The (In)Visibility of Political Connections

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Abstract

Prior literature suggests that political connections are valued by the market, even in some settings where the connections are not publicly disclosed. Importantly, (accurate and timely) pricing of connections depends on how well the connections are known. Using Chinese corruption investigations that lead to loss of connections, we find that the important political connections we examine *are largely invisible* to the market until the (later) revelation that firms lose the connections - no evidence suggests that the market reacts to an earlier event that already indicates loss of the connections' value. In contrast, the connections are visible to at least some institutional investors as they react significantly to the initial event, but their sales are not reflected into the stock prices due to the relatively small institutional ownership in China. The lack of visibility leads to a significant delay in the pricing of the shock to the connections' value.

Key words: Political Connections; Visibility, Corruption; China; Anti-Corruption Campaign; Information; Institutional Investors; Retail Investors

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1. Introduction

Prior literature suggests that political connections bring various benefits to the firms in many settings (e.g., Khwaja and Mian 2005; Faccio, Masulis, and McConnell 2006) and that they are valued by the stock market. The literature on stock-market pricing of political connections involves two different types of connections – connections that are publicly disclosed (e.g., Faccio 2006; Ferguson and Voth 2008; Acemoglu, Johnson, Kermani, Kwak, and Mitton 2017) and connections that are not disclosed (e.g., Fisman 2001; Johnson and Mitton 2003; Hung, Wong, and Zhang 2015; Liu, Shu, and Wei 2017; Acemoglu, Hassan, and Tahoun 2018). However, extant research does not clearly distinguish the two types in the discussion of the pricing mechanism. Importantly, prior studies show that the level of transparency affects the accuracy of performance forecasts and asset valuation (e.g., Hope 2003). The public disclosure of connections could facilitate pricing because the connections *per se* are transparent to investors. In comparison, the non-disclosed connections, especially when used by firms for rent-seeking purposes, are often difficult for external investors to observe even if they are highly valuable because such connections are often in legal gray areas, if not outright illegal. Thus, the pricing of non-disclosed, implicit connections could be complicated by its degree of visibility. In this paper, we make use of a unique setting that helps us to identify whether firms' political connections, when not publicly disclosed, *are visible* (*or known*) to the market.

The research question has clear tension. On one hand, due to its secrecy, it is possible that the information on firms' connections is known only to the connected officials and firm managers but remains largely invisible to the market participants despite the value of the information. On the other hand, it is also possible that firms' political connections are visible to - or can be inferred by - the capital markets. There are numerous reasons that this could be the case. For example, building a connection may require considerable work by a firm (e.g.,

Claessens, Feijen, and Laeven 2008; Li, Meng, Wang, and Zhou 2008), and external parties could decipher the relationship in the process. Similarly, if a firm seeks rents through a connected official, such as winning a project through a connected official, the connection may be inferred by the firm's competitors. Prior work shows that sophisticated market participants often possess private information, including politics-related information (e.g., Wong, Wong, and Zhang 2017). It is possible that sophisticated investors such as institutions can obtain private information from informal communication with firm managers (especially in environments without Regulation Fair Disclosure - type rules). Such information could be diffused through their social networks (e.g., Cohen, Frazzini, and Malloy 2008, 2010), and consequently it could reach the market and get impounded into the stock price.

The issue of visibility is important for two reasons. First, prior research studies the market pricing of non-disclosed connections without discussing their visibility. However, the degree of visibility affects the reliability and completeness of the pricing of connections, an issue less considered in the literature. The pricing of political connections can be more accurate and complete if the connections are widely known to the market, and less reliable otherwise.[1]

Second, the value of political connections is frequently subject to external shocks, such as politicians' health-condition changes (Fisman 2001), sudden deaths (Faccio and Parsley 2009), relocation (Piotroski and Zhang 2014), and corruption investigation (Hung et al. 2015; Liu et al. 2017). The speed of price discovery concerning these external shocks to firm value depends crucially on the visibility of connections. The impact of external shocks can quickly get incorporated into the stock prices if the connections are visible, otherwise there could be a significant delay.

[1] For example, Faccio and Parsley (2009) estimate the value of political connections by looking at the market reactions to all firms located in the hometown of politicians who suddenly die. In such settings, visibility of the connections is important for the completeness and reliability of market pricing. If the connections are invisible, it is difficult for the market to reliably identify the firms connected with the politicians among all the hometown firms. The market has to either impose a homogeneous reaction to all firms (either connected or unconnected) or "guess" the firms that are more likely connected. Either way could lead to market pricing that is less reliable.

To study the visibility of political connections, we make use of a unique Chinese setting in which a large number of high-ranking government officials were charged with corruption as a direct result of President Xi Jinping's anti-corruption campaign. Our focus centers on a sample of political connections that involve rent-seeking. These types of connections are widely present and are important subjects in the literature of political connections (e.g., Fisman 2001; Fan et al. 2007, Butler, Fauver, and Mortal 2009; Correia 2014; Piotroski and Zhang 2014; Fisman and Wang 2015; Hung et al. 2015; Acemoglu et al. 2017; Liu et al. 2017). Importantly, to facilitate the campaign, President Xi's government allowed extensive media coverage on the details of most cases (e.g., cases involving individuals who bribe politicians). We are thus able to identify a sizeable sample of ex-post *confirmed official-firm interconnections*.

The uniqueness of the research design is that we focus on cases that involve two event dates: both (1) a date on which the information of a government official being investigated is available to the market - the official date, or **O date**, and (2) a date on which the information of a firm or a manager being involved in a scandal *due to* connection with the investigated official is made public to the market - the manager date, or **M date**. We require that the O date precedes the M date. To the extent that losing the connections and getting involved in corruption cases is harmful to the firm, we hypothesize that a negative market reaction could happen on the O date, at some point during the O - M interval, or on the M date. If the connections are *visible* to the market *before* the O date, then the market should react on the O date because the O-date event indicates (1) the loss of value of the connections and (2) a significant increase in the likelihood of a firm involving in corruption cases.[2] If the political connections are invisible on the O date but are gradually revealed to the market between the O date and the M date, then we

[2] The subsequent corruption involvement is *not* a necessary condition to the O-date market reactions as long as the connections are valuable. The value of connections is lost on the O date, which should lead to reactions if visibility is available, regardless of the likelihood of corruption involvement.

should observe negative market reactions during the O – M interval. If the political connections are *invisible*, then we would not observe negative reactions until the M date.

We hand-collect data on investigated politicians and connected companies from 2012 (November), when President Xi took office and launched his anti-corruption campaign, to 2016 (April). We crawl all online coverage from both domestic and foreign sources (including internet sources that are blocked by the Chinese government) on the connections between the politicians and Chinese public companies being investigated. From our search, we obtain 151 *confirmed* politician-firm relations involving 70 corrupt officials and 117 firms for which the O date precedes the M date, forming our group of interest. Additionally, we obtain 48 observations for which the connections are clearly visible to the market prior to the O date (i.e., the *Clearly-Visible* group). We conduct extensive searches to verify the exact timing that the information first becomes available to the market.

We find that on the M date, firm stock prices drop by 1.5% on average. We also document significant aggregate net sales by institutional investors on the M date, suggesting that the revelation provides new information to them. We further show that both the market reaction and institutional sales are greater for cases involving the highest-ranking politicians, indicating that loss of higher-profile connections and involvement in higher-profile cases have more pronounced negative effects for firms. To corroborate, we verify that both the names of the firm and the connected officials have significant *abnormal searches* in the Baidu search index on the M date, supporting the idea that the negative effects on the M date are a result of the firm being involved in the politician's cases instead of other contemporaneous firm-specific events. These results suggest that losing the connections and being involved in a corruption scandal is a highly negative event for a firm.

Next, we do *not* find that, on the (earlier) O date, the news of the investigation of the connected officials significantly impacts the connected firms' stock prices. Similarly, on the O

date, there is no significant increase in the Baidu search index for the firm name. These results are surprising, indicating that the market and the Baidu searchers do not link the firms to the investigated officials on that date and do not recognize that the value of the connections is lost. That is, the market, overall, does not appear to have information about the connections between the firms and the politicians in our sample.

However, interestingly, we do find significant aggregate net sales by institutional investors on the O date, suggesting that the political connections are not entirely invisible and that some institutional investors are cognizant of such information. Importantly, the institutional sales are significantly greater for the cases involving the highest-ranking politicians, while politicians' ranking does not affect the market reactions on the O date.

The above results also suggest that these institutional investor sales do not significantly affect the stock price. This is probably due to the small ownership and trading volumes of institutional investors in China (e.g., Bailey, Cai, Cheung, and Wang 2009; Yoon 2018). Also, due to their secret nature, the connections are likely only known by a small group of *informed* institutions (as opposed to *uninformed* investors including *uninformed* institutions).

We use a group of politician-firm connections that are publicly available prior to the O date (i.e., the *Clearly-Visible* group) as an additional group to further assess our primary findings. We find that in this sample, the market does react negatively and significantly on the O date. Specifically, the average abnormal return in the (0, 1) window is -2.0%. This result suggests that the market does react when connections are visible and supports the idea that the non-results in the O-date test for our main group of interest is *not* due to market inefficiency but more likely due to a lack of visibility.

We conduct a battery of tests to shed light on whether the information gradually flows into the market after the O date. We find no evidence of underperformance in our group of interest in various windows in the 60-trading-day periods that immediately follow the O date

or precede the M date. Overall, the results imply that very limited political connections-related information flows into the market following the O date, and that the connections remain largely invisible prior to the M date. In addition, we address two potential alternative explanations: (1) The no reactions on the O date may be due to information leakage *prior to* the O date. (2) The no reactions on the O date may be due to the market's belief that the risk of the firms' subsequent involvement is low. Our analyses suggest that our results are not driven by these alternative explanations.

Our study makes the following contributions. First, unlike prior literature that focuses on *value* (e.g., Faccio 2006; Berkman, Cole, and Fu 2010; Acemoglu et al. 2017), this is the first paper to investigate the *visibility* of political connections. We find that many political connections in our setting remain largely *invisible* to the majority of the market participants (i.e., the individual investors and some institutional investors) despite their significance to the firms. The price discovery happens only when the connections are formally revealed. Consequently, the invisibility of political connections leads to significant economic consequences - a considerable delay in the price discovery of the impact of the O-date event with a magnitude equal to the length of the O-M interval (the median is 93 days). More generally, invisibility of connections could significantly postpone the pricing of any external shocks to the value of connections and benefit a small group of insiders.

Second, we provide implications for understanding the market-pricing mechanism of political connections. To the extent that in some settings political connections are largely invisible, the market pricing of political connections might be less credible and complete than previously thought and deserves further investigation. For example, given the invisibility, in our setting, it is questionable whether the connections could be priced separately before the M-

date revelation. A reasonable scenario is that the market will value the firms based on cash-flow performance without pricing the (invisible) connection separately.[3]

Third, we contribute to the literature on institutional investors' private information and the diffusion of such information (e.g., Cohen, Frazzini, and Malloy 2008, 2010; Griffin, Shu, and Topaloglu 2012). Although we find that some institutional investors do possess information on political connections, such knowledge seems limited because institutional investor trading does not affect the stock prices on the O date nor in the following period. These findings also suggest that there is limited information sharing for this type of crucial and sensitive information among sophisticated investors in our setting.

Finally, our findings provide implications for research design in tests of stock-market-based valuation of political connections. Our results of lack of *ex-ante* visibility for many connections suggest caution when using information that is not available *ex ante* when identifying politician-firm connections. The connections identified in this way might not be *visible* to the market *ex ante* at the time of the event. Thus, the attempt to identify the value of connections using the event-window reactions could be complicated by the low visibility. The price discovery of the value of connections could be significantly delayed until the connections become more visible.

2. Institutional Background and Research Design

2.1 Institutional Background

China is in transition from being a centrally planned to becoming a relatively more market-based economy. During this transition, the administrative power of the government has a large impact on market activities and firms can often extract rents through the establishment

[3] Even if that is the case, the pricing of the firms with invisible connections could be less reliable and complete compared to the pricing of the firms with transparent connections.

of political connections. Prior literature shows that political connections are scarce resources for Chinese companies and that they are exploited by rent-seekers. For example, Fan, Wong, and Zhang (2007) and Piotroski and Zhang (2014) provide evidence that political connections facilitate firms' IPOs, and Lin, Mills, Zhang, and Li (2018) show that political connections help firms that engage in tax-avoidance activities.

President Xi Jinping implemented a far-reaching anti-corruption campaign after taking office in November 2012. He vowed to crack down on "both the tigers and flies," that is, on both high-ranking officials and low-level civil servants. The campaign has been highly intensive and China has witnessed major crackdowns on a monthly and even weekly basis. Until July of 2017, Xi's government has charged 287 "tigers" at the provincial and ministerial level. Geographically, these officials served in all 31 provinces. The highest-ranking officials to be charged include Zhou Yongkang, the former national security chief; Guo Boxiong, a former top general; and Ling Jihua, the former chief of the General Office of the Chinese Communist Party. Due to their prominent political positions, the investigated politicians had wide-ranging business networks in China.[4] These investigations had a major impact on Chinese companies because a large number of them, along with their top executives, were questioned as to their connections with the tigers.

A corruption investigation is typically initiated by the Central Commission for Discipline Inspection (CCDI) or its lower-level affiliates. The responsible team collects evidence and conducts an initial investigation. After they find sufficient evidence to establish likely guilt, the investigation team will inform the politician of the "Shuanggui" (Chinese: 双规) process, in which the involved politician is isolated from any form of legal counsel or family visits. The process is conducted in strict secrecy. If the politician is deemed to be guilty, he will

[4] We use the terms official and politician interchangeably in this study.

be turned over to the formal system of prosecution. The CCDI could announce the case publicly at any point during the investigation as long as sufficient evidence is collected.

Given the difficulty of launching such a large-scale campaign and potential threats from political rivals, Xi's government has made use of the media to gain public support. The government allows (or even encourages) detailed media coverage on most of the high-ranking cases, including the most prominent ones. The media often obtains information related to the corruption cases directly from the CCDI. The media can also conduct their own in-depth reporting on the cases to the extent allowed by the censorship authority of the government.[5] It is important to note that the government has implemented significant media and internet censorship on several major and sensitive cases. However, these cases were heavily covered by international media because of their importance and inherent interest from the press.

Take the crackdown of Ling Jihua as an example. On December 22, 2014, Ling was placed under investigation and removed from office. We identify this date as the O date for Ling's connections. Ling was later sentenced to life imprisonment in July of 2016. The connections between Ling and several publicly-traded companies were discovered during the investigation and the information was disseminated by the media. For example, Lou Zhongfu, a well-known Chinese entrepreneur and the cofounder and chairman of Guangsha Holding Group (stock code: 600052), was investigated on December 27, 2014 for his involvement in Ling's case (i.e., it was deemed a bribery case). The case was extensively covered by major public media. December 27, 2014 is consequently identified as the M date for Guangsha Group. Similarly, detailed coverage was given to the investigation of Ling's other connection, Beijing Beida Fangzheng Group (stock code: 000788), a well-known firm owned by Peking University. Three senior executives in Fangzheng Group were reported to be undergoing investigation

[5] Hope, Li, Liu, and Wu (2018) provide an in-depth discussion of media censorship in China.

related to Ling's case on January 5, 2015. This date is identified as the M date for Fangzheng Group.

2.2 Research Design

The main innovation in our research design is using the type of scandals that involve both the O date and the M date and inferring visibility through examining the timing of market reactions. Figure 1 shows the timeline of a typical scandal included in our sample. On the **O date**, the information that a government official is being investigated is released, but there is no evidence of any publicly available information that can be used to infer the relation between the politician and the connected firm. The O-date event indicates two things. First, the value of the political connections is likely lost.[6] Second, the risks of getting investigated for corruption cases are significantly increased for the connected firms. On the **M date**, the information on firm-politician connections is made available publicly for the first time. The M-date event for the first time reveals publicly the loss of connections and firms' involvement.[7]

We infer the visibility of political connections based on when the market reactions take place. The relations could become visible on the O date, on the M date, or at some point in the O-M interval. Accordingly, we examine the reactions on the O date, the M date, the 60-day period after the O date, the 60-day period prior to the M date, and for the entire O-M interval. We also examine the 60-day period prior to the O date to account for the possibility of information leakage prior to the O date.[8]

[6] In China, once an investigation against a government official is initiated, it is highly likely that the official will eventually be charged.

[7] We use the dates that such information becomes available to the market for the first time. In the cases when there is information leakage (i.e., reliable indication of investigation comes earlier than the governments' official disclosures), we use the first indication instead of the official disclosures. Such cases account for less than 10% of our sample of investigated politicians; including or excluding them does not affect our inferences.

[8] We delete the observations in an O-date (M-date) event window if the event window covers the M date (O date). For example, if the O-M interval is 15 trading days, in the examination of the O-date windows, we keep the observation for the (1, 10) window but delete the observation in the (1, 30) window because the latter window covers the M date. In other words, we only examine the windows *within* the O-M interval.

Prior studies using corruption settings to infer the *value* of connections point out the difficulty in disentangling the impact of loss of the value of connections from other negative impact of firms' involvement in corruption cases, such as damage to brand image (e.g., Hung et al. 2015). While disentangling the two factors is crucial in the studies on *value*, it is not a necessary condition to infer *visibility* as long as either of the following two conditions is met: (1) The connections are on average valuable; (2) the market adjusts for the increased risks of firms' involvement in corruption cases as induced by the O-date event.[9]

There are several important features of our setting. First, the sample government officials and politicians are high-ranking and their potential impact on the firms is thus considerable. Second, the politician-firm relations are *confirmed* ex post. Third, President Xi's campaign involves a large number of cases in a relatively short period, with important factors in the institutional environment, such as the degree to which the government allows media coverage on corruption cases, staying relatively stable.

We investigate three types of reactions. First, we measure reactions from the stock market using market-adjusted abnormal stock returns. Second, we use daily aggregate trading by institutional investors to examine the visibility of political connections among a group of investors who have a higher level of sophistication. We expect significant aggregate net sales by institutional investors upon negative information.

Third, we use the Baidu search index to examine the information demand of investors and the general public for these firms through examining firm-name searches. The abnormal Baidu search index (*ABN_INDEX*) on day t is measured as the natural logarithm of the Baidu search index on day t minus the median of the Baidu search index in the (t-40, t-11) window. Abnormal searches imply that information on politician-firm connections flows to the searchers

[9] Please find a complete discussion in Section 4.7.

and creates abnormal information demand.[10] Importantly, when using the Baidu index, we are able to examine the abnormal searches of both the firm names and the politician names. If we observe abnormal searches on the event date for both, it increases our level of confidence that the reactions that we observe are due to an event related to the corrupt officials instead of other confounding events.

In addition to our sample of interest, we use three additional samples to validate our findings. First, we make use of a group of companies with *ex-ante* clearly-visible political connections (i.e. the *Clearly-Visible* group). In this group, the politician-firm connections are publicly visible before the investigation of the officials (i.e., before the O date). This group includes two types of case: (1) the official (or his family) held a position in a public company; and (2) the official or his family owns shares of a public company.[11] Figure 2 shows the timeline of a typical scandal included in the *Clearly-Visible* sample. We use this group to provide more implications in the examination of the O-date reaction.

Second, we exploit a group of companies in which the top executives are investigated due to corruption, such as embezzlement or taking bribes. However, importantly they are *not* involved in any corruption cases of politicians (i.e., the *Corrupt-Manager* group). The difference between our group of interest and the *Corrupt-Manager* group is that the former involves the connections with politicians and the latter is purely a corruption event. We examine the reactions to the M date for our main group and the date of manager investigation for the *Corrupt-Manager* group. The *Corrupt-Manager* group is served as a benchmark to understand the impact of a top executive investigation (while not involving connections) on the stock price.

Third, in the examination of the abnormal returns in the O-M interval, we obtain a control sample using 1-to-1 propensity-score matching (PSM) to find comparable companies

[10] In our research design there is no need to distinguish between investor and non-investor-driven searches because we assume that the information will eventually flow into the market regardless of who searches for it.
[11] We include the closest family members: spouse, parents, children, and siblings.

for our test firms. We use firm size based on total assets (*SIZE*), the book-to-market ratio (*BTM*), leverage measured as total liabilities over total assets *(LEVERAGE*), return on assets (*ROA*), and whether the firm is a state-owned enterprise (*SOE*) in the year of the O date as the matching criteria, the annual raw return as the outcome variable, and find a control firm for each test firm in our sample. We require a Caliper distance of 0.01 to remove any significant difference between our group of interest and the control firms along the matching dimensions.

3. Data, Sample, and Descriptive Statistics

3.1 Data

We obtain data on investigations at the Department Level or higher from November 2012 to April 2016 from the website of the Central Commission for Discipline Inspection.[12,13] We search for the names of the politicians being investigated on the internet and obtain the time that the information is first available. We use this date as the O date.

We then search and read through the online coverage of the investigated officials and identify the connections between government officials and public companies. After that, we search for the combination of the politicians' names and the firms' names. We crawl all related online coverage and remove irrelevant coverage using string matching. We obtain the time that the information of an official-firm connection is first available and use this date as the M date. In our sample, for research-design purposes, we require that the O date precedes the M date.

We use similar methods to obtain data for our additional samples. First, we search for the combination of politicians' names and firms' names. We read the news and obtain a group

[12] http://www.ccdi.gov.cn/scdc/.

[13] We started to implement the data collection in April 2016 and finished in January 2017. The data-collection procedure is highly time-consuming because we read through the online coverage of every investigated government official in order to identify the politician-firm connections (including the connections that in the end do not enter our sample due to our research-design requirements as described in Section 2.2). Thus, the data of investigated officials stop in 2016 (April).

of benchmarks in which the political connections are *ex-ante* clearly visible (i.e., the *Clearly-Visible* group), as described in Section 2.2.

Second, we search for the combination of firm names and a list of corruption keywords and crawl the online coverage. We obtain a dataset containing cases in which the top executives of public companies are investigated due to corruption but without being involved in any corruption cases of politicians (i.e., the *Corrupt-Manager* group). We obtain the time that the information on such investigations is first available.

Regarding other data, we collect company financials from CSMAR. We obtain stock prices from CSMAR for firms listed on the mainland stock exchanges and from WIND for firms listed in Hong Kong. We gather data on the daily aggregate net buy/sell by institutional investors for the firms listed on the mainland stock exchanges from WIND.[14] We do not have daily institutional trading data for the firms listed in Hong Kong.

We also use data from the Baidu search index. Baidu is the most frequently used search engine in China. Prior U.S. research uses the Google Search Index as a proxy for the information demand of investors (e.g., Drake, Roulstone, and Thornock 2012) or of the public (e.g., Kearney and Levine 2015). We collect the daily Baidu search index for the firm names in our sample companies as well as the names of our sample politicians for the period of 2012-2016. We could have missing values for the Baidu search index for two reasons. First, Baidu does not disclose the search index for some companies as per the request of the companies. That is, although most of the listed firms allow Baidu to disclose the firm-name search index, some firms can choose not to disclose. Second, Baidu does not provide the search index for some politically sensitive search terms (e.g., the names of some politicians). Some search terms could

[14] The Appendix provides variable definitions.

be available initially but removed subsequently due to policy changes.[15] In sum, we obtain the Baidu search index for 90 of our 117 sample companies and for 56 of the 70 sample politicians.

3.2 Sample and Descriptive Statistics

Panel A of Table 1 shows the yearly distribution of our sample of politician-firm-interconnections (based on the year of the O date). In total, we have 151 such connections, of which 92 cases have the O date in 2014. We have relatively lower numbers for 2015 and 2016 because the statistics are based on the year of the O date and not many firms had been involved in the cases of the 2015 and 2016 crackdowns by the time we finished our data collection (January 2017). In Columns 4-5, we also show the administrative level of the connected politicians. 66% of the sample connections are with officials at the provincial/ministerial level or above (Chinese:省部级) and 34% are with officials at the departmental level. In other words, all cases involve high-ranking officials. In Columns 6-7, we present the numbers of incidents involving companies listed in mainland China and Hong Kong respectively. 83% of the connected companies are listed in mainland China and 17% are listed in Hong Kong.

Panel B of Table 1 presents the firm characteristics of our sample firms (based on the year of the O date) and Panel C compares our sample firms with all firms listed in mainland China using 2014 data as well as our benchmark sample obtained through PSM matching. We find that, compared to the universe of Chinese listed firms, our sample firms are larger, have higher book-to-market value, are more highly leveraged, and are less profitable. These differences are removed in our PSM sample that is used as a benchmark for long-window return

[15] The Baidu search index for some government officials, such as Li Chuncheng (Chinese: 李春城) and Wan Qingliang (Chinese: 万庆良), was available during our data-collection period (before January 2017) and was collected and used in our analyses. However, after March 2018, the data for these search terms are no longer provided by Baidu for political reasons. We can provide these Baidu-index data upon request.

tests. In Panel B, we also show that the mean (median) length of the O-M interval (*INTERVAL*) is 208 (93) days.

4. Results

4.1 Reactions on the M Date

We start by investigating the reactions on the M date, the date on which the firm is reported to be connected with the corrupt officials and involved in the scandals. In Table 2, we find that the market reacts highly negatively to this revelation (statistically significant at the 1% level using two-sided tests). The market-adjusted abnormal return is -1.5% on the M date itself, and -2.8% in the (0, 2) window. We also find significant abnormal net sales by institutional investors (i.e., negative *ABN_NETBUY*). *ABN_NETBUY* is the aggregate net buy by institutional investors on day t minus the median of aggregate net buy by institutional investors in the (t-40, t-11) window. These results suggest that the event comes as a shock to the market, and the abnormal sell finding suggests that the revelations are news even to more sophisticated investors. Overall, the findings highlight that losing the connections and being involved in corruption cases bring a highly negative effect for the involved firms and that the information is surprising to investors on the M date.

Next, we conduct tests to verify that the negative market reactions are due to the firms being involved in the investigation of corrupt officials instead of other contemporaneous bad news. We do this by obtaining the abnormal Baidu search index for both the names of the firms (*ABN_INDEX_FIRM*) and those of the politicians (*ABN_INDEX_OFFICIAL*). Specifically, we examine whether the M date is an eventful day for both the firms and for the connected politicians. Consistent with our prediction, we find a significant and positive abnormal Baidu search index for the firm names on days 0 and 1. Even more importantly, we find that the abnormal search index for the names of the connected politicians is the highest on days 0 and

1, and that the search index for these two days is higher than for any other day in the (-10, 10) window (significant at the one percent level). These results are consistent with the reactions on the M date most likely being due to the events related to the connected officials.[16]

4.2 Reactions on the O Date

To the extent that revelations of connections with investigated corrupt officials lead to negative outcomes, as shown on the M date, we proceed to examine whether the market reacts on the O date - the date on which the officials are first investigated. If the connections are visible to the market before the O date, we expect significant market reactions on the O date because the value of political connections (if any) is lost on the O date and the firms' subsequent involvement in the investigation can at least be partially anticipated. In Table 3, however, we do *not* find significant abnormal market reactions on the O date. That is, there is no evidence suggesting that the market realizes the potential consequences of the official investigation for these firms. Consistent with this result, we do not find a significantly positive abnormal search index for the firm names for any day of the (-10, 10) window, in spite of the highly significant abnormal search index for the politician names on the O date.[17] Overall, these findings suggest that the specific political connections that we collect are *invisible* to the majority of the market participants and to the general public before the O date.

[16] The Baidu search index for politician names, *ABN_INDED_OFFICIAL*, is significant for each day of the (-10, -1) period. This is because in this period (i.e., 10 days before the M date), most of the sample officials have already been investigated. Thus, their names tend to receive higher attention and searches than the normal no-news period. It is important to focus on days 0 and 1, in which the search volumes are higher than any of the other days. Our findings indicate that these two days are especially eventful for the politicians (due to firms' involvement in the politicians' investigation).

[17] *ABN_INDEX_FIRM* is significantly negative on days -3, -4 and -10. Note that days -3, -4, and -10 are all pre-event (thus no-news) days. Our abnormal index is calculated using the search index of a no-news period as benchmark. Thus, negative values indicate that the search volumes for these days are lower than the mean of the normal no-news period. This only indicates that these days are (even more) normal days with no interesting news related to the firm. Unlike other firm-level daily data, such as stock-trading volumes, that tend to retain a certain level of volumes for a no-news day, the Baidu index tends to be very low (or even close to zero) for a no-news day for most of the search terms of specific names (except for popular name search terms such as the names of celebrities). Therefore, negative values in the Baidu search index do not have any important interpretation in this study. The same applies to the negative Baidu index values in Table 5.

Interestingly, the results for *ABN_NETBUY* suggest that the connections are not invisible to *all* market participants. The aggregate net sales by institutional investors are significant at the one percent level on the O date (Table 3). Importantly, there are otherwise no dates with significant aggregate net transactions in the (-10, +10) window, except for the significant net sales on Day +4. These findings imply that at least some institutional investors are aware of the connections and sell on the information of the crackdown. However, it appears that the impact of their trading is not sufficiently profound to affect stock prices.

There could be several reasons why other investors do not discover and react to the net sales by institutional investors. First and most important, institutional ownership and trading volumes are small in China, where the market is strongly dominated by individual investors (e.g., Bailey et al. 2009; Yoon 2018). Second, the information on political connections could be dispersedly held by the institutions. That is, an informed institution might know only a limited number of connections but does not know other connections, making it difficult for an uninformed party to choose which institution to replicate. Meanwhile, significant aggregate net sales could be driven by portfolio adjustments, portfolio diversification, or liquidity trading instead of information. On the O date, there are no other signals to help an uninformed party to link the institutional investor sales of the firms with the politician investigation. Thus, it is easy to confuse such sales with non-information-driven sales. Finally, the sample of these events may not be large enough for the market to discover any pattern and replicate.

4.3 Alternative Explanation: Leakage before the O Date

The lack of market reactions on the O date is consistent with a lack of visibility for specific political connections. An alternative explanation could be that the information on the political investigation has been leaked prior to the O date; in that case the market reactions

would precede the O date. To examine this alternative explanation, we examine abnormal stock returns in various windows in the (-60, -1) period prior to the O date.

Table 4 shows the abnormal returns for 10-day, 30-day, and 60-day windows in the period of (-60, -1) prior to the O date. We do not find any significantly negative abnormal returns in these windows. Untabulated tests of more distant windows also do not show negative abnormal returns. In summary, we do not find that our results are driven by the possibility of information leakage.

4.4 Benchmarking on the O date: The *Clearly-Visible* Group

In this section, we examine the O-date results in a sample of *clearly-visible* politician-firm connections. In this sample of 48 events, the connections can easily be identified *ex ante* because of the politician's (or his spouse's) past or current positions within the firm or his stock ownership. Similar to our main sample, the O date in this sample indicates that the firms both lose the connections and get involved in corruption cases. Panel A of Table 5 displays the O-date results for this group. In contrast to the non-results in Table 3 (i.e., the test group), we find significant and abnormal reactions on the O date and Day +1 for the *Clearly-Visible* group. The reactions in the (0, +1) window are –2.0%. We also find significant abnormal searches for both the firm names and the names of the politicians on the O date, suggesting that it is the issues related to the charged politicians instead of other events that lead to the reactions.

Moreover, we observe some evidence of information leakage in this group. We find significant negative returns on Day -3 and Day -4, as well as significant abnormal net sales for these two days. It is interesting to note that there is no significantly positive abnormal Baidu search for either the firm names or the politician names on these two days, indicating that the scope of leakage is limited even if it does exist. In Panel B of Table 5, we find negative abnormal returns in both the (-10, -1) and the (-20, -1) window. These results also provide support for our

method of identifying leakage (if any) in Table 4. Overall, the results indicate that the non-results on the O date for our main sample are not due to market inefficiency but more likely due to the (low) level of visibility.

4.5 Cross-Sectional Factors Affecting Visibility

In this section, we examine several factors that could potentially affect our results. First, the rank of the investigated official could have an impact as higher-ranking connections could be more valuable. To capture this effect, we measure *HIGH_RANK* as an indicator variable that equals to 1 if the politician is at the provincial- or ministerial-level or above, and 0 if he is at the departmental level.

Second, the length of the O-M interval differs across firms. That is, a firm could quickly become involved in the investigation after the crackdown; alternatively, it could take months for this to happen. Consequently, we examine whether the length of this interval affects our inferences. We measure the length of the O-M interval using *INTERVAL*, the natural logarithm of one plus the length of the interval in days.

Third, the level of visibility could potentially be different across SOEs and Non-SOEs. It is possible that the connections are more visible in SOEs because the top managers of SOEs are also government officials; the connections between government officials are potentially more traceable based on their past career.

Fourth, our sample contains firms listed in both mainland China and Hong Kong. The institutional differences of the stock exchange could have an impact on our result. We thus include *HK* as an additional test variable for the cross-sectional tests (equal to one for firms listed in Hong Kong and zero for mainland-listed firms).

In Table 6, we regress our key outcome variables in the previous sections (i.e., the abnormal returns on the O date and M date, and abnormal institutional-investor net buy on the

O date and M date) on these cross-sectional factors. First, consistent with the invisibility of the connections, we do not find that *HIGH_RANK* explains the O-date market reactions (Column 1). In contrast, we find that the market reaction is greater on the M date for the cases involving high-ranking politicians. Consistent with the result in Column 3, we find that the abnormal institutional sales on the O date (Column 2) and M date (Column 4) are both significantly greater in the cases involving higher-profile cases. Importantly, these cross-sectional tests lend further support to the findings in the previous sections. Overall, the results suggest that losing a higher-ranking connection and being involved in such scandals is a more negative event for the firms.

Second, we find that *INTERVAL* is negative and significant for the regression of the M-date market reactions. This could indicate that the market is more surprised when firms are involved in more distant cases.

Third, we find that *SOE* is associated with marginally more significant market reactions. We also find significantly greater institutional net sales associated with *SOE* on the O date. This finding is consistent with either the SOE connections being more visible to the market and institutional investors or that the market participants consider that losing connections will have more negative outcomes for SOEs. We consider the visibility explanation more likely because *SOE* does not affect either the market reactions or the institutional sales on the M date, and because there is lack of theory predicting political connections to be more valuable in SOEs compared to non-SOEs.

Finally, we do not find significant differences in market reactions on the both O and M dates between the firms listed in mainland China and those listed in Hong Kong stock exchange. We do not have access to daily institutional trading data in Hong Kong so *HK* is not included in the institutional-trading tests.

4.6 Abnormal Returns in the O-M Interval

We next investigate whether the information gradually flows into the market in the period between the O date and the M date. In Panel A of Table 7, we examine the windows that immediately follow the O date and the windows that immediately precede the M date for evidence of negative returns. Of the 18 windows we consider, we do not find significantly negative abnormal returns in any of them.

Furthermore, we compare the abnormal returns of the sample firms with those in a benchmark sample. We use 1-to-1 PSM to find comparable companies for our test firms and compare the market-adjusted returns of the treatment group and the control group.[18] In Panel B of Table 7, we do not find that the two groups differ in any of the test windows.

4.7 Alternative Explanations: Low Risks of Involvement in Corruption

In this section, we discuss another alternative explanation for the lack of market reactions on the O date. Instead of invisibility, it could be that the market knows about the connections but considers that the firms have low risks in involving in corruption investigation, either because the market believes there is no corruption issues related to the firms or because the market considers that the firms will not be targeted by the government. Thus, the market does not react on the O date because it does not expect the firms' subsequent involvement.

We consider this explanation unlikely for the following reasons. Most importantly, the O-date event indicates *two* consequences – loss of connections and increased risks of getting involved. The above alternative explanation assumes that the connections with high-ranking government officials on average do not create value, which is inconsistent with prior literature. If the connections create value and if they are visible, the market will react on the O date

[18] As described in Section 2.2, we use *SIZE*, *BTM*, *LEVERAGE*, *ROA*, and *SOE* in the year of the O date as the matching criteria. These dimensions capture several known risk factors that might affect stock returns. We require a Caliper distance of 0.01. Panel C of Table 1 shows that the significant difference between our group of interest and the control firms along the matching dimensions is removed after the PSM.

regardless of the risks of corruption involvement because the value of connections is lost on the O date. The strong M-date reaction likely contains a part related to the loss of value of political connections, although it could also be partially attributed to other reasons such as loss of brand image.

The second reason that makes the alternative explanation unlikely is that, even if in an extreme case where the high-ranking political connections in our sample do not create value, the alternative explanation assumes that the market on average does not adjust for the increased risks of the firms being involved in corruption cases. Although on the O date one cannot be sure about the firms' subsequent involvement, the *ex-ante* risk of involvement is increased, and the market should adjust for it if the connections are visible.

Third, in this setting, the market prices and reactions are collectively decided by the *individual* investors and the *institutional* investors. The alternative explanation assumes that the market knows the connections but does not react. This is inconsistent with two of our main results. First, the Baidu search results show that individual investors and the public do *not* know about the connections. Second, we show that institutional investors in aggregate *know about* the connections and *do* react; they also react more when the rank of the politicians is higher.

Although our purpose is to examine visibility instead of value of the connections, to provide some additional evidence we conduct a test of the value of the connections. Specifically, we follow the empirical strategy of Hung et al. (2015) and compare the M-date market reactions against an additional sample of scandals in which top executives are investigated for corruption but are not related to any external politicians (i.e., the *Corrupt-Manager* group). The rationale is that the M-date reactions might include effects of both the loss of value of connections and of the corruption investigation, while the reactions in the *Corrupt-Manager* group involves only the impact of corruption. In Table 8, we compare the market reactions to the M date of the sample of interest and the event date of the *Corrupt-Manager* group. We use the whole sample

of the *Corrupt-Manager* group, as well as three subgroups. The first subgroup involves only the CEO, CFO, and Chairman of the Board; the second subgroup involves vice presidents of the firms; the third subgroup involves other firm managers.

We find that mean market reactions for the *Corrupt-Manager* group as well as the subgroups are insignificant. We also find that the M-date market reactions for our sample of interest are significantly more negative than those for the *Corrupt-Manager* samples at the one percent level. These findings suggest that while top executive corruption (such as CEO corruption) is likely important, the overall impact cannot be compared with the cases that involve loss of high-level political connections. The evidence suggests that at least part of the M-date reactions is related to the loss of value of connections. As discussed earlier in this section, to the extent that the connections are valuable, the alternative explanations related to the risks of corruption involvement are unlikely to drive our results.

4.8 Power of the Tests

In our primary analyses, we do not find evidence that the market reacts on the O date. Consequently, in this section, we discuss the power of the O-date tests. First, different from the non-results in market reactions on the O date, we find negative and highly significant market reactions on the M date using the same sample. It is important to note that the market-reaction tests for the two dates have similar standard errors (0.0025 for the O-date test and 0.0028 for the M-date test). Thus, the large difference in statistical significance is not driven by differences in standard errors. Moreover, we find negative and significant results for the aggregate net trading by institutional investors both on the O date and the M date.

Second, we find negative and highly significant results on the O date for the *Clearly-Visible* group in which visibility of connection is not an issue. Note that the sample size of the

Clearly-Visible group is considerably smaller than that of our main group (48 versus 151) and the standard errors are similar for the two tests (0.0024 versus 0.0025).

Third, we further conduct a bootstrapping test to obtain further evidence on the test power. Although it is difficult to prove that the O-date market reaction is statistically indistinguishable from zero, we can test to what extent the sample of O-date market reactions differs from samples randomly drawn from a population with a hypothetical negative abnormal return. We use the daily abnormal returns of all stocks in mainland China and Hong Kong stock exchanges in our sample period (2012-2016) as the "population" but add a hypothetical negative return to each observation. For example, we first add -0.4% to each observation, and thus the population has mean abnormal return of -0.4%. We randomly draw 151 observations from the population (125 observations from the mainland China stock exchanges and 26 observations from the HK stock exchange) and repeat 10,000 times with replacement. In theory, these randomly drawn samples should have a "true" mean equal to -0.4%.

In Table 9, we show the likelihood of randomly drawing a sample with mean less negative (thus with a milder reaction) than the mean of the O-date market reaction sample (-0.1%) in different populations. If the sample is drawn from a population with mean of -0.4%, for the 10,000 randomly drawn samples, the chance to obtain a sample with mean less negative than the mean that we observe on the O date (-0.1%) is small (only 7.97%). If the mean of the population is -0.5%, the chance to obtain a sample mean less negative than our O- date mean is as small as 3.11%. The bootstrapping results suggest that the "true" O-date reaction (if any) is likely to have a magnitude considerably milder than -0.4%. In comparison, the magnitude of the M-date reaction is -1.5% with a 95% confidence interval of (-2%, -0.9%).

4.9 Interpretation

We draw several conclusions from our empirical findings. First, collectively the evidence indicates that our sample political connections are *largely invisible* to the market and before the M date. We show that (1) firms' involvement in corruption cases is a highly negative event (i.e., we document strong negative reactions on the M date); (2) the market does not realize the signals sent on the O date that significantly increase the chance of a firm getting involved; and (3) the market is efficient in realizing such signals if the information regarding connections is publicly available (i.e., we find strong negative reactions on the O date for the *Clearly-Visible* group).

Second, we find that the connections are visible to some institutional investors as shown by the significant abnormal sales on the O date. Importantly we also observe significant abnormal sales by institutional investors on the M date. This finding could suggest that only a small (and perhaps very limited) group of institutional investors obtain information on political connections prior to the O date. A group of uninformed institutional investors hold the stocks until the M date and they are shocked by the firms' involvement along with the rest of the market. That is, the institutions trading on the O date are different from the ones on the M date. It is also possible that some institutional investors sell part of their holdings on the O date to adjust for the loss of the connections' value, and they sell again on the M date to adjust for the impact of the corruption investigation.

Third, we show that the market is incapable of recognizing the signals sent on the O date. Several reasons could collectively explain this result. (1) The information is known by a very limited group of investors. (2) They are able to sell only if they have stock holdings as short-selling is not allowed in China, thus the selling volume could be small and less likely to be considered significant by other investors. (3) For uninformed investors, there are no other signals on the O date to link the politician-investigation event to a specific firm. Even if they

observe significant aggregate sales by institutional investors, the sales could easily be misinterpreted as liquidity or diversification trades by one or several institutions.

Overall, these results also highlight the significant economic consequences of the lack of visibility of political connections. The O-date event should have led to a significant impact on the stock prices due to the loss of the connections and the increased likelihood of firms getting involved. However, due to the issue of invisibility, this price discovery is delayed until the M date. Meanwhile, a small group of sophisticated investors benefit from trading on the information and their trades are not recognized by the market.

Although we show that the market is unable to recognize the signals on the O date sent by both the politician-investigation event and the institutional investor sales, we do not mean to imply that the Chinese market is inefficient. Several features of the market, such as the short-selling restrictions and the very low level of institutional ownership, likely contribute to these results, however the primary reason is the *high level of secrecy of the connections*. It is important to point out that, in contrast to the inefficiency in recognizing the signals related to our sample connections, the market is quite efficient in recognizing the impact of incidents for which the information of the connections is publicly available.

5. Conclusion

The visibility of political connections is a key issue for the nature of political connections *per se* as well as the market-pricing mechanism of the non-disclosed connections. This is especially the case in the Chinese market, both because relationships and social networks are key elements in the operations of business and because politicians' power has a major impact on the success of firms' operations. Investigating the visibility of political connections facilitates our understanding of how accurate and complete the market prices politically

connected firms and how quickly the market incorporates the impact of external shocks to the value of connections into stock prices.

Using a unique setting in which both a high-ranking politician and a connected firm are involved in corruption cases (and where the politician's case precedes the firm's case), we find that connections between politicians and specific firms are largely invisible to the market even for the highly prominent connections that we examine. Specifically, the market does not realize the loss of connections and the increased threats of firms' potential involvement in corruption cases until the news of losing the connections and firms' involvement is finally made public, which leads to a large negative impact in the stock market.

Interestingly, we find that at least some institutional investors, who have relatively minor positions in China compared to individual investors, acquire information of politician connections and react on the date of the politician investigation. Again, there is no evidence that their reactions are recognized by other market participants, most likely due to the relatively lower institutional ownership in China. Consequently, the shock to the value of connections is not incorporated into the stock prices until the M date, causing a significant delay in price discovery.

Overall, our findings suggest that our sample political connections, due to their inherent secret nature, remain largely invisible to the majority of the market participants. Our study provides implications for the literature on the pricing of political connections. For example, one key issue is, given the limited visibility of political connections, whether and to what extent the market can incorporate the connections into stock prices before the connections are officially revealed. The market pricing of political connections might be less credible and complete than previously thought and deserves further investigation.

References

Acemoglu, D., Hassan, T. A., & Tahoun, A. (2017). The power of the street: Evidence from Egypt's Arab spring. *The Review of Financial Studies*, *31*(1), 1-42.

Acemoglu, D., Johnson, S., Kermani, A., Kwak, J., & Mitton, T. (2016). The value of connections in turbulent times: Evidence from the United States. *Journal of Financial Economics*, 121(2), 368-391.

Berkman, H., Cole, R. A., & Fu, L. J. (2010). Political connections and minority-shareholder protection: Evidence from securities-market regulation in China. *Journal of Financial and Quantitative Analysis*, *45*(6), 1391-1417.

Bailey, W., Cai, J., Cheung, Y. L., & Wang, F. (2009). Stock returns, order imbalances, and commonality: Evidence on individual, institutional, and proprietary investors in China. *Journal of Banking & Finance*, 33(1), 9-19.

Butler, A. W., Fauver, L., & Mortal, S. (2009). Corruption, political connections, and municipal finance. *The Review of Financial Studies*, 22(7), 2873-2905.

Claessens, S., Feijen, E., & Laeven, L. (2008). Political connections and preferential access to finance: The role of campaign contributions. *Journal of Financial Economics*, 88(3), 554-580.

Cohen, L., Frazzini, A., & Malloy, C. (2008). The small world of investing: Board connections and mutual fund returns. *Journal of Political Economy*, 116(5), 951-979.

Cohen, L., Frazzini, A., & Malloy, C. (2010). Sell-side school ties. *The Journal of Finance*, 65(4), 1409-1437.

Correia, M. M. (2014). Political connections and SEC enforcement. *Journal of Accounting and Economics*, 57(2-3), 241-262.

Drake, M. S., Roulstone, D. T., & Thornock, J. R. (2012). Investor information demand: Evidence from Google searches around earnings announcements. *Journal of Accounting Research*, *50*(4), 1001-1040.

Faccio, M. (2006). Politically connected firms. *American Economic Review*, *96*(1), 369-386.

Faccio, M., & Parsley, D. C. (2009). Sudden deaths: Taking stock of geographic ties. *Journal of Financial and Quantitative Analysis*, *44*(3), 683-718.

Faccio, M., Masulis, R. W., & McConnell, J. (2006). Political connections and corporate bailouts. *The Journal of Finance*, *61*(6), 2597-2635.

Fan, J. P., Wong, T. J., & Zhang, T. (2007). Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of Financial Economics*, *84*(2), 330-357.

Fisman, R. (2001). Estimating the value of political connections. *American Economic Review*, *91*(4), 1095-1102.

Fisman, R., & Wang, Y. (2015). The mortality cost of political connections. *The Review of Economic Studies*, 82(4), 1346-1382.

Ferguson, T., & Voth, H. J. (2008). Betting on Hitler—the value of political connections in Nazi Germany. *The Quarterly Journal of Economics*, 123(1), 101-137.

Griffin, J. M., Shu, T., & Topaloglu, S. (2012). Examining the dark side of financial markets: Do institutions trade on information from investment bank connections? *The Review of Financial Studies*, 25(7), 2155-2188.

Hope, O. K. (2003). Disclosure practices, enforcement of accounting standards, and analysts' forecast accuracy: An international study. *Journal of Accounting Research*, 41(2), 235-272.

Hope, O. K., Li, Y., Liu, Q., & Wu, H. (2018). Protecting the Giant Pandas: China's Censorship of Negative News. Working Paper, University of Toronto.

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

Johnson, S., & Mitton, T. (2003). Cronyism and capital controls: evidence from Malaysia. *Journal of Financial Economics*, *67*(2), 351-382.

Khwaja, A. I., & Mian, A. (2005). Do lenders favor politically connected firms? Rent provision in an emerging financial market. *The Quarterly Journal of Economics*, *120*(4), 1371-1411.

Kearney, M. S., & Levine, P. B. (2015). Media influences on social outcomes: The impact of MTV's 16 and Pregnant on teen childbearing. *American Economic Review, 105*(12), 3597-3632.

Li, H., Meng, L., Wang, Q., & Zhou, L. A. (2008). Political connections, financing and firm performance: Evidence from Chinese private firms. *Journal of Development Economics*, 87(2), 283-299.

Lin, K. Z., Mills, L. F., Zhang, F., & Li, Y. (2018). Do Political Connections Weaken Tax Enforcement Effectiveness? *Contemporary Accounting Research*. Forthcoming.

Liu, L. X., Shu, H., & Wei, K. J. (2017). The impacts of political uncertainty on asset prices: Evidence from the Bo scandal in China. *Journal of Financial Economics*, *125*(2), 286-310.

Piotroski, J. D., & Zhang, T. (2014). Politicians and the IPO decision: The impact of impending political promotions on IPO activity in China. *Journal of Financial Economics*, *111*(1), 111-136.

Wong, F., Wong, T. J., & Zhang, T. (2017). Does political knowledge drive the information wedge in emerging markets? Evidence from analysts of local and foreign brokerage firms in China. Working paper, University of Southern California.

Yoon, A. (2018). Credibility of Disclosures in Weak Enforcement Institutions: Evidence from Shanghai-Hong Kong Connect. Working paper, Harvard University.

Appendix: Variable Definitions

Variables	Definitions
ABN_RET	Market adjusted abnormal return, the difference between firm return and the equally-weighted market return.
ABN_NETBUY	Natural logarithm of aggregate net buy by institutional investors on day t minus natural logarithm of the median aggregate net buy by institutional investors in the (t-40, t-11) window.
ABN_INDEX_FIRM	Natural logarithm of Baidu search index of firm names on day t minus natural logarithm of the median Baidu search index in the (t-40, t-11) window.
ABN_INDEX_OFFICIAL	Natural logarithm of Baidu search index of politician names on day t minus natural logarithm of median Baidu search index in the (t-40, t-11) window.
INTERVAL	The number of calendar days between the O date and the M date.
CAR	Cumulative abnormal return.
SIZE	Lagged natural logarithm of total assets.
BTM	Book value of total assets divided by market capitalization.
LEVERAGE	Lagged financial leverage measured as total liabilities divided by total assets.
ROA	Lagged earnings divided total assets.
SOE	Indicator variable that equals one if a firm's controlling shareholder is a government entity, and zero otherwise.
HIGH_RANK	Indicator variable that equals to 1 if the politician is at the provincial- or ministerial-level or above, and 0 if he is at the departmental level.

Figure 1: The Timeline of a Typical Scandal in the Main Sample

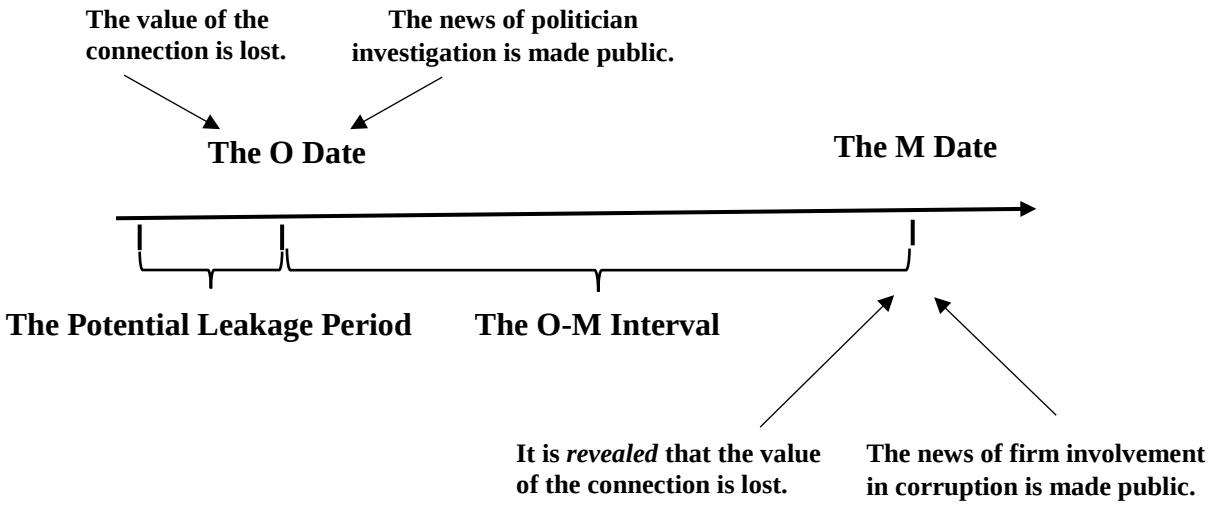

Figure 2: The Timeline of the Scandals in the Clearly Visible Group

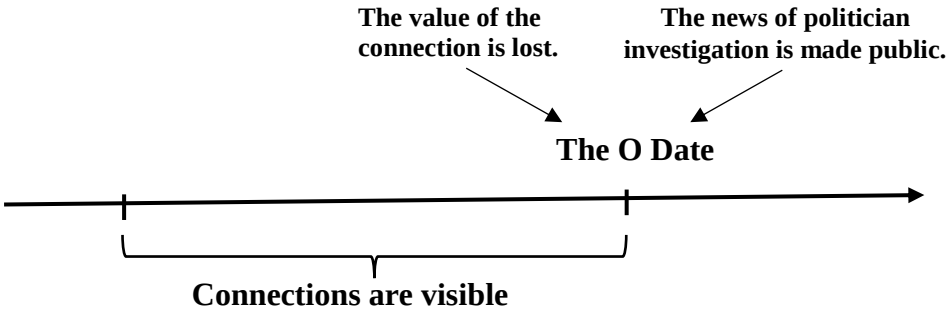

Table 1: Descriptive Statistics

Panels A and B of the table present descriptive statistics of politician-firm interconnections and firm-level data used in subsequent tables. Panel C compares firm characteristics of the main sample and the benchmark sample obtained through propensity-score matching (used in Section 4.6 and Table 6). The matching dimensions include *SIZE, BTM, LEVERAGE, ROA,* and *SOE* in the year of the O date and we require a Caliper distance of 0.01.

Panel A: Year Distribution of Politician-Firm-Interconnections

Year	Freq.	Percent	Provincial / Ministerial Level or above	Departmental Level	Mainland	Hong Kong
2012	10	6.62%	8	2	10	0
2013	22	14.57%	17	5	15	7
2014	92	60.93%	59	33	81	11
2015	23	15.23%	13	10	16	7
2016	4	2.65%	3	1	3	1
Sum	151	100%	100	51	125	26

Panel B: Descriptive Statistics of Main Variables

	# Obs.	*Mean*	*Median*	*Std*	*25th*	*75th*
INTERVAL	151	207.927	93.000	251.392	14.000	425.000
SOE	151	0.391	0.000	0.490	0.000	1.000
Size	151	23.316	22.952	2.009	21.880	24.696
BTM	151	0.557	0.406	0.573	0.257	0.660
LEVERAGE	151	0.531	0.532	0.217	0.372	0.713
ROA	151	0.030	0.030	0.065	0.013	0.058

Panel C: Firm Characteristics of the Main Sample and the Benchmark Samples

	(1)	(2)	(3) = (1) -(2)	(4)	(5)	(6) = (4) - (5)
	Main Sample	All Chinese Companies Year 2014	Difference	Post-PSM Main Sample	Post-PSM Benchmark Sample	Difference
SOE	0.391	0.389	0.002 (0.033)	0.486	0.578	-0.092 (-1.357)
Size	23.316	22.058	1.258*** (10.432)	23.227	23.421	-0.194 (-0.694)
BTM	0.547	0.323	0.224*** (12.310)	0.502	0.503	-0.001 (-0.024)
LEVERAGE	0.531	0.446	0.085*** (4.473)	0.512	0.544	-0.032 (-1.077)
ROA	0.030	0.039	-0.009 (-1.624)	0.028	0.030	-0.002 (-0.264)

Table 2: Reactions on the M Date

The table presents daily market-adjusted abnormal returns, daily abnormal net trading volumes by institutional investors, daily abnormal Baidu index of firm-name search, and daily abnormal Baidu index of politician-name search for the (-10, 10) window surrounding the M date, the date on which the information of a firm or a manager being involved in a scandal due to connection with an investigated official is made public to the market. Asterisks denote significance levels of a two-tailed t -test (∗∗∗ = 1%, ∗∗ = 5%, ∗ = 10%).

	ABN_RET		***ABN_NETBUY***		***ABN_INDEX_FIRM***		***ABN_INDEX_OFFICIAL***	
	Mean	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*
Day -10	0.0004	0.109	0.00002	0.116	-0.112	-1.597	0.332***	3.217
Day -9	-0.0004	-0.189	-0.0004	-1.319	-0.037	-0.531	0.287***	3.059
Day -8	-0.002	-0.910	0.0001	0.479	0.073	1.012	0.271***	3.029
Day -7	0.002	0.689	0.00002	0.108	0.189***	3.015	0.271***	2.886
Day -6	-0.0004	-0.164	0.0000007	0.035	0.013	0.234	0.341***	3.296
Day -5	-0.003	-1.229	-0.0003	-0.762	-0.041	-0.807	0.669***	4.454
Day -4	-0.001	-0.489	-0.0002	-0.548	-0.045	-0.577	0.655***	4.578
Day -3	0.003	1.503	-0.0001	-0.559	-0.014	-0.201	0.628***	4.847
Day -2	-0.002	-1.096	0.0001	0.428	0.084	1.057	0.583***	4.367
Day -1	-0.002	-0.860	-0.0003	-1.029	0.088	1.109	1.356***	6.621
Day 0	-0.015***	-5.337	-0.001***	-3.367	0.327***	4.566	1.945***	9.923
Day +1	-0.006	-1.448	-0.0003	-1.200	0.423***	4.435	1.845***	10.340
Day +2	-0.007**	-2.857	-0.0004	-1.410	0.179*	1.923	1.544***	9.207
Day +3	-0.0007	-0.238	-0.0003	-1.220	0.169*	1.714	1.276***	7.818
Day +4	0.002	0.648	0.0002	0.806	0.155*	1.738	1.129***	6.984
Day +5	0.0002	0.106	-0.0003	-1.166	0.084	0.987	1.099***	6.784
Day +6	-0.002	-0.715	-0.00007	-0.354	0.281***	3.677	1.071***	6.874
Day +7	-0.004	-1.560	0.00007	0.252	0.231**	2.525	1.009***	6.488
Day +8	-0.004	-1.518	-0.0001	-0.217	0.179**	2.257	0.958***	6.383
Day +9	0.005*	1.927	0.0004	0.918	0.073	1.001	0.908***	5.880
Day +10	0.003	1.259	0.0001	0.660	-0.052	0.457	0.879***	5.952

Table 3: Reactions on the O Date

The table presents daily market-adjusted abnormal returns, daily abnormal net trading volumes by institutional investors, daily abnormal Baidu index of firm-name search, and daily abnormal Baidu index of politician-name search for the (-10, 10) window surrounding the O date, the date on which the information of a government official being investigated is available to the market. Asterisks denote significance levels of a two-tailed t -test (∗∗∗ = 1%, ∗∗ = 5%, ∗ = 10%).

	ABN_RET		***ABN_NETBUY***		***ABN_INDEX_FIRM***		***ABN_INDEX_OFFICIAL***	
	Mean	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*
Day -10	0.0004	0.2127	0.00003	0.228	-0.179**	-2.337	0. 039	0.885
Day -9	-0.0004	-0.211	-0.0002	-0.980	-0.029	-0.356	-0.092	-1.310
Day -8	-0.001	-0.692	0.00001	0.070	0.053	0.750	-0.003	-0.074
Day -7	-0.0005	-0.171	0.0000006	0.058	-0.017	-0.241	0. 035	0.835
Day -6	0.0005	0.291	0.0002	0.949	-0.049	-0.709	0. 057	1.205
Day -5	0.0001	0.072	-0.0001	-0.604	-0.095	-1.207	-0.006	-0.131
Day -4	-0.0002	-0.121	-0.0003	-1.128	-0.205**	-2.364	0. 037	1.040
Day -3	-0.00001	-0.006	-0.0001	-0.219	-0.208***	-2.643	0. 036	0.621
Day -2	0.003	1.451	0.0003	1.086	0.029	0.523	0. 021	0.406
Day -1	-0.002	-0.866	-0.0002	-1.133	0.002	0.032	0. 232***	2.709
Day 0	-0.001	-0.404	-0.0008***	-2.578	0.047	0.649	4.969***	26.149
Day +1	0.0005	0.201	-0.0002	-0.619	0.059	1.184	5.069***	30.860
Day +2	-0.003	-1.205	-0.0002	-0.819	0.033	0.544	4.448***	29.141
Day +3	-0.003*	-1.710	-0.0002	-1.238	0.091	1.109	4.014***	27.089
Day +4	-0.0006	-0.282	-0.0004*	-1.889	0.001	0.019	3.787***	26.053
Day +5	0.003	1.370	-0.00003	-0.088	0.007	0.107	3.522***	23.737
Day +6	0.001	0.672	0.00005	0.218	0.082	1.038	3.463***	24.378
Day +7	-0.0005	-0.292	-0.0003	-1.083	0.031	0.434	3.275***	23.399
Day +8	-0.003	-1.527	-0.00003	-0.143	0.056	0.932	3.269***	22.397
Day +9	0.0001	0.057	0.00008	0.472	0.028	0.387	3.246***	19.757
Day +10	-0.002	-0.935	0.0003	0.899	-0.056	-0.644	3.005***	18.075

Table 4: Potential Alternative Explanation – Leakage before the O Date

The table presents cumulative market-adjusted abnormal returns in various windows prior to the O date to test for the possibility of information leakage prior to the O date. Asterisks denote significance levels of a two-tailed t -test (∗∗∗ = 1%, ∗∗ = 5%, ∗ = 10%).

EventWindow	*#Obs*	Before Official-Date	
		Mean	*t-statistic*
$CAR_{[-10,-1]}$	151	-0.0005	-0.073
$CAR_{[-20,-11]}$	151	0.009	1.140
$CAR_{[-30,-21]}$	151	-0.003	-0.459
$CAR_{[-40,-31]}$	151	-0.004	-0.633
$CAR_{[-50,-41]}$	151	0.008	1.093
$CAR_{[-60,-51]}$	151	0.006	0.915
$CAR_{[-30,-1]}$	151	0. 005	0.420
$CAR_{[-60,-31]}$	151	0.011	0.739
$CAR_{[-60,-1]}$	151	0.016	0.874

Table 5：Tests of the *Clearly-Visible* Group

The table shows tests of the *Clearly-Visible* group, in which the politician-firm connections is clearly visible due to the politicians' previous occupation in the firms and politicians' ownership of firms' shares. Panel A presents daily abnormal returns, daily abnormal net trading volumes by institutional investors, daily abnormal Baidu index for the (-10, 10) window surrounding the O date. Panel B presents cumulative abnormal returns in various windows prior to the O date. Asterisks denote significance levels of a two-tailed t -test (∗∗∗ = 1%, ∗∗ = 5%, ∗ = 10%).

Panel A：O-Date Reaction for the *Clearly-Visible* Group

	ABN_RET		***ABN_NETBUY***		***ABN_INDEX_FIRM***		***ABN_INDEX_OFFICIAL***	
	Mean	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*
Day-10	0.001	0.170	0.00004	0.124	-0.039	-0.509	-0.090	-0.839
Day -9	-0.001	-0.301	-0.00006	-0.294	-0.040	-0.508	-0.098	-0.814
Day -8	-0.004	-1.259	0.00008	0.186	0.027	0.193	-0.008	-0.066
Day -7	0.003	0.874	0.0008	1.296	0.160	2.077	-0.068	-0.535
Day -6	0.003	0.619	-0.0006	-1.151	-0.222	-1.060	-0.109	-0.830
Day -5	-0.002	-0.432	-0.0005	-1.286	-0.292*	-1.830	-0.192	-1.408
Day -4	-0.011***	-3.307	-0.0005**	-2.508	-0.089	-0.975	-0.135	-1.017
Day -3	-0.007***	-2.830	-0.0004**	-2.352	-0.119	-0.737	-0.023	-0.159
Day -2	-0.003	-0.871	0.00002	0.123	-0.083	-0.460	-0.101	-0.673
Day -1	0.006	1.423	0.0001	0.594	0.030	0.172	0.122	0.527
Day 0	-0.007*	-1.825	-0.00002	-0.093	0.360**	2.031	3.494***	8.622
Day +1	-0.013***	-4.377	-0.0002	-0.844	0.322	1.366	4.017***	10.153
Day +2	0.004	0.808	-0.0004	-0.621	0.073	0.472	3.299***	9.239
Day +3	0.003	0.726	-0.0005**	-2.473	0.153	1.578	2.744***	7.118
Day +4	-0.0002	-0.067	0.0003	0.411	-0.035	-0.228	2.412***	6.194
Day +5	-0.002	-0.578	-0.001	-1.213	0.097	1.049	2.214***	5.510
Day +6	0.003	0.846	-0.0002	-0.788	0.199**	2.367	2.291***	6.258
Day +7	-0.005	-1.276	-0.001**	-2.157	0.224***	2.793	2.003***	5.188
Day +8	-0.003	-0.959	0.0001	0.781	0.082	0.496	1.788***	4.688
Day +9	0.007*	1.821	0.0007	0.710	-0.004	-0.024	1.685***	4.430
Day +10	-0.006*	-1.899	0.00001	0.015	-0.020	-0.202	1.619***	4.297

Panel B：Information Leakage for the *Clearly-Visible* Group

Event Window	*#Obs*	Before Official-Date	
		Mean	*t-statistic*
$CAR_{[-10,-1]}$	48	-0.015*	-1.880
$CAR_{[-20,-11]}$	48	-0.027**	-2.569
$CAR_{[-30,-21]}$	48	0.002	0.242
$CAR_{[-40,-31]}$	48	-0.016	-1.271
$CAR_{[-50,-41]}$	48	0.009	0.655
$CAR_{[-60,-51]}$	48	-0.002	-0.157
$CAR_{[-30,-1]}$	48	-0.040**	-2.293
$CAR_{[-60,-31]}$	48	-0.009	-0.342
$CAR_{[-60,-1]}$	48	-0.049*	-1.881

Table 6: Cross-Sectional Differences

The table reports coefficient estimates of OLS regressions of daily market-adjusted abnormal returns and daily abnormal net trading volumes by institutional investors (on the O date and M date) on the ranking of the government officials, the O-M interval, state-ownership, and HK listing status. Control variables include *SIZE, BTM, LEVERAGE,* and *ROA* as of the years of O date and M date. See Appendix for variable definitions. T-statistics are below coefficients in parentheses. Asterisks denote significance levels (∗∗∗ = 1%, ∗∗ = 5%, ∗ = 10%).

	(1)	(2)	(3)	(4)
	ABN_RET	*ABN_NETBUY*	*ABN_RET*	*ABN_NETBUY*
	O Date		M Date	
HIGH_RANK	0.003	-0.001***	-0.013**	-0.001**
	(0.811)	(-2.541)	(-2.317)	(-2.071)
INTERVAL	-0.001	-0.000	-0.002***	0.000
	(-0.844)	(-0.026)	(-2.855)	(0.080)
SOE	0.003	-0.002***	0.016	0.000
	(0.421)	(-3.489)	(1.527)	(0.451)
HK	-0.011		-0.006	
	(-1.677)		(-1.556)	
SIZE	0.004	0.001***	-0.000	0.000
	(1.238)	(7.560)	(-0.135)	(0.732)
BTM	-0.012***	0.001***	-0.003	0.000
	(-5.354)	(3.419)	(-0.376)	(0.219)
LEVERAGE	-0.000	0.000	0.000	0.000
	(-1.509)	(0.005)	(0.171)	(0.381)
ROA	-0.001	-0.000	0.001	0.000
	(-0.992)	(-0.641)	(1.671)	(0.103)
Constant	-0.069	-0.012***	0.002	-0.006
	(-1.047)	(-8.434)	(0.032)	(-1.097)
#Obs	151	120	132	97
R^2	0.082	0.122	0.110	0.044

Table 7：Market Reactions in the O-M Interval

The table presents cumulative market-adjusted abnormal returns in various windows subsequent to the O date and prior to the M date to test for the possibility of information flowing to the market during the O-M interval. Panel A reports the results for the main sample and Panel B compares the main sample with a control group obtained through propensity-score matching. The matching dimensions include *SIZE*, *BTM*, *LEVERAGE*, *ROA*, and *SOE* in the year of the O date and we require a Caliper distance of 0.01. The pre- and post-PSM firm comparison in the matching dimensions across groups is presented in Panel C of Table 1. Asterisks denote significance levels of a two-tailed t -test (*** = 1%, ** = 5%, * = 10%).

Panel A: The Main Sample

EventWindow	After O Date		EventWindow	Before M Date	
	Mean	*t-statistic*		*Mean*	*t-statistic*
$CAR_{[+1,+10]}$	0.003	0.379	$CAR_{[-10,-1]}$	-0.004	-0.437
$CAR_{[+11,+20]}$	-0.009	-0.983	$CAR_{[-20,-11]}$	0.003	0.273
$CAR_{[+21,+30]}$	-0.012	-1.184	$CAR_{[-30,-21]}$	0.010	0.612
$CAR_{[+31,+40]}$	-0.008	-0.847	$CAR_{[-40,-31]}$	0.027**	2.034
$CAR_{[+41,+50]}$	-0.018	-1.544	$CAR_{[-50,-41]}$	0.0006	0.065
$CAR_{[+51,+60]}$	0.004	0.407	$CAR_{[-60,-51]}$	0.032	0.906
$CAR_{[+1,+30]}$	-0.019	-1.393	$CAR_{[-30,-1]}$	0.007	0.228
$CAR_{[+31,+60]}$	-0.016	-0.981	$CAR_{[-60,-31]}$	0.058	1.641
$CAR_{[+1,+60]}$	-0.034	-1.537	$CAR_{[-60,-1]}$	0.071	1.246

Panel B: 1-to-1 PSM Sample

EventWindow	Treat Group		Control Group		Difference	
	Mean	*t-statistic*	*Mean*	*t-statistic*	*Mean*	*t-statistic*
$CAR_{[o+1,m-1]}$	0.022	0.662	0.059	1.896	-0.037	- 0.829
$CAR_{[o,o+30]}$	-0.007	-0.363	0.021	1.291	- 0.028	-1.106
$CAR_{[o,o+60]}$	-0.00007	-0.003	0.016	0.614	-0.016	-0.441
$CAR_{[o,o+100]}$	0.030	0.681	-0.006	-0.130	0.036	0.574
$CAR_{[o,o+250]}$	0.007	0.096	-0.032	-0.357	0.039	0.342
$CAR_{[m-30,m-1]}$	-0.010	-0.617	0.009	0.617	-0. 019	-0.871
$CAR_{[m-60,m-1]}$	0.031	1.025	0.014	0.600	0.017	0.462
$CAR_{[m-100,m-1]}$	0.002	0.065	0.069	1.541	-0.067	-1.139
$CAR_{[m-250,m-1]}$	0.017	0.285	0.142	1.614	-0.125	-1.188

Table 8：Tests of the *Corrupt-Manager* Group

The table presents market-adjusted abnormal returns of the M date in the main group and the event date in the *Corrupt-Manager* group. The *Corrupt-Manager* group involves companies in which the top executives are investigated due to corruption, but importantly they are not involved in any corruption cases of politicians. Type 1 of the *Corrupt-Manager* group involves only the CEO, CFO, or Chairman of the Board, Type 2 involves vice presidents of the firms, and Type 3 involves other firm managers. Asterisks denote significance levels of a two-tailed t -test (∗∗∗ = 1%, ∗∗ = 5%, ∗ = 10%).

Event Window	Main Sample Group	Corrupt-Manager Group	Difference
AR_0	-0.015***	-0.002	-0.013***
	(-5.337)	(-0.822)	(-4.011)
Event Window	Main Sample Group	Corrupt-Manager Group (Type=1)	Difference
AR_0	-0.015***	-0.004	-0.011***
	(-5.337)	(-1.287)	(-2.437)
Event Window	Main Sample Group	Corrupt-Manager Group (Type=2)	Difference
AR_0	-0.015***	0.003	-0.018***
	(-5.337)	(0.660)	(-3.433)
Event Window	Main Sample Group	Corrupt-Manager Group (Type=3)	Difference
AR_0	-0.015***	-0.002	-0.013***
	(-5.337)	(-0.669)	(-3.178)

Table 9: Bootstrapping Test – Random Resampling from Population with Hypothetical Negative Abnormal Returns

The table presents results of random resampling from population with hypothetical negative abnormal returns. The daily abnormal returns of all stocks in mainland China and Hong Kong stock exchanges in our sample period (2012-2016) are used as the "population" but a hypothetical negative return is added in each observation to create population with hypothetical negative abnormal returns. The process randomly draws 151 observations from the population and repeats 10,000 times with replacement. The table shows the likelihood of randomly drawing a sample with mean less negative (thus with a milder reaction) than the mean of the O-date market reaction sample (-0.1%) in different population (from -0.6% to -0.3%).

Population Mean	Likelihood of Obtaining a Randomly Drawn Sample with Mean Less Negative than the Mean of the O Date Sample
-0.6%	0.96%
-0.5%	3.11%
-0.4%	7.97%
-0.3%	17.49%