Winsorized at 1% and 99% levels. Source: CSMAR database.
Accrual (KLW)	Kothari, Leone and Wasley's (2005) measure of discretionary accruals, constructed as the residual of the following model estimated for each industry and year: $\frac{TACC_{it}}{TA_{it-1}} = \beta_0 + \beta_1 \frac{1}{TA_{it-1}} + \beta_2 \frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{it-1}} + \beta_3 \frac{PPE_{it}}{TA_{it-1}} + \beta_4 \frac{ROA_{it}}{TA_{it-1}} + \epsilon_{it}$. For firm i in year t, $TACC_{it}$ is the total accruals defined as the difference between net income and cash flows from operations; ΔREV_{it} is the change in revenue, and ΔAR_{it} is the change in account receivables, from year $t-1$ to t, respectively; PPE_{it} is the gross property, plant and equipment; TA_{it} is the total assets; and ROA_{it} is the return on assets. Industry classification is based on the 2012 CSRC industry classification. Winsorized at 1% and 99% levels. Source: CSMAR database.
Accrual Volatility	Dechow and Dichev's (2002) measure of accrual volatility, constructed as the standard deviation of working accruals in the previous three years. For firm i in year t, its working accrual is computed as $\Delta AR_{it} + \Delta INV_{it} - \Delta AP_{it} - \Delta TAXP_{it}$, where ΔAR_{it} is the change in account receivables, ΔINV_{it} is the change in inventories, ΔAP_{it} is the change in account payables, and $\Delta TAXP_{it}$ is the change in tax payables, from year $t-1$ to t, respectively. Winsorized at 1% and 99% levels. Source: CSMAR database.
Age	Natural logarithm of the difference between the current year and the founding year of the firm. Source: CSMAR database.
Big 4 Auditor	A dummy variable equal to one if a firm's auditor belongs to one of the Big 4 auditing firms, and zero otherwise. Source: CSMAR database.
Book to Market	Book value of equity divided by market value of equity. Winsorized at 1% and 99% levels. Source: CSMAR database.
Cohesion	The number of cohesive terms per 100 Chinese characters. Winsorized at 1% and 99% levels. Source: iFinD and Liao (1986).
Foreign Event	A dummy variable equal to one if a corporate press release is about a

	material event occurred outside the mainland China, and zero otherwise. Source: iFinD.
Google Exit	A dummy variable equal to one if a corporate press release is issued after March 23, 2010, when Google pulled out from the mainland China, and zero otherwise.
Insider Sales	The sum of shares sold by insiders during an announcement window, scaled by the number of shares outstanding. This variable is set to zero if there is no insider sales during the announcement window. An announcement window is from day t to day $t + 90$, where t is the announcement date of the press release or annual report. Source: WIND database.
Local GDP Growth	The GDP growth rate of the country in which the foreign event in the news release takes place. This variable is set to China's GDP growth rate if it is a domestic event. Winsorized at 1% and 99% levels. Source: CSMAR database.
MNC (D1)	A dummy variable equal to one if at least in one year during the 2007-2014 period, a firm's foreign sales exceeds 5% of its total sales, and zero otherwise. Source: iFinD.
MNC (D2)	A dummy variable equal to one if a firm has any foreign sales during the pre-exit period of 2007-2010, and zero otherwise. Source: iFinD.
MNC (%)	The fraction of a firm's total sales being foreign sales during the sample period. Computed as the natural logarithm of one plus the fraction of total sales being foreign sales. Winsorized at 1% and 99% levels. Source: iFinD.
Opportunistic Insider Sales	The sum of shares of opportunistic sales by corporate insiders in the announcement window, scaled by the total shares outstanding. This variable is set to zero if there is no insider sales during the announcement window. An announcement window is from day t to day $t + 90$, where t is the announcement date of the press release or annual report. Following Cohen, Malloy, and Pomorski (2012), a trade is considered a routine trade if it occurred in the same month in the previous two consecutive years, otherwise it is classified as an opportunistic trade. Source: WIND database.
Retail Ownership	The number of retail investors, computed as the difference between the number of all shareholders and institutional investors, scaled by the number of institutional investors. Winsorized at 1% and 99% levels. Source: iFinD.
Return from Insider Sales	Loss that an insider can avoid by selling shares during the announcement window. Calculated as the 90-day cumulative abnormal return over a market model from the date when an insider initiates a sales of shares, multiplied by -1. If there are multiple insider sales transactions, we take the average. This variable is set to missing if there is no insider sales during the announcement window. An announcement window is the period of t to $t + 90$ days, where t is the announcement date of the press release or annual report. The pre-event window for the market model to estimate abnormal return

	is from day $t-120$ to day $t-30$. Source: CSMAR and WIND databases.
Return from Opportunistic Insider Sales	The 90-day cumulative abnormal return over a market model from the date when an insider initiates an opportunistic sales of shares, multiplied by -1. If there are multiple insider sales transactions, we take the average. This variable is set to missing if there is no insider sales during the announcement window. An announcement window is the period of t to $t+90$ days, where t is the announcement date of the press release or annual report. The pre-event window for the market model to estimate abnormal return is from day $t-120$ to day $t-30$. Following Cohen, Malloy, and Pomorski (2012), a trade is considered a routine trade if it occurred in the same month in the previous two consecutive years, otherwise it is classified as an opportunistic trade. Source: CSMAR and WIND databases.
ROA	Net income divided by total assets. Winsorized at 1% and 99% levels. Source: CSMAR database.
Sentiment	Loughran and McDonald's (2011) measure of sentiment, constructed as the difference between the sum of the numbers of words in each of the four categories on the intensity of positive sentiments, and the sum of the numbers of words in each of the two categories on the intensity of negative sentiments, scaled by the total number of words in a press release, and multiplied by 1,000. Winsorized at 1% and 99% levels. Source: iFinD and HowNet Vocabulary for Sentiment Analysis.
Size	Natural logarithm of total assets. Winsorized at 1% and 99% level. Source: CSMAR database.
SOE	A dummy variable equal to one if a firm is state-owned and zero otherwise. Source: CSMAR database.
Tone	Huang, Toeh, and Zhang's (2014) measure of tone, constructed as the difference between the number of positive and negative words, scaled by the total number of non-numerical words in a press release, multiplied by 10,000. Winsorized at 1% and 99% levels. Source: Vocabulary for Sentiment Analysis, 1988.
Ucdensity	The number of less common words in a press release, multiplied by 100, and scaled by total number of words in the release. Source: Modern Chinese Vocabulary for Less Common Words.

Appendix B: Definition of Material Event by the CSRC

Article 30 of the Administrative Measures for Information Disclosure of Listed Companies, issued by the China Securities Regulatory Commission on January 30, 2007, defines the scope of a major corporate event that requires public disclosure.[23]

If any material event that may considerably affect the trading price of the securities and derivatives of a listed company occurs and that it is not yet known by the investors, the listed company shall immediately give disclosure as well as explanation of the cause, the current situation and the possible consequences.

The term "material event" as mentioned in the preceding paragraph includes the following circumstances:

1. Any major change in the managerial principle or in the business scope of the company;
2. Any decision of the company on major investments or major purchases;
3. Any important agreement concluded by the listed company that might significantly affect its corporate assets, liabilities, rights and interests or operation results;
4. Any major debt incurred by the company or default on any major debt or any obligation to pay a large sum of compensation;
5. Any major deficit or significant losses in the company;
6. Material changes on the external conditions of the company's production operation;
7. Any change of directors, over one-third of the supervisors or managers of the company; or impossibility to perform duties of the chairman of the board of directors or the managers;
8. Any considerable change on the control of the company or on the shareholding of the de facto controllers or any shareholders that holds more than 5% of the corporate stock;
9. Any decision on capital reduction, merger, split-up, dissolution or application for bankruptcy; or falling in bankruptcy process or being ordered to close down in accordance with law;
10. Cancellation or invalidation of any resolution of the shareholders' assembly or the board of directors in relation to an important litigation or arbitration in which the company is involved;
11. Investigation on any alleged offences conducted by the relevant authority or any criminal punishment or major administrative punishment imposed against the company; or any investigation or coercive measure conducted or imposed against the directors, supervisors or senior management of the company as a consequence of alleged violation of law or disciplinary rules;
12. Any newly promulgated law, regulation, provisions or industrial policy that might significantly affect the company;
13. Any resolution of board of directors on new stock offering plan or any other refinancing plan or any share rights incentive plan;
14. Any court resolution prohibiting the controlling shareholders from transferring its shares; or any pledge, freezing of assets, judicially auction, custody, entrustment or voting rights legal limitation on the shares held by any shareholder that holds more than 5% of the corporate stock;

[23] See https://www.sipf.com.cn:7002/en/lawsandregulations/linvestors/otherlawsandregu/08/32152.shtml for further details.

15. Any seizure, retention, freezing, mortgage or pledge on the main assets of the company;
16. Breaking down of the main or all the businesses;
17. Granting of important external guaranty;
18. Any extraneous income that might considerably affect the assets, liabilities, rights and interests or operation results of the company such as a large sum of government subsidy;
19. Any changes on accounting policies or accounting estimates;
20. Any order of the relevant authority or resolution of the board of directors issued or adopted in order to correct or amend errors, disclosure fail to comply with rules or false representations contained in the information previously disclosed;
21. Any other circumstances as prescribed by the CSRC.

Appendix C: Procedures of Textual Analysis on Disclosures in Chinese

We first download the corporate press releases and annual reports in PDF format from iFinD terminals and the websites of stock exchanges. We then convert these PDF files into HTML files using conversion software such as "Solid Converter PDF".

Next, we extract text information using Perl's "HTML: Treebuilder" module. We remove pictures (HTML tag "img"), tables (HTML tag "td"), and blanks between paragraphs (HTML tag "p"), and then transform the content into TXT text by removing all HTML tags.

To identify meaningful words from sentences, we rely on the Simple Chinese Word Segmentation System (SCWS), an open-source Chinese knowledge base focusing exclusively on computerizing and segmenting the characters in Chinese sentences into phrases.[24] UNIX commands are used to screen the TXT files and separate characters into meaningful words.

Lastly, using the HowNet Vocabulary for Sentiment Analysis, we assign sentiment values to the words in the press releases and the M&DA of annual reports. We then run Perl script to compute the frequency of words with different degrees of sentiment to construct "Tone" and "Sentiment".

[24] See http://www.xunsearch.com/scws/

Figure 1: Baidu and Google's Market Share in China

This figure compares the market shares (in %) between Baidu and Google in China during the sample period. The left Y-axis is the market share of Google, and the right Y-axis is the market share of Baidu. Source: China Internet Network Information Center (CNNIC)'s Statistic Report on Internet Development in China, 2007-2014.

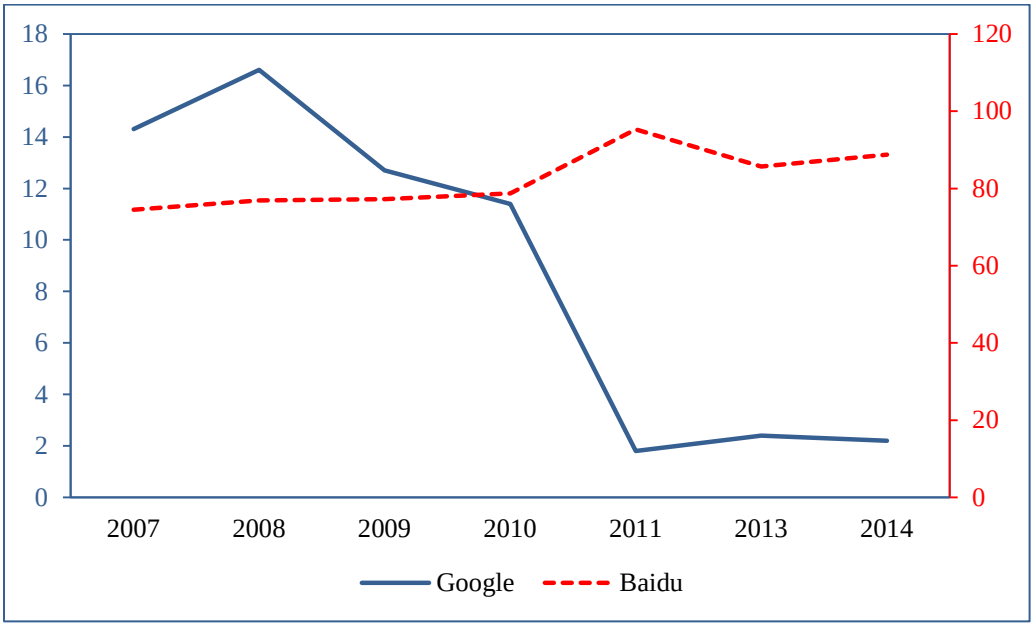
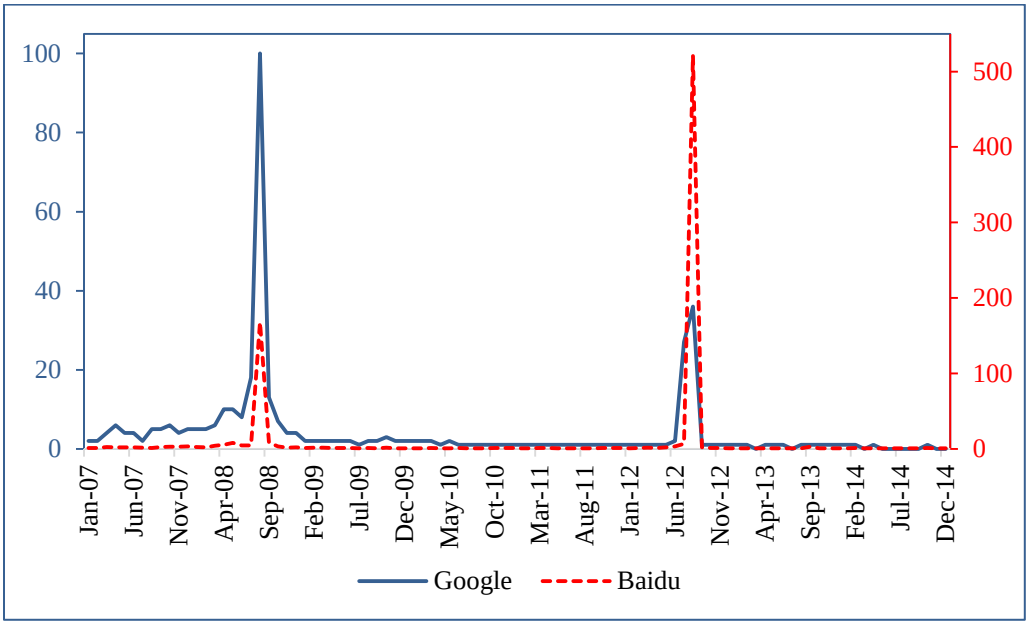


Figure 2: Search Volumes of Key Word in Baidu and Google

Panels A and B plot the monthly search volume of search term "奥运会" ("Olympic Games" in Chinese) and "Olympic Games" from January 2007 to December 2014, respectively. The left Y-axis is the search volume index of Google, and the right Y-axis is the search volume index of Baidu (in Panel A, the volumes are in thousands).

Panel A: Search Term "奥运会"



Panel B: Search Term "Olympic Games"

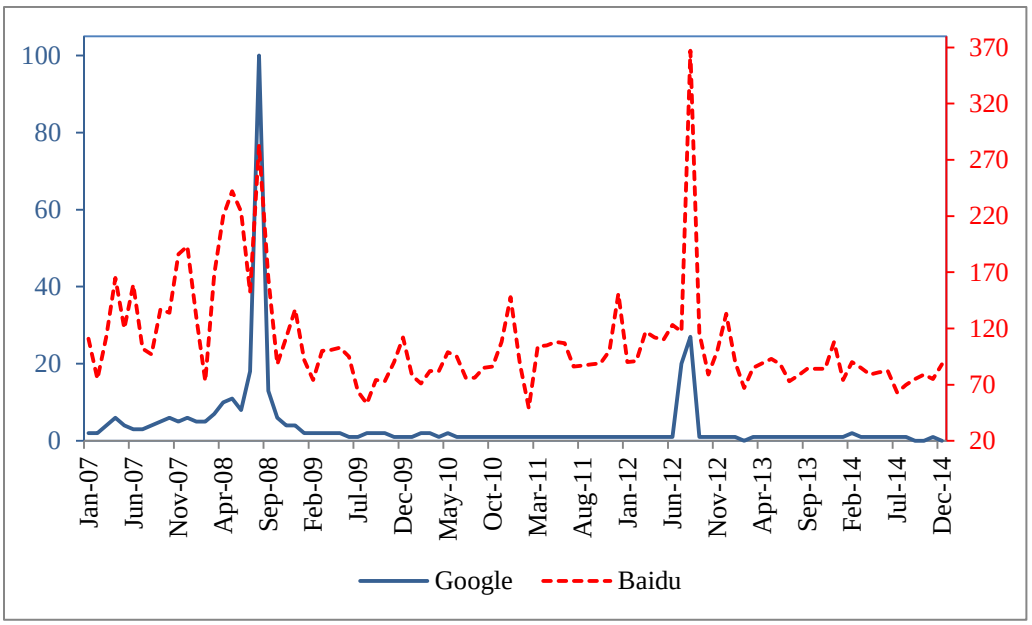
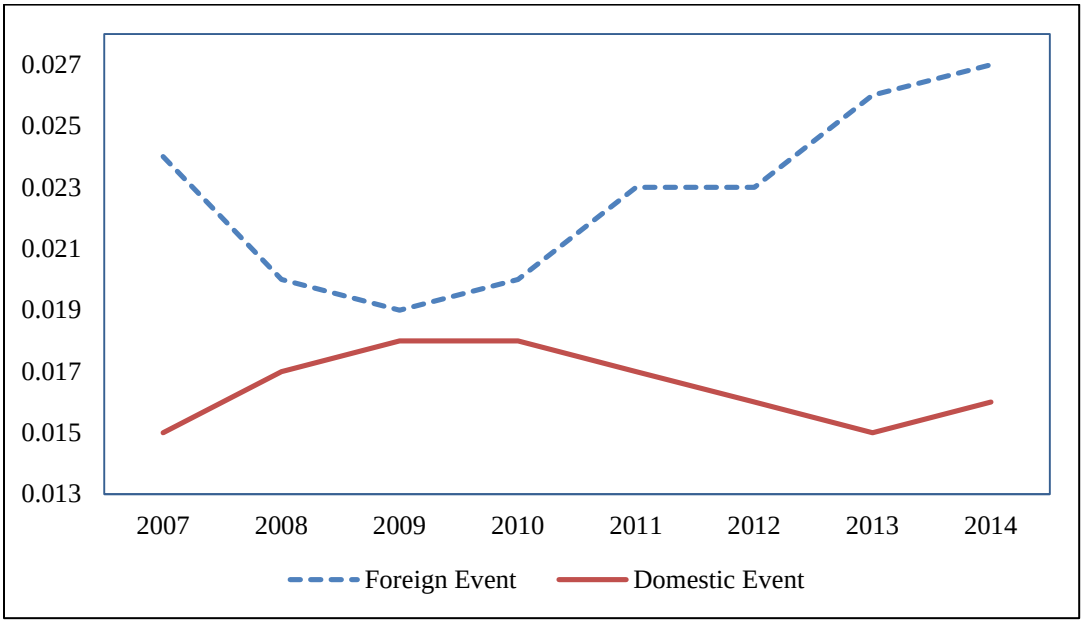


Figure 3: Tone and Sentiment in Corporate Press Releases Surrounding Google's Exit

This figure compares "Tone" (Panel A) and "Sentiment" (Panel B) in corporate press releases during the sample period. Google exited mainland China in March 2010.

Panel A: Tone of Corporate Press Releases



Panel B: Sentiment of Corporate Press Releases

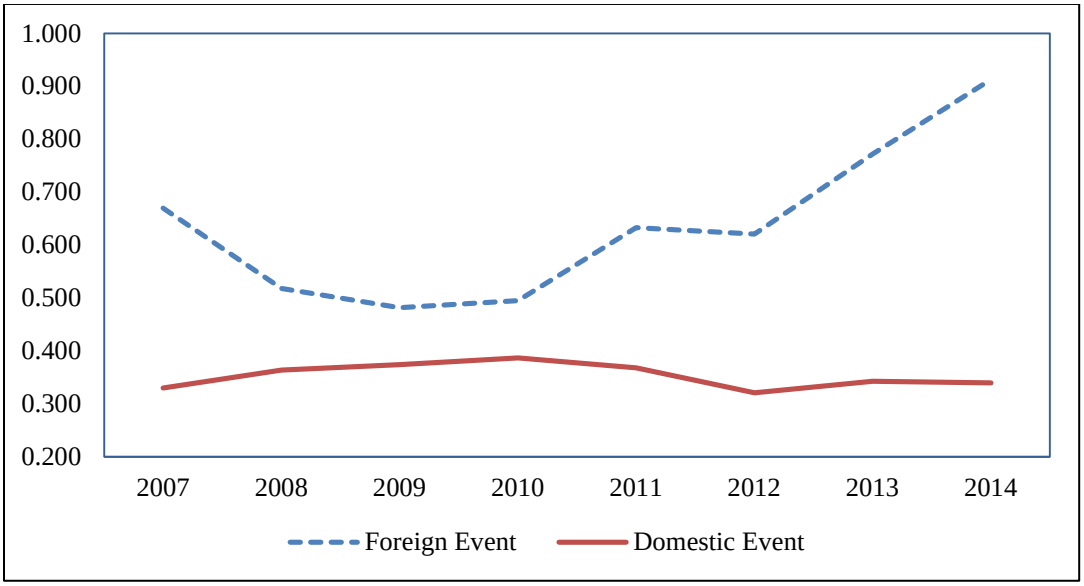
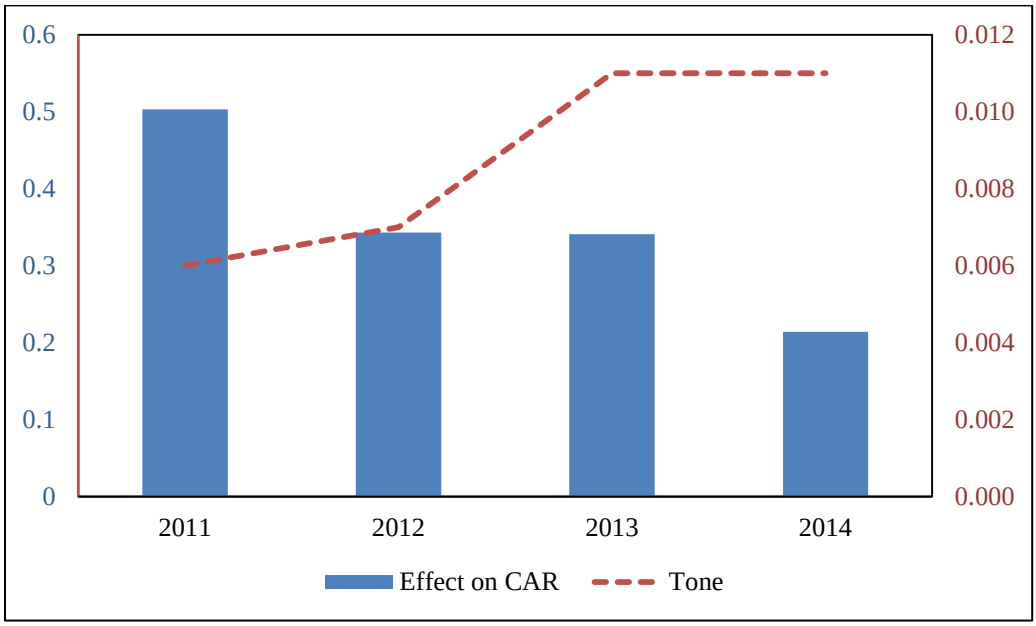


Figure 4: Market Reactions to Disclosure Optimism Post Google's Exit

In Panel A (Panel B), the blue bars are the coefficient estimates for "Foreign Event" × "Tone" ("Foreign Event" × "Sentiment") as in Table 9 column 3 (column 4) over the 2010-2011, 2010-2012, 2010-2013, and 2010-2014 sample periods, respectively. The orange dotted line is the difference in "Tone" ("Sentiment") between the foreign and domestic event subsamples in each year.

Panel A: The Effect of Tone on CAR[-1, +1] over Time



Panel B: The Effect on Sentiment on CAR[-1, +1] over Time

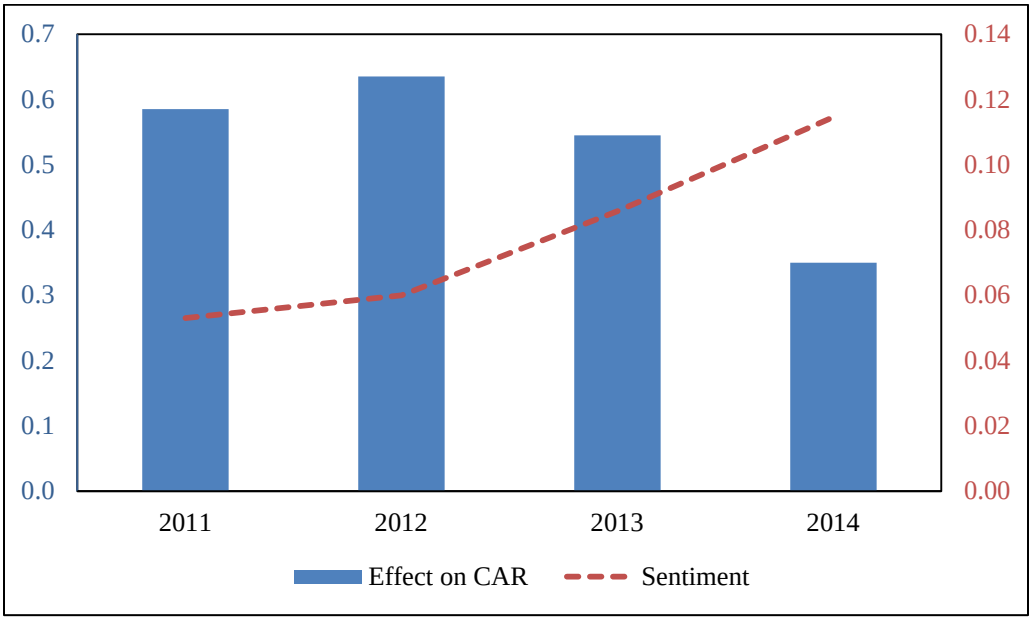


Table 1: Summary Statistics

The sample period is 2007-2014. The unit of analysis is at the corporate press release observations. Panels A and B report the summary statistics of the number of corporate press releases for material events by type and by year. In Panel C, we compare firm and disclosure characteristics of corporate press releases involving foreign and domestic events. The T-test for the difference in sample mean is reported in the last column. In Panel D, we compare the optimism in the tone and sentiment in press releases issued during the pre- and post-Google exit period. Columns 3 and 6 report the difference in "Tone" and "Sentiment" between the two periods in press releases regarding foreign events and domestic events, respectively. Column 7 reports the difference between columns 3 and 6. The T-statistics testing the change in "Tone" and "Sentiment" being different from zero is tabulated in the parenthesis underneath. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Sample Distribution by Event Type

Event Type	Foreign Event	Domestic Event	# of obs.
Asset Restructuring	417	657	1,074
Major Contract	343	464	807
Borrowing	54	109	163
Collateral and Guarantees	711	1,240	1,951
Project Investment	910	1,646	2,556
Related Party Transaction	846	1,145	1,991
Fund Raising	486	923	1,409
Other Financing	567	1,347	1,914
Total	4,334	7,531	11,865

Panel B: Sample Distributions by Year

Year	Foreign Event	Domestic Event	# of obs.
2007	165	226	391
2008	318	516	834
2009	555	874	1,429
2010	728	1,218	1,946
2011	570	914	1,484
2012	455	710	1,165
2013	651	1,228	1,879
2014	892	1,845	2,737
Total	4,334	7,531	11,865

Table 1 Continued.

Panel C: Univariate Comparison between Foreign and Domestic Events

	Foreign Event			Domestic Event			T-statistics
	# of obs.	Mean	Std.	# of obs.	Mean	Std.	
Tone	4,334	2.280	1.480	7,531	1.657	0.741	30.51***
Sentiment	4,334	6.608	7.338	7,531	3.551	3.288	31.13***
Size	4,334	22.738	1.521	7,531	22.720	1.492	0.63
Book to Market	4,334	0.834	0.707	7,531	0.816	0.661	1.36
Age	4,334	2.584	0.409	7,531	2.596	0.407	-1.49
ROA	4,334	0.039	0.046	7,531	0.037	0.046	1.93*
SOE	4,334	0.598	0.490	7,531	0.559	0.497	4.21***
Big 4 Auditor	4,334	0.172	0.378	7,531	0.142	0.349	4.46***

Panel D: Univariate Comparison between Pre and Post Google Exit

	Foreign Event			Domestic Event			Diff-in-Diff
	Pre	Post	Post-Pre	Pre	Post	Post-Pre	
Tone	2.013	2.384	0.370***	1.739	1.630	-0.109***	0.479***
			(7.44)			(-5.51)	(2.11)
Sentiment	5.276	7.122	1.846***	3.656	3.517	-0.138	1.985***
			(7.47)			(-1.57)	(2.02)
# of obs.	1,208	3,126	4,334	1,857	5,674	7,531	

Table 2: The Tone of Corporate Press Releases and Google's China Exit

The dependent variable is "Tone" in columns 1 and 2 and is "Sentiment" in columns 3 and 4. The sample period is 2007-2014. The unit of analysis is the corporate press release observations. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Tone			Sentiment		
	(1)	(2)	(3)	(4)	(5)	(6)
Foreign Event × Google Exit	0.479**	0.489**	0.500**	1.985**	2.188**	2.222*
	(2.11)	(2.05)	(2.07)	(2.02)	(1.98)	(1.93)
Foreign Event	0.274*	0.302**	0.321**	1.621***	1.683***	1.759***
	(1.91)	(2.06)	(2.16)	(4.17)	(4.04)	(4.48)
Google Exit	-0.109*	-0.286***	-0.235**	-0.138	-0.916*	-0.648
	(-1.75)	(-2.92)	(-2.46)	(-1.10)	(-1.96)	(-1.49)
Size		-0.021	0.094**		0.056	0.388*
		(-1.41)	(2.26)		(0.48)	(1.78)
Book to Market		0.022	-0.048**		0.025	-0.046
		(1.23)	(-2.14)		(0.17)	(-0.41)
Age		-0.037	-0.231		0.268	0.123
		(-0.88)	(-1.05)		(1.21)	(0.17)
ROA		0.091	0.521		0.050	1.347
		(0.36)	(1.28)		(0.05)	(0.86)
SOE		-0.044	0.025		-0.572***	-0.708
		(-1.43)	(0.29)		(-2.65)	(-1.05)
Big 4 Auditor		-0.017	-0.022		-0.466*	-0.003
		(-0.31)	(-0.42)		(-1.94)	(-0.02)
Event Type FE	No	Yes	Yes	No	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes
Industry FE	No	Yes	No	No	Yes	No
Firm FE	No	No	Yes	No	No	Yes
# of obs.	11,865	11,865	11,865	11,865	11,865	11,865
R^2	0.082	0.212	0.312	0.084	0.162	0.285

Table 3: Foreign Investors

The dependent variable is "Tone" in columns 1 and 3 and is "Sentiment" in columns 2 and 4. The sample period is 2007-2014. The sample contains firms whose shareholders include QFII investors and matched ones without QFII investors. At firm-quarter level, we match each firm with QFII investor with one without QFII investors by industry, size and book to market ratio. The unit of analysis is the corporate press release observations. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	With QFII		Without QFII	
	Tone	Sentiment	Tone	Sentiment
	(1)	(2)	(3)	(4)
Foreign Event × Google Exit	0.188	1.530	0.710***	2.886**
	(0.65)	(1.07)	(2.71)	(2.08)
Foreign Event	0.599***	2.100***	0.276**	1.656***
	(3.40)	(13.34)	(2.45)	(2.94)
Google Exit	-0.129	-0.324	-0.087	0.230
	(-1.16)	(-0.68)	(-0.76)	(0.38)
Size	0.278	0.684	0.131	0.890
	(1.55)	(0.88)	(0.93)	(1.11)
Book to Market	0.034	-0.122	0.024	-0.392
	(0.67)	(-0.33)	(0.28)	(-1.00)
Age	0.141	1.794	-0.003	0.230
	(0.42)	(1.17)	(-0.01)	(0.06)
ROA	2.569**	8.376	-0.361	-6.695
	(2.13)	(1.44)	(-0.39)	(-1.31)
SOE	1.855**	-2.552	-0.687**	-2.889
	(1.97)	(-0.57)	(-2.34)	(-1.46)
Big 4 Auditor	0.092	-2.435***	-0.553**	-0.904
	(0.44)	(-3.48)	(-2.29)	(-0.87)
Event Type FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
# of obs.	1,784	1,784	1,784	1,784
R^2	0.409	0.354	0.450	0.424

Table 4: Analysts Affiliated with Foreign Brokers

The dependent variable is "Tone" in columns 1 and 3 and is "Sentiment" in columns 2 and 4. The sample period is 2007-2014. The sample contains firms that are covered by analysts affiliated with foreign brokers and matched ones covered by analysts affiliated with domestic brokers. At firm-quarter level, we match each firm covered by analysts from foreign brokers with one covered by analysts affiliated with domestic brokers by industry and size. The unit of analysis is the corporate press release observations. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Covered by Analysts from Foreign Brokers		Covered by Analysts from Domestic Brokers	
Dependent Variable	Tone	Sentiment	Tone	Sentiment
	(1)	(2)	(3)	(4)
Foreign Event × Google Exit	0.004	0.209	0.008***	0.342*
	(1.00)	(1.26)	(4.36)	(1.87)
Foreign Event	0.004	0.208**	0.003	0.218**
	(1.17)	(2.51)	(1.59)	(2.21)
Google Exit	-0.001	0.056	-0.007*	-0.255
	(-0.34)	(0.75)	(-1.75)	(-1.32)
Size	0.001	0.049	0.003**	0.062
	(1.20)	(0.50)	(2.02)	(0.65)
Book to Market	0.000	-0.058	-0.000	0.007
	(0.29)	(-1.34)	(-0.04)	(0.11)
Age	0.007	0.616	0.005	0.198
	(1.44)	(1.39)	(0.77)	(0.85)
ROA	0.001	0.377	0.011	0.424
	(0.04)	(0.51)	(0.64)	(0.82)
SOE	0.001	-0.014	0.001	0.171***
	(0.46)	(-0.27)	(0.29)	(2.81)
Big 4 Auditor	0.006***	0.199	-0.004	0.069
	(2.87)	(1.17)	(-1.55)	(1.01)
Event Type FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
# of obs.	1,635	1,635	1,635	1,635
R^2	0.411	0.377	0.512	0.434

Table 5: Retail Ownership

The dependent variable is "Tone" in columns 1 and 3 and is "Sentiment" in columns 2 and 4. The sample period is 2007-2014. We split the sample by the median level of retail ownership, calculated as the number of retail investors scaled by the number of institutional investors. The unit of analysis is the corporate press release observations. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Low Retail Ownership		High Retail Ownership	
	Tone	Sentiment	Tone	Sentiment
	(1)	(2)	(3)	(4)
Foreign Event × Google Exit	0.407	1.804	0.614**	2.571**
	(1.34)	(1.46)	(2.54)	(2.09)
Foreign Event	0.418*	2.323***	0.201*	1.275***
	(1.90)	(4.04)	(1.69)	(3.09)
Google Exit	-0.166	0.066	-0.293***	-1.197**
	(-1.21)	(0.12)	(-2.69)	(-2.47)
Size	0.057	0.567**	0.152***	0.632*
	(0.78)	(2.19)	(2.76)	(1.88)
Book to Market	0.033	0.122	-0.105***	-0.342*
	(0.77)	(0.48)	(-3.68)	(-1.93)
Age	-0.053	1.238	-0.369	-0.717
	(-0.11)	(0.62)	(-1.15)	(-0.54)
ROA	-0.077	-0.006	0.846*	2.574
	(-0.12)	(-0.00)	(1.91)	(1.15)
SOE	-0.032	-1.655**	0.068	-0.757
	(-0.17)	(-2.23)	(0.50)	(-0.81)
Big 4 Auditor	0.251	0.886*	-0.191	-0.088
	(1.20)	(1.70)	(-1.29)	(-0.22)
Event Type FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
# of obs.	5,777	5,777	5,799	5,799
R^2	0.323	0.308	0.358	0.336

Table 6: Placebo Tests

This table represents the results from placebo tests. The sample period is 2007-2014. The unit of analysis is the corporate press release observations. In Panel A, column 1 reports the coefficient estimates for "Tone" (Table 2 column 3) and "Sentiment" (Table 2 column 6) using the actual date of Google's exit from mainland China. We randomly generate 200 dates within the sample period as the (pseudo) exit dates and re-estimate Table 2 columns 3 and 6 individually. Columns 2 through 7 report the distribution of the coefficients for "Tone" and "Sentiment", respectively, based on the 200 rounds of estimations. In Panel B, the dependent variable is "Tone" in columns 1 and 3 and "Sentiment" in columns 2 and 4. "Pre Exit 2009" is a dummy variable equal to one if it is after year 2008 and zero otherwise. "Pre Exit 2008" is a dummy variable equal to one if it is after year 2007 and zero otherwise. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Summary Statistics based on 200 Simulated Pseudo-Exit Dates

	Google's Exit Date	Mean	5%	25%	Median	75%	95%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Tone	0.500	0.069	-0.711	-0.320	0.069	0.376	0.742
	(2.07)	(0.53)	(-3.62)	(-1.33)	(0.32)	(1.53)	(4.92)
Sentiment	2.222	1.095	-1.344	0.071	1.122	1.760	3.308
	(1.93)	(1.16)	(-1.00)	(0.07)	(0.93)	(1.65)	(3.74)

Table 6 continued.

Panel B: Pre-existing Trends

Dependent Variable	Tone	Sentiment	Tone	Sentiment
	(1)	(2)	(3)	(4)
Foreign Event × Google Exit	0.674***	2.590**	0.604***	2.483**
	(3.01)	(2.23)	(2.74)	(2.19)
Foreign Event × Pre Exit 2009	-0.435**	-0.917		
	(-1.98)	(-1.43)		
Foreign Event × Pre Exit 2008			-0.800***	-2.009***
			(-9.76)	(-19.85)
Foreign Event	0.582***	2.308***	1.018***	3.508***
	(2.67)	(3.65)	(26.96)	(29.43)
Google Exit	-0.308***	-0.802*	-0.277***	-0.754*
	(-3.43)	(-1.87)	(-3.14)	(-1.80)
Size	0.089**	0.376*	0.097**	0.395*
	(2.13)	(1.72)	(2.34)	(1.80)
Book to Market	-0.047**	-0.044	-0.051**	-0.056
	(-2.14)	(-0.39)	(-2.42)	(-0.50)
Age	-0.231	0.122	-0.246	0.085
	(-1.04)	(0.17)	(-1.12)	(0.12)
ROA	0.537	1.382	0.487	1.261
	(1.36)	(0.89)	(1.24)	(0.80)
SOE	0.032	-0.694	0.042	-0.667
	(0.37)	(-1.03)	(0.48)	(-0.97)
Big 4 Auditor	-0.020	0.001	-0.023	-0.006
	(-0.39)	(0.00)	(-0.45)	(-0.04)
Event Type FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
# of obs.	11,865	11,865	11,865	11,865
R^2	0.314	0.286	0.315	0.286

Table 7: The Tone of Annual Reports and Google's China Exit

The dependent variable is "Tone" for columns 1, 3 and 5, and is "Sentiment" for columns 2, 4, and 6. The sample period is 2007-2014. The unit of analysis is the annual report observations. "Google Exit" is a dummy variable equal to one if an annual report is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "MNC (D1)" is a dummy variable equal to one if a firm's foreign sales exceeds 5% of its total sales during the 2007-2014 period, and zero otherwise. "MNC (D2)" is a dummy variable equal to one if a firm has any foreign sales during the pre-Google exit 2007-2010 period, and zero otherwise. "MNC (%)" is the fraction of a firm's total sales being foreign sales during the 2007-2014 period. The rest of the variables are detailed in Appendix A. All models include a constant, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Tone	Sentiment	Tone	Sentiment	Tone	Sentiment
	(1)	(2)	(3)	(4)	(5)	(6)
MNC (D1) × Google Exit	4.913**	0.130*				
	(2.51)	(1.75)				
MNC (D2) × Google Exit			3.454*	0.155*		
			(1.85)	(1.66)		
MNC (%) × Google Exit					2.180***	0.055*
					(2.91)	(1.67)
MNC (%)					1.911***	0.010
					(2.67)	(0.18)
Size	-4.314***	0.060	-4.048***	0.06	-4.235***	0.062
	(-2.93)	(1.00)	(-2.95)	(0.93)	(-2.84)	(0.93)
Book to Market	1.748	-0.023	1.415	-0.03	1.776	-0.022
	(1.15)	(-0.37)	(1.03)	(-0.48)	(1.15)	(-0.33)
Age	-6.277	-0.070	-4.668	-0.033	-7.616	-0.100
	(-0.52)	(-0.26)	(-0.40)	(-0.09)	(-0.66)	(-0.28)
ROA	35.504***	2.050***	39.251***	1.989**	42.391***	2.103**
	(2.85)	(3.96)	(2.97)	(2.48)	(3.02)	(2.56)
SOE	-5.959	0.223	-6.393*	0.2	-6.030	0.222
	(-1.59)	(1.51)	(-1.85)	(1.14)	(-1.61)	(1.23)
Big 4 Auditor	1.566	-0.389**	1.065	-0.396	1.669	-0.386
	(0.41)	(-2.00)	(0.28)	(-1.46)	(0.43)	(-1.41)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	8,567	8,567	8,567	8,567	8,567	8,567
R^2	0.626	0.576	0.630	0.576	0.628	0.576

Table 8: Earnings Quality and Google's China Exit

The dependent variable is accrual-based earnings management proxy based on the modified Jones' model in columns 1, 3 and 5, based on the Kothari-Leone-Wasley's (2005) model in columns 2, 4 and 6. The sample period is 2007-2014. The unit of analysis is the firm-year observations. "Google Exit" is a dummy variable equal to one if an annual report is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "MNC (D1)" is a dummy variable equal to one if a firm's foreign sales exceeds 5% of its total sales during the 2007-2014 period, and zero otherwise. "MNC (D2)" is a dummy variable equal to one if a firm has any foreign sales during the pre-exit 2007-2010 period, and zero otherwise. "MNC (%)" is the fraction of a firm's total sales being foreign sales during the 2007-2014 period. The rest of the variables are detailed in Appendix A. All models include a constant, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Accrual (MJones)	Accrual (KLW)	Accrual (MJones)	Accrual (KLW)	Accrual (MJones)	Accrual (KLW)
	(1)	(2)	(3)	(4)	(5)	(6)
MNC (D1) × Google Exit	0.010**	0.009**				
	(2.14)	(2.27)				
MNC (D2) × Google Exit			0.006**	0.005*		
			(1.98)	(1.68)		
MNC (%) × Google Exit					0.003**	0.003***
					(2.40)	(2.89)
MNC (%)					-0.002	-0.003*
					(-0.83)	(-1.74)
Size	0.031**	0.028**	0.010*	0.012**	0.032**	0.028**
	(2.05)	(2.53)	(1.91)	(2.25)	(2.06)	(2.55)
Book to Market	0.002	0.004	-0.004	-0.002	0.002	0.005
	(0.26)	(0.54)	(-0.84)	(-0.53)	(0.26)	(0.55)
Age	-0.004	0.01	0.001	0.014	-0.005	0.008
	(-0.19)	(0.57)	(0.09)	(1.21)	(-0.25)	(0.48)
ROA	0.102	0.243***	0.014	0.175***	0.103	0.244***
	(1.59)	(5.68)	(0.28)	(5.91)	(1.63)	(5.69)
SOE	-0.027**	-0.024**	-0.012	-0.011	-0.027**	-0.024**
	(-2.03)	(-2.14)	(-1.33)	(-1.43)	(-2.04)	(-2.14)
Big 4 Auditor	-0.005	0.002	-0.003	0.003	-0.005	0.002
	(-0.70)	(0.28)	(-0.75)	(0.63)	(-0.70)	(0.27)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	8,670	8,670	8,670	8,670	8,670	8,670
R^2	0.234	0.25	0.271	0.285	0.234	0.250

Table 9: Market Reactions

The sample period is 2007-2014. The dependent variable is "CAR[-1,+1]", defined as the 3-day cumulative abnormal stock return during the $[t-1, t+1]$ announcement window. The pre-event window for the market model to estimate the abnormal announcement period return is from day $t-120$ to day $t-30$, where t is the announcement date of the press release or annual report. The unit of analysis is at the press release observations for columns 1-4 and at the firm-year observations for columns 5-8. A firm is considered an MNC firm if "MNC (D1)" equals one, and is a domestic firm if "MNC (D1)" equals zero. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effect (corporate press release only), year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Corporate Press Releases				Annual Reports			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tone	0.001**		-0.001		0.008*		0.002	
	(2.57)		(-0.79)		(1.68)		(0.45)	
Sentiment		0.001***		0.000		0.015*		0.007
		(3.83)		(0.93)		(1.70)		(0.77)
Foreign Event × Tone			0.003***					
			(2.65)					
Foreign Event × Sentiment				0.001**				
				(2.42)				
MNC(D1) × Tone							0.014***	
							(2.70)	
MNC(D1) × Sentiment								0.018***
								(3.18)
Foreign Event			-0.006**	-0.004***				
			(-2.42)	(-2.81)				
MNC(D1)							-0.085**	-0.067***
							(-2.46)	(-3.22)
Size	0.002	0.002	0.002	0.002	-0.005	-0.006	-0.005	-0.006
	(0.69)	(0.64)	(0.69)	(0.65)	(-1.07)	(-1.15)	(-1.10)	(-1.16)
Book to Market	-0.000	-0.000	-0.000	-0.000	0.004	0.004	0.004	0.004
	(-0.14)	(-0.19)	(-0.14)	(-0.16)	(1.35)	(1.34)	(1.52)	(1.41)

Age	0.007	0.007	0.007	0.007	-0.019**	-0.020**	-0.022***	-0.021***
	(0.72)	(0.71)	(0.71)	(0.69)	(-2.48)	(-2.54)	(-2.96)	(-2.74)
ROA	-0.023	-0.024	-0.023	-0.023	-0.010	-0.010	-0.010	-0.009
	(-0.54)	(-0.56)	(-0.52)	(-0.52)	(-0.45)	(-0.43)	(-0.45)	(-0.41)
SOE	0.009	0.009	0.008	0.009	-0.002	-0.003	-0.002	-0.003
	(0.93)	(1.00)	(0.89)	(0.95)	(-0.31)	(-0.42)	(-0.28)	(-0.40)
Big 4 Auditor	-0.011**	-0.011**	-0.011**	-0.011**	0.001	0.002	0.001	0.002
	(-2.02)	(-2.04)	(-1.99)	(-2.04)	(0.15)	(0.22)	(0.18)	(0.22)
Event Type FE	Yes	Yes	Yes	Yes	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	9,231	9,231	9,231	9,231	8,350	8,350	8,350	8,350
R^2	0.128	0.131	0.129	0.132	0.185	0.185	0.187	0.186

Table 10: Insider Trading

Panel A: Insider Sales Volume

The sample period is 2007-2014. The dependent variable is "Insider Sales", computed as the sum of shares sold by insiders during the $[t, t+90]$ announcement window, where t is the announcement date of the press release or annual report, scaled by the number of shares outstanding. The unit of analysis is at the press release observations for columns 1-4 and at the firm-year observations for columns 5-8. "Google Exit" is a dummy variable equal to one if a press release or an annual report is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. A firm is considered an MNC firm if "MNC (D1)" equals one, and is a domestic firm if "MNC (D1)" equals zero. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effect (corporate press release only), year fixed effects and industry fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Corporate Press Release				Annual Report			
	Foreign Event		Domestic Event		MNC Firm		Domestic Firm	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tone × Google Exit	0.102***		-0.000		0.003**		0.001	
	(6.35)		(-0.01)		(2.14)		(0.93)	
Sentiment × Google Exit		0.008*		-0.003		0.023*		-0.014
		(1.87)		(-0.32)		(1.70)		(-1.25)
Tone	-0.074***		-0.046**		-0.000		-0.000	
	(-2.59)		(-2.39)		(-0.13)		(-0.02)	
Sentiment		-0.006		-0.003		-0.011		0.014***
		(-1.23)		(-1.05)		(-1.37)		(4.64)
Google Exit	-0.298***	-0.128***	0.085**	0.102***	-0.530**	-0.065	-0.248	0.166
	(-7.34)	(-3.06)	(2.50)	(2.58)	(-2.41)	(-0.34)	(-0.80)	(0.87)
Size	-0.063***	-0.061***	-0.056**	-0.054**	-0.025	-0.029	-0.028	-0.028
	(-5.39)	(-5.91)	(-2.39)	(-2.40)	(-0.69)	(-0.83)	(-0.80)	(-0.75)
Book to Market	0.028	0.026	0.019	0.018	-0.055	-0.060	0.005	0.004
	(0.55)	(0.53)	(0.27)	(0.26)	(-1.08)	(-1.09)	(0.12)	(0.08)

Age	-0.047	-0.037	-0.082	-0.081	-0.063	-0.043	-0.057	-0.046
	(-0.89)	(-0.68)	(-1.39)	(-1.38)	(-0.68)	(-0.46)	(-1.07)	(-0.81)
ROA	-0.289	-0.281	-1.134***	-1.127***	-1.265**	-1.245**	-1.047*	-1.032*
	(-0.61)	(-0.66)	(-4.69)	(-4.76)	(-2.34)	(-2.22)	(-1.73)	(-1.79)
SOE	-0.124***	-0.122***	-0.186***	-0.185***	-0.171***	-0.171***	-0.183***	-0.179**
	(-2.86)	(-15.85)	(-3.04)	(-3.07)	(-5.85)	(-5.88)	(-2.58)	(-2.44)
Big 4 Auditor	0.028	0.030	0.038	0.037	-0.022	-0.030	-0.100***	-0.107***
	(0.52)	(0.43)	(0.53)	(0.52)	(-0.29)	(-0.39)	(-4.46)	(-3.43)
Event Type FE	Yes	Yes	Yes	Yes	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	4,334	4,334	7,531	7,531	4,026	4,026	4,541	4,541
R^2	0.030	0.020	0.030	0.030	0.020	0.020	0.020	0.020

Table 10 Continued.

Panel B: Abnormal Returns from Insider Sales

The sample period is 2007-2014. The dependent variable is "Return from Insider Sales", defined as the 90-day cumulative abnormal stock return earned by insiders from selling the shares of the firm during the $[t, t+90]$ announcement window, multiplied by -1. The pre-event window for the market model to estimate abnormal return is from day $t-120$ to day $t-30$, where t is the announcement date of the press release or annual report. The unit of analysis is at the press release observations for columns 1-4 and at the firm-year observations for columns 5-8. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. A firm is considered an MNC firm if "MNC (D1)" equals one, and is a domestic firm if "MNC (D1)" equals zero. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effect (corporate press releases only), year fixed effects and industry fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Corporate Press Release				Annual Report			
	Foreign Event		Domestic Event		MNC Firm		Domestic Firm	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tone × Google Exit	0.039***		0.015		0.002**		0.000	
	(7.12)		(0.40)		(2.12)		(0.47)	
Sentiment × Google Exit		0.012***		0.004		0.023**		0.002
		(4.91)		(1.28)		(2.39)		(0.38)
Tone	-0.012		0.005		-0.001		-0.000	
	(-0.59)		(0.15)		(-1.37)		(-0.35)	
Sentiment		-0.008***		-0.003		-0.011		-0.008
		(-2.96)		(-1.03)		(-1.53)		(-1.63)
Google Exit	-0.204***	-0.188***	-0.242***	-0.228***	-0.558***	-0.334***	-0.288**	-0.232***
	(-5.19)	(-6.43)	(-3.36)	(-10.17)	(-3.00)	(-3.44)	(-2.30)	(-5.25)
Size	-0.009	-0.010	0.019	0.019	-0.020	-0.023	0.001	0.002
	(-0.44)	(-0.51)	(0.67)	(0.67)	(-0.84)	(-1.00)	(0.05)	(0.10)
Book to Market	0.032	0.036	0.007	0.008	0.001	0.004	0.011	0.013
	(0.99)	(1.19)	(0.25)	(0.27)	(0.03)	(0.07)	(0.27)	(0.31)

Age	-0.046	-0.042	-0.004	-0.003	-0.098**	-0.087**	0.057	0.057
	(-0.91)	(-0.89)	(-0.16)	(-0.12)	(-2.57)	(-2.39)	(0.98)	(0.98)
ROA	-0.531**	-0.534***	-0.525**	-0.528**	-0.080	-0.079	0.617***	0.614***
	(-2.52)	(-2.72)	(-2.11)	(-2.12)	(-0.74)	(-0.67)	(4.12)	(4.17)
SOE	-0.015	-0.019	-0.049*	-0.049	0.010	0.016	-0.007	-0.007
	(-0.42)	(-0.53)	(-1.65)	(-1.64)	(0.72)	(0.95)	(-0.17)	(-0.18)
Big 4 Auditor	0.005	0.007	-0.020	-0.022	-0.020	-0.023	-0.100*	-0.109**
	(0.09)	(0.12)	(-0.32)	(-0.35)	(-0.31)	(-0.34)	(-1.80)	(-2.03)
Event Type FE	Yes	Yes	Yes	Yes	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	735	735	1,246	1,246	793	793	865	865
R^2	0.120	0.120	0.080	0.080	0.150	0.150	0.120	0.120

Table 11: The Complexity of Corporate Press Releases

The dependent variable is "Ucdensity" in columns 1 and 2 and is "Cohesion" in columns 3 and 4. The sample period is 2007-2014. The unit of analysis is the corporate press release observations. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Ucdensity		Cohesion	
	(1)	(2)	(3)	(4)
Foreign Event × Google Exit	0.362***	0.360**	0.159*	0.157*
	(2.61)	(2.57)	(1.81)	(1.79)
Foreign Event	0.442***	0.442***	0.219***	0.220***
	(6.62)	(6.60)	(4.83)	(4.84)
Google Exit	-0.064	-0.062	-0.047	-0.045
	(-1.36)	(-1.25)	(-1.30)	(-1.26)
Size		0.014		-0.008
		(0.26)		(-0.39)
Book to Market		-0.042		-0.021
		(-1.56)		(-1.52)
Age		0.008		-0.107
		(0.04)		(-1.44)
ROA		0.657		-0.053
		(1.30)		(-0.38)
SOE		-0.003		0.013
		(-0.04)		(0.41)
Big 4 Auditor		0.063**		0.016
		(2.25)		(0.43)
Event Type FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES
# of obs.	11,865	11,865	11,865	11,865
R^2	0.570	0.570	0.349	0.349

Table 12: Accrual Volatility and Google's China Exit

The dependent variable is accrual volatility based on Dechow and Dichev (2002). The sample period is 2007-2014. The unit of analysis is the annual report observations. "Google Exit" is a dummy variable equal to one if an annual report is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "MNC (D1)" is a dummy variable equal to one if a firm's foreign sales exceeds 5% of its total sales during the 2007-2014 period, and zero otherwise. "MNC (D2)" is a dummy variable equal to one if a firm has any foreign sales during the pre-exit 2007-2010 period, and zero otherwise. "MNC (%)" is the fraction of a firm's total sales being foreign sales during the 2007-2014 period. The rest of the variables are detailed in Appendix A. All models include a constant, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	(1)	(2)	(3)
MNC (D1) × Google Exit	0.015***		
	(3.19)		
MNC (D2) × Google Exit		0.011**	
		(2.52)	
MNC (%) × Google Exit			0.004***
			(2.99)
MNC (%)			-0.006***
			(-3.68)
Size	0.026***	0.026***	0.026***
	(4.45)	(4.41)	(4.50)
Book to Market	0.008*	0.008**	0.008**
	(1.92)	(2.07)	(2.07)
Age	0.008	0.007	0.007
	(0.46)	(0.40)	(0.37)
ROA	0.104***	0.108***	0.108***
	(4.69)	(4.72)	(4.71)
SOE	-0.000	-0.001	-0.000
	(-0.03)	(-0.06)	(-0.04)
Big 4 Auditor	-0.012	-0.013*	-0.013*
	(-1.62)	(-1.67)	(-1.66)
Year FE	Yes	Yes	YES
Firm FE	Yes	Yes	YES
# of obs.	8,299	8,299	8,299
R^2	0.528	0.526	0.528

Table 13: Opportunistic Insider Sales

Panel A: Opportunistic Insider Sales Volume

The sample period is 2007-2014. The dependent variable is "Opportunistic Insider Sales" during the $[t, t+90]$ announcement window, where t is the announcement date of a press release or an annual report. The unit of analysis is press release observations for columns 1-4 and annual report observations for columns 5-8. "Google Exit" is a dummy variable equal to one if a press release or an annual report is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. A firm is considered an MNC firm if "MNC (D1)" equals one, and is a domestic firm if "MNC (D1)" equals zero. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effect (corporate press releases only), year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Corporate Press Release				Annual Report			
	Foreign Event		Domestic Event		MNC Firm		Domestic Firm	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tone × Google Exit	0.073***		-0.006		0.003**		0.002	
	(4.92)		(-0.28)		(2.28)		(0.98)	
Sentiment × Google Exit		0.009**		-0.001		0.020*		-0.014
		(2.16)		(-0.10)		(1.73)		(-1.56)
Tone	-0.043**		-0.031*			-0.012		0.012***
	(-2.16)		(-1.91)			(-1.47)		(5.12)
Sentiment		-0.006		-0.006**	-0.000		-0.000	
		(-1.35)		(-2.48)	(-0.26)		(-0.15)	
Google Exit	-0.216***	-0.056	0.103***	0.099***	-0.545**	-0.061	-0.261	0.168
	(-5.77)	(-0.88)	(3.54)	(3.01)	(-2.57)	(-0.36)	(-0.87)	(0.94)
Size	-0.060***	-0.086***	-0.060***	-0.059***	-0.023	-0.031	-0.016	-0.016
	(-6.73)	(-6.14)	(-3.67)	(-3.70)	(-0.64)	(-1.01)	(-0.48)	(-0.44)
Book to Market	-0.027	-0.037	-0.035	-0.036	-0.045	-0.061	-0.010	-0.012
	(-0.73)	(-1.15)	(-1.02)	(-1.04)	(-0.94)	(-0.77)	(-0.23)	(-0.26)
Age	-0.028	-0.040	-0.090*	-0.089*	-0.044	0.013	-0.065	-0.054
	(-0.42)	(-0.82)	(-1.88)	(-1.84)	(-0.52)	(0.12)	(-1.02)	(-0.78)

ROA	-0.678**	-0.874***	-0.888***	-0.884***	-1.176**	-1.189**	-1.105*	-1.087*
	(-2.58)	(-2.71)	(-5.61)	(-5.53)	(-2.11)	(-2.10)	(-1.89)	(-1.95)
SOE	-0.164***	-0.235***	-0.166***	-0.166***	-0.155***	-0.151***	-0.146***	-0.143**
	(-3.10)	(-3.17)	(-2.63)	(-2.66)	(-5.14)	(-7.10)	(-2.67)	(-2.48)
Big 4 Auditor	0.035	0.118**	0.058	0.057	-0.017	-0.072	-0.085***	-0.093***
	(0.70)	(2.55)	(0.92)	(0.91)	(-0.23)	(-0.71)	(-3.80)	(-2.79)
Event Type FE	Yes	Yes	Yes	Yes	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	4,334	4,334	7,531	7,531	4,026	4,026	4,541	4,541
R^2	0.04	0.05	0.03	0.03	0.02	0.02	0.02	0.02

Table 13 Continued.

Panel B: Returns from Opportunistic Insider Sales

The sample period is 2007-2014. The dependent variable is "Return from Opportunistic Insider Sales", defined as the abnormal stock returns earned by insiders from opportunistic sales of firm shares during the $[t, t+90]$ announcement window, where t is the announcement date of the press release or annual report. We compute "Return from Opportunistic Insider Sales" by accumulating the abnormal stock return over a market model from the date when an insider initiates an opportunistic sales of firm shares to the end of the event window, $t+90$, and multiplied by -1. The pre-event window for the market model to estimate abnormal return is from day $t-120$ to day $t-30$. The unit of analysis is at the press release observations for columns 1-4 and annual report observations for columns 5-8. "Google Exit" is a dummy variable equal to one if a press release or an annual report is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. A firm is considered an MNC firm if "MNC (D1)" is one, and is a domestic firm if "MNC (D1)" equals zero. The rest of the variables are detailed in Appendix A. All models include a constant, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both the firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Corporate Press Release				Annual Report			
	Foreign Event		Domestic Event		MNC Firm		Domestic Firm	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Tone × Google Exit	0.045***		0.029		0.002**		0.000	
	(3.75)		(0.84)		(2.23)		(0.58)	
Sentiment × Google Exit		0.015***		0.004		0.023***		0.003
		(4.96)		(1.45)		(2.61)		(0.41)
Tone	-0.022		0.010		-0.001		0.000	
	(-0.71)		(0.32)		(-1.22)		(0.03)	
Sentiment		-0.011***		-0.001		-0.012*		-0.006
		(-3.14)		(-0.24)		(-1.85)		(-0.92)
Google Exit	-0.253***	-0.237***	-0.262***	-0.227***	-0.563***	-0.332***	-0.306***	-0.246***
	(-6.29)	(-8.64)	(-3.80)	(-7.68)	(-3.22)	(-3.66)	(-3.26)	(-4.75)
Size	-0.019	-0.019	0.017	0.018	-0.024	-0.028	0.008	0.008
	(-1.09)	(-1.10)	(0.68)	(0.71)	(-1.06)	(-1.22)	(0.38)	(0.39)
Book to Market	0.005	0.011	-0.021	-0.020	0.010	0.012	0.006	0.008

	(0.13)	(0.31)	(-0.68)	(-0.61)	(0.20)	(0.24)	(0.17)	(0.19)
Age	-0.055	-0.053	-0.013	-0.013	-0.095***	-0.082***	0.039	0.041
	(-1.06)	(-1.09)	(-0.48)	(-0.45)	(-2.73)	(-2.66)	(0.79)	(0.83)
ROA	-0.429**	-0.444**	-0.468**	-0.475**	-0.026	-0.019	0.607***	0.606***
	(-2.46)	(-2.55)	(-2.11)	(-2.15)	(-0.24)	(-0.15)	(4.20)	(4.15)
SOE	0.009	0.003	-0.016	-0.018	0.024	0.030	-0.017	-0.016
	(0.26)	(0.07)	(-0.66)	(-0.76)	(1.22)	(1.35)	(-0.41)	(-0.40)
Big 4 Auditor	0.031	0.030	0.006	0.001	0.011	0.002	-0.092	-0.100
	(0.70)	(0.64)	(0.12)	(0.02)	(0.32)	(0.05)	(-1.48)	(-1.64)
Event Type FE	Yes	Yes	Yes	Yes	No	No	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	733	733	1,234	1,234	732	732	820	820
R^2	0.12	0.13	0.08	0.08	0.15	0.15	0.13	0.13

Table 14: Controlling For Local Economic Environment

This table re-estimate the baseline regression, including additional control for the economic growth of the country in the year which the foreign event occurs. The dependent variable is "Tone" in columns 1 through 4 and is "Sentiment" in columns 5 through 8. The sample period is 2007-2014. The unit of analysis is the corporate press release observations. "Google Exit" is a dummy variable equal to one if a press release is issued after March 23, 2010, when Google terminated its operations in mainland China, and zero otherwise. "Foreign Event" is a dummy variable equal to one if a press release is about material events occurred outside the mainland China, and zero otherwise. "Local GDP Growth" and "Local GDP Growth (t-1)" are the GDP growth rates of the country in which the foreign event in the news release takes place in year t and year $t-1$, respectively. These variables are set to China's GDP growth rates at year t and year $t-1$ if the news release is about the domestic event. The rest of the variables are detailed in Appendix A. All models include a constant, event type fixed effects, year fixed effects and firm fixed effects, but the coefficients are not tabulated. T-statistics based on robust standard errors clustered at both firm and year levels are in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Tone				Sentiment			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Foreign Event × Google Exit	0.473**	0.419*	0.568**	0.466*	2.224**	2.163**	2.599**	2.358**
	(2.02)	(1.85)	(2.24)	(1.82)	(2.06)	(1.97)	(2.08)	(2.09)
Foreign Event	0.389**	0.510***	0.323*	0.480**	1.754***	1.890***	1.495***	1.766***
	(2.24)	(2.97)	(1.84)	(2.41)	(4.20)	(4.78)	(4.95)	(5.23)
Google Exit	-0.222**	-0.205**	-0.376***	-0.385***	-0.649	-0.629	-1.255	-1.269*
	(-2.44)	(-2.35)	(-2.59)	(-3.00)	(-1.61)	(-1.55)	(-1.63)	(-1.67)
Size	0.095**	0.093**	0.095**	0.090**	0.388*	0.385*	0.387*	0.377*
	(2.25)	(2.17)	(2.27)	(2.09)	(1.79)	(1.79)	(1.77)	(1.70)
Book to Market	-0.048**	-0.042*	-0.047**	-0.040*	-0.046	-0.039	-0.046	-0.034
	(-2.11)	(-1.90)	(-2.13)	(-1.82)	(-0.41)	(-0.35)	(-0.41)	(-0.29)
Age	-0.225	-0.225	-0.228	-0.220	0.122	0.121	0.110	0.137
	(-1.03)	(-1.01)	(-1.03)	(-0.94)	(0.17)	(0.17)	(0.15)	(0.19)
ROA	0.530	0.551	0.536	0.573	1.346	1.370	1.371	1.442
	(1.30)	(1.36)	(1.32)	(1.40)	(0.87)	(0.88)	(0.89)	(0.93)
SOE	0.027	0.028	0.021	0.021	-0.708	-0.707	-0.730	-0.730
	(0.31)	(0.31)	(0.25)	(0.24)	(-1.05)	(-1.04)	(-1.09)	(-1.07)

Big 4 Auditor	-0.022	-0.015	-0.019	-0.012	-0.003	0.004	0.008	0.015
	(-0.42)	(-0.31)	(-0.36)	(-0.25)	(-0.02)	(0.02)	(0.04)	(0.09)
Local GDP Growth	0.455*	-0.136	0.016	-0.952**	-0.034	-0.701	-1.761	-3.464
	(1.81)	(-0.39)	(0.06)	(-2.43)	(-0.02)	(-0.32)	(-1.08)	(-1.24)
Local GDP Growth (t-1)		1.159**		1.675**		1.307		2.918
		(2.28)		(2.08)		(0.77)		(1.23)
Local GDP Growth × Google Exit			0.765**	1.329***			3.012	4.516
			(2.29)	(3.58)			(1.15)	(1.04)
Local GDP Growth (t-1) × Google Exit				-0.790				-2.446
				(-0.70)				(-0.67)
Event Type FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	11,865	11,865	11,865	11,865	11,865	11,865	11,865	11,865
R^2	0.312	0.314	0.312	0.314	0.285	0.285	0.286	0.286