

Internet Appendix

Is the Chinese Anti-Corruption Campaign Authentic? Evidence from Corporate Investigations

July 2021

Section A.1 Content of the Eight-point Regulation

The content of the Eight-point Regulation includes the following [China Daily (2012)].

1. *Leaders must maintain close contact with the grassroots. They must understand the real situation facing society through in-depth visits at the grassroots level. Greater attention should be focused on places where social problems are more acute, and inspection tours must be carried out more thoroughly. Inspection tours which are a mere formality should be strictly prohibited. Leaders should work and listen to the public and lower level officials; the most practical problems facing ordinary people must be tackled. For official visits, there should be no welcome banner, no red carpet, no floral arrangement or grand receptions for officials.*
2. *Meetings and major events should be strictly regulated, and their efficiency improved. Politburo members are not allowed to attend ribbon-cutting or cornerstone-laying ceremonies, or celebrations and seminars, unless they get approval from the Central Committee. Official meetings should be shortened, be specific and to-the-point, and be free of empty-talk and blather.*
3. *The issuing of official documents should be reduced.*
4. *Officials' visits to foreign countries should only be arranged when absolutely necessary, with fewer accompanying members; on most occasions, there is no need to mobilize a reception by Chinese expatriates, institutions and students at the airport.*
5. *There should be fewer traffic controls when leaders travel by car to avoid unnecessary inconvenience to the public.*
6. *The media should seek to reduce the number of news reports related to members of the Politburo, their work and their activities. The media should also seek to reduce the amount of time spent on these news pieces and minimize their scope. Such stories should only be reported depending on work needs, news value, and potential social impact.*
7. *Leaders should not publish any works by themselves or issue any congratulatory letters in their own names unless an arrangement has been made with the central authorities. Official documents without much meaningful content and without much actual importance should be withheld. Publications dedicated to senior officials' work and activities are also restricted.*
8. *Leaders must practice thrift and strictly follow relevant regulations on accommodation and cars.*

Section A.2 List of 34 Keywords and Procedures of News Search

Below is the list of 34 key words used for news searches described in Section 2.1 of the paper. English translation is provided next to the original Chinese keywords. Note that the structure of Chinese language differs from English, so some keywords in English may sound redundant but are not in Chinese. For example, “investigated” (keyword #4) is a substring of “investigated by party organizations” (keyword #1), but the corresponding Chinese keyword 接受调查 is not a substring of 接受组织调查.

1	接受组织调查	Investigated by party organizations
2	接受检察部门调查	Investigated by prosecuting department
3	接受有关部门调查	Investigation by corresponding department
4	接受调查	Investigated
5	公安机关调查	Investigated by police department
6	纪检机关调查	Investigated by discipline inspection department
7	涉嫌受贿	Suspected of receiving bribes
8	涉嫌严重违纪	Suspected of severe disciplinary violations
9	涉嫌个人违纪问题	Suspected of personal disciplinary violations
10	涉嫌经济问题	Suspected of monetary issues
11	涉嫌违纪	Suspected of disciplinary violations
12	被检察机关批准执行逮捕	Arrested with the approval of prosecuting department
13	被检查机关带走接受调查	Taken away by investigation department to be investigated

14	被检察机关带走接受调查	Taken away by prosecuting department to be investigated
15	被警方控制	Under police control
16	被立案侦查	Being filed a case for investigation
17	被带走	Taken away
18	被拘	Detained
19	采取认定为不适当人选措施	Considered an inappropriate candidate
20	刑事拘留	Criminal detention
21	拘留审查	Detained for examination
22	拘留调查	Detained for investigation
23	双规	“Shuanggui” (a disciplinary measure taken by CCP that requires a party member to be investigated at a given time and a given place)
24	两规	Another name for “Shuanggui”
25	两指	“Liangzhi” (similar to “Shuanggui” but applied to non-Party members)
26	逮捕	Arrested
27	批捕	Approval of arrest
28	失去人身自由	Lose personal freedom
29	投案自首	Surrender oneself
30	未能取得联系	Unable to contact
31	逃至国外	Escape abroad
32	跑路	Escape
33	执行监视居住	Under residential surveillance
34	关于媒体报道	Regarding the media report

Due to a large number of news articles, we first obtain the list of 64,827 director turnover events during our sample period from CSMAR and narrow down the sample to news articles that mention names of at least one of these directors. We then search corporate announcements and these news articles and identify 5,866 corporate announcements and 8,102 news articles containing the keywords which are read through to identify an additional sample of corruption cases.

Section A.3 Additional Description of Sample Selection and Corruption Measures

We investigate the details of managers’ corrupt behaviors from the three sources discussed in the paper and conservatively exclude a small number of events. These include where: 1) managers’ corrupt behaviors took place before joining the company; 2) managers’ corrupt behaviors are unrelated to the firm; 3) a manager is found clean after investigation; or 4) the firm experiences a reverse merger or major asset restructuring within one year prior to the investigation so that the manager might not have full control of the firm.

We use the same approach to construct the pre-campaign sample with only one exception: Since the CCDI website started to cover investigation events after the start of the anti-corruption campaign, for the pre-campaign period, we replace the CCDI website with the China Discipline Inspection and Supervision Newspaper which is run by the China Central Commission for Discipline and Ministry of Supervision and covers investigation events.

22 sample firms experience two independent investigations that are at least three years apart, in which case we include both investigations in the sample for completeness (i.e., our sample contains 386 unique firms). We conduct robustness tests by using only the first investigations of these firms and the results are similar in

Panel E of Table IA.1 (corruption measures analysis) and Panel G of Table IA.12 (political connections analysis).

Classifications of SOEs and non-SOEs: A firm is classified as SOE if its controlling shareholder is affiliated with the Chinese government or its largest shareholder is affiliated with the Chinese government and holds at least 25% of the firm's outstanding shares. The data on SOE status is directly obtained from the CSMAR database, and we manually check and correct misclassifications.

Constructions of corruption measures are as below:

1. Monitoring by minority shareholders

We follow Chen, Chen, Schipper, Xu, and Xue (2012) and construct the measure as the total share ownership of the 2nd to 5th largest shareholders (scaled by total shares outstanding) multiplied by the Herfindahl index for the concentration of ownership among these shareholders. The share ownership data are obtained from CSMAR's corporate governance database.

2. Abnormal CEO compensation

We calculate CEO compensation as the sum of salary, the bonus, the value of granted restricted stocks, and the options and appreciation rights. The valuation of granted options, and restricted stocks and appreciation rights generally follow the procedures in the U.S. literature [e.g. Core and Guay (2002)] except that instead of counting total option value towards compensation of grant year, we track how many units are vested or forfeited in the each of following years, calculate the value of the vested amount in the vesting year, and count it to the compensation of vesting year. We adopt this method for our sample of Chinese firms because: 1) Usually, Chinese companies make a one-time option grant to executives as a lump-sum compensation for the next three to ten years (the length of the vesting period). Therefore, counting the total value of option grants towards only the grant year would overestimate the compensation in the grant year and underestimate the compensation in the following non-grant years. 2) Chinese option grants almost all have performance-vesting provisions, which are applied to each vesting period (usually, year-by-year) in addition to time-based vesting provision. So the value the manager can collect depends on firm performance over time. Calculating the option compensation using the total grant amount in the grant year would ignore the performance-vesting provisions and very likely inflate the compensation because of the forfeit provision. The salary, bonus, and option grant data are obtained from CSMAR's corporate governance database.

We follow Agrawal and Walking (1994) and measure abnormal CEO compensation as the residual from a regression of log CEO compensation on firm size, performance, and CEO age within each industry-year. Firm size is measured as the natural log of the market value of firm equity. Performance is measured as the difference of annual holding period returns between the firm and the market portfolio (value-weighted portfolio of all Chinese A shares). The industry is defined using the CSRC 19-industry classification.

3. CEO pay-for-performance sensitivity

Following Bergstresser and Philippon (2006), we first calculate the dollar change in the value of a CEO's stock and option holdings in response to a one percentage increase in the company stock price using the Black-Scholes formula and following the procedures in Core and Guay (2002) (referred to as "OnePct"), and then normalize it with respect to the sum of OnePct, CEO salary and bonus, i.e. Pay-for-Performance Sensitivity = OnePct / (OnePct + Salary + Bonus). CEO's stock and option holdings data are obtained from CSMAR's corporate governance database and WIND database.

4. Related-party sales

Related-party sales for a firm are obtained from CSMAR's related party transaction database at the transaction level in the annual report, and then aggregated and scaled by revenue (REV).

5. Related-party loans

We obtain related-party loans from the WIND database (available from the annual report) and scale by total assets (AT).

6. Other receivables from parent
We obtain data on other receivables from the parent firm WIND database (available from annual report) and scale by total assets (AT).
7. Regulation Breaches
Below is a complete list of the categories of regulation breaches, with English translation. We exclude the type of “non-material accounting errors” (P2515) because they are associated with common accounting mistakes which are unlikely to be associated with corruption.
P2501=虚构利润 Fake profit
P2502=虚列资产 Fake assets
P2503=虚假记载(误导性陈述) Fake record (misleading description)
P2504=推迟披露 Delayed disclosure
P2505=重大遗漏 Important missing items
P2506=披露不实(其它) False disclosure (other)
P2507=欺诈上市 Cheating for IPO
P2508=出资违规 Illegal fund investment
P2509=擅自改变资金用途 Change in uses of funds without permission.
P2510=占用公司资产 Embezzle corporate assets.
P2511=内幕交易 Trading on inside information.
P2512=违规买卖股票 Illegal stock trading.
P2513=操纵股价 Manipulating stock prices.
P2514=违规担保 Illegal guarantee
P2515=一般会计处理不当 Non-material accounting errors
P2599=其他 Other
To avoid any look-ahead bias, we define the year of a regulation breach as the year when the breach is disclosed. On average there is a time-lapse of 0.7 years between disclosure and the last incident of a regulation breach.
8. Business Entertainment Expenditures
We collect the data of business entertainment expenditures from the footnotes of firms’ financial statements using a Python program. The item could be reported under three sections: “management expenses” and “sales expenses” in the income statement, and “other cash payments for the expenses related to operating activities” in the cash flow statement. We follow the literature [Ou-Yang, Shu, and Wong (2015)] and construct the BEE measure as follows. First, if BEE is disclosed under both sections of “management expenses” and “sales expenses” in the income statement, we take their sum as BEE. Second, if BEE is only disclosed in either one of the expenses accounts or “other cash payments” account, we take the reported BEE as the total BEE. Third, if BEE is disclosed only in the “other cash payments” section in the cash flow statement, and one of the expense accounts in the income statement, we take the larger amount as BEE.
9. Operational Inefficiency
We calculate operational inefficiency as the sales growth rate minus the net income growth rate:
$$DIFSGNG_{i,t} = \frac{REV_{i,t}}{REV_{i,t-1}} - \frac{NI_{i,t}}{NI_{i,t-1}}$$
10. Investment Inefficiency
We follow Biddle, Hilary, and Verdi (2009) and measure investment inefficiency as the absolute value of the residual from a regression of a firm’s investment in sales growth within each industry-year. A firm’s investment is calculated as the change in gross property, plant, and equipment plus change in inventories, scaled by lagged total assets.
11. Corruption Postings

We manually read a sample of the “GuBa” posts and find that posters normally use simple and casual language to discuss corruption rather than the formal language in the list of 34 keywords in Section A.2. Therefore, we construct a list of 7 keywords based on our manual reading of the subsample of “GuBa” posts that discuss corruption. We identify a “GuBa” post as discussing corruption if its title contains one of seven keywords below.

1	腐败	Corrupt
2	腐化	Corrupt
3	贪污	Embezzlement
4	反腐	Anti-Corruption
5	受贿	Receiving Bribes
6	行贿	Bribing Others
7	中纪委	Central Commission for Discipline Inspection of the CCP

12. Discretionary accruals

We follow the literature and construct discretionary accruals using annual accounting variables. Specifically, we first define total accrual as the difference between net income (NI) and cash flows from operating activities (CFO), divided by total assets (AT). Next, we use the modified Jones’ (1991) model for each industry-year.

$$\frac{Accruals_{i,t}}{AT_{i,t}} = a_1 \frac{1}{AT_{i,t}} + a_2 \frac{\Delta Rev_{i,t}}{AT_{i,t}} + a_3 \frac{PPE_{i,t}}{AT_{i,t}} + \varepsilon_{i,t}$$

where ΔREV is the change in revenue, and PPE is gross property, plant, and equipment. Discretionary accruals (DACC) is the residual from the regression. Since discretionary accruals reverse over time, we follow the literature and use the absolute value of discretionary accruals as a measure of accounting manipulation.

13. A standardized difference of small profit and small loss

A standardized difference of small profit (small loss) equals the difference between the actual and expected number of firms in the small profit interval (small loss interval), divided by the difference’s estimated standard deviation. We follow the literature [Beaver, McNichols and Nelson (2007)] and calculate the expected number of firms in an interval as the average of the two immediately adjacent intervals, and variance as $Np_i(1 - p_i) + \left(\frac{1}{4}\right)N(p_{i-1} + p_{i+1})(2 - p_{i-1} + p_{i+1})$ where N is the sum of the number of firms and p_i is the probability that a firm falls in interval i .

14. Abnormal stock return volatility around earnings announcement

We consider annual earnings announcements for all Chinese listed firms and construct two measures of volatility around earnings announcements. We first define stock return volatility in a window as the mean of absolute daily abnormal return (in excess of market return) in this window and calculate normalized volatility as the return volatility during the 4-day window [-1, +2] divided by the return volatility during the [-56, -2] window (55 days before the announcement window) and the [+3, +57] window (55 days after the announcement window). Day 0 refers to the earnings announcement day. We further calculate differenced volatility as the return volatility during the 4-day window [-1, +2] minus the return volatility during the [-56, -2] window (55 days before the announcement window) and the [+3, +57] window (55 days after the announcement window). We require at least four days of consecutive trading around the announcement to calculate the volatility measures.

Section A.4 Relations Between Corruption Indicators and Specific Corruption Behaviors.

We examine how the corruption indicators correspond to specific corruption behaviors as summarized in Panel B of Figure 1. Since there are twelve corruption measures and eight types of corruption behaviors, to make the analysis manageable, we group the corruption behaviors into four categories. This grouping also helps

reduce noise because some corruption behaviors have small numbers of events. The four categories include: 1) Embezzlement, which is the behavior of “embezzling funds” in Panel B of Figure 1; 2) Bribery, including the two behaviors of “receiving bribes” and “bribing others” in Panel B of Figure 1; 3) Self-benefiting, including the two behaviors of “illegally benefiting family members” and “insider trading” in Panel B of Figure 1; and 4) Irregularities, including the two behaviors of “negligence of duty” and “disclosure violation” in Panel B of Figure 1. The first two categories might be thought of as the most severe corruption since they involve directly defrauding shareholders or others. The third category is also potentially defrauding, but it may be less severe because the financial benefit is indirect. The fourth type is less severe as it may not involve direct financial benefit.

For each of the twelve corruption measures, we carefully evaluate how the measure is related to the four types of corruption behaviors above. We make predictions for each of the corruption measures: 1) *Corruption posting*: It may have stronger predictability for the more severe corruption than irregularities, because investors tend to pay more attention to severe corruption. 2) *Regulation breaches*: It may have stronger predictability for “irregularities” than the more severe corruption behavior, because regulatory violations are closer in nature to irregularities. 3) *Operation inefficiency* and *investment inefficiency*: They may have stronger predictability for irregularities and self-benefiting than for embezzlement and bribery, because the inefficiencies are manifestations of abnormal operational behavior which are closer in nature to less severe corruption. 4) *CEO near-retirement dummy*: It may have strong predictability for all corruption behaviors, because the distorted CEO incentives near retirement can lead to increases in both severe and less severe corruption behaviors. 5) *Entertainment expenditures*: It may also have strong predictability for all corruption behaviors, because it may indicate both severe corruption and a lack of discipline (less severe corruption). 6) The three measures of related party transactions (*related-party sales*, *related-party loans*, and *other receivables from parents*): They are unethical “tunneling” behaviors that transfer the company’s funding out to an external party. Therefore, while they predict corruption in general, they may be more closely related to embezzlement than other types corruption behaviors. 7) *CEO compensation*: It may be more closely related to self-benefiting than to the other behaviors because high CEO compensation in spirit is close to the less-severe self-benefiting corruption behavior. 8) *Monitoring* and *CEO pay-performance sensitivity*: They may predict all corruption behaviors. First, the monitoring helps discipline managers and prevent corruption behaviors in general. Second, all corruption behaviors are likely to hurt firm performance, so higher pay-for-performance sensitivity can reduce corruption behaviors in general.

To empirically test the above predictions, we calculate the product of: 1) the average difference of each corruption measure at year t-1 between event and matched firms in each subgroup of corruption behaviors and 2) the corresponding estimated coefficient on each corruption measure in the Table 3 model (6) or (7) (details in the header of Figure IA.2). This product measures the contribution of each corruption measure in determining the differential investigation probabilities between event and matched firms. A larger product will imply a stronger linkage between a corruption measure and a type of corruption behavior.

For the ease of viewing the results, we present the twelve corruption measures in two figures. Panel A of Figure IA.2 plots the results for the six corruption measures in 1) to 5) above, which are largely consistent with our predictions. Specifically, corruption posting predicts the first three types of corruption but not irregularities. On the contrary, regulation breaches predict irregularities but not the other three categories. The two inefficiency measures have stronger predictive power for irregularities and self-benefiting than the severe corruption. Finally, CEO near retirement dummy and entertainment expenditure predict all types of corruption behaviors. Panel B of Figure IA.2 plots the other six corruption measures in 6) to 8) above. For the three measures of related-party transactions, inconsistent with our prediction, we do not observe that they are more closely related to embezzlement than the other types of corruptions. Consistent with our prediction, we find that CEO compensation has stronger predictive power for self-benefiting than for other corruption behaviors. CEO pay-for-performance sensitivity seems to predict corruption behaviors in general. Monitoring has the strongest predictive power for irregularities, suggesting that monitoring may be more effective in curbing the more obvious misbehaviors.

Section A.5 List of Positions for National Leaders

According to the official website of the government of China, leaders holding the following positions are recognized as national leaders. Note that a few national leaders assume multiple positions. For example, besides being the President, Xi Jinping also holds the positions of General Secretary of the CCP Central Committee, the Chairman of the Military Commission of the CCP Central Committee, and the Chairman of the Central Military Commission of the People's Republic of China. The list of positions for national leaders can also be found at the Baidu Baike (China's Wikipedia):

[http://baike.baidu.com/link?url=ILJb-Ts74IJJ6gJzL-S_9WjVVXxGVmFrqpBakfXMri-usc8Tmb8mj42NZS3iAiDLy3Rn9avCUxmhKs8z2sBu3zxPpjxaT11gG2XmHMA sVSMZyW03ZC9kcoAjdPZg4Tyj7-CelJl8VroWy8coaHZqtUKOU5uYJLyBBmDSm5RVNS#reference-\[1\]-1381052-wrap](http://baike.baidu.com/link?url=ILJb-Ts74IJJ6gJzL-S_9WjVVXxGVmFrqpBakfXMri-usc8Tmb8mj42NZS3iAiDLy3Rn9avCUxmhKs8z2sBu3zxPpjxaT11gG2XmHMA sVSMZyW03ZC9kcoAjdPZg4Tyj7-CelJl8VroWy8coaHZqtUKOU5uYJLyBBmDSm5RVNS#reference-[1]-1381052-wrap)

1) The Communist Party of China

- General Secretary of the CCP Central Committee.
- Members of the Political Bureau of the CCP Central Committee (over 20 members, including the 7 members of the Politburo Standing Committee).
- Members of the Secretariat of the CCP Central Committee.
- Chairman and Vice-Chairman of the Military Commission of the CCP Central Committee.
- Secretary of the CCP Central Commission for Discipline Inspection.

2) The Central People's Government of China

- President.
- Vice Presidents.
- Premier.
- Chairman and Vice-Chairman of the Central Military Commission of the People's Republic of China.

3) Other Branches

- The National People's Congress: Chairman and Vice-Chairmans of the Standing Committee.
- The Supreme People's Court: President.
- The Supreme People's Procuratorate: Procurators-General.
- The People's Political Consultative Conference: Chairman and Vice-Chairmans of The National Committee.

Section A.6 Robustness Tests Using Alternative Clustering Approaches

For the regression analyses of investigation probability in the first part of the paper (Tables 3 to 5 and their robustness tests in the internet appendix), we use non-clustered standard errors. We found that t-statistics using clustered standard errors, such as clustered at industry and year levels (firm-level clustering is infeasible for our event-based sample), are much larger than the ones without clustering. Therefore, these t-statistics with clustered standard errors are possibly inflated due to the relatively limited sample size which causes a small number of clusters at industry or year level.

Specifically, the asymptotic justification of the robust clustered standard errors assumes that the number of clusters goes to infinity. While clustering helps control for the within-cluster correlations, it could cause downward bias for the clustered standard errors and in turn inflate t-statistics when the number of clusters is small [e.g., Cameron, Gelbach, and Miller (2008); Petersen (2009); Thompson (2011)]. For example, as Gow, Ormazabal and Taylor (2010) conclude, “*Accordingly, researchers should exercise caution when applying any asymptotic methods in small-sample settings.*” Therefore, we decided to take the conservative approach and report t-statistics

based on heteroscedasticity robust standard error without clustering for this part of the analysis. We report the regression results with clustered standard errors at the industry and the year levels (corresponding to Tables 3 to 5) in Tables IA.9 and IA.10.

The regression analyses in the second part of the paper (Tables IA.18 to 22, and Tables IA.26 to 28) use clustered standard errors at industry and year levels. These results are not sensitive to the method of clustering such as cluster by firm and year, or without clustering. For brevity, we report the regression results using non-clustered standard errors corresponding to these tables in Tables IA.29 to 34. As can be seen, the t-statistics using non-clustered standard errors are generally slightly larger than the ones with clustered standard errors, which is consistent with the norm.

Section A.7 The Propensity Score Matching Approach

For each event firm, we identify a matched firm using the propensity score matching (PSM) approach based on the pre-event corruption measures and firm characteristics. Specifically, in each year t , we run a probit model of investigation dummy on lagged corruption indicators including monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, CEO near-retirement dummy, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, lagged firm characteristics including the natural log of market capitalization and SOE dummy, year, industry, and region fixed effects using all listed firms in the pre-event years, i.e., from the year 2013 to the year $t-1$. We use the coefficients from the probit regression, corruption indicators, and firm characteristics at the end of the year $t-1$ to calculate the predicted investigation probability of each firm in year t . Then we use the nearest neighbor matching technique without replacement and setting the caliper to 0.25. This procedure yields a final sample of 279 pairs of treatment and control firms with valid data.

Table IA.11 presents the average of matching characteristics for treatment and control firms, as well as their differences and associated t-statistics. Out of the twelve covariates, ten are statistically indistinguishable between treatment and control firms. The difference of related party sales is marginally significant at the 10% level. The number of regulation breaches is the only covariate that is significantly different at the 5% level. Since Table 3 shows that neither related party sales nor the number of regulation breaches is a significant predictor of corruption investigation, these two significant differences are unlikely affect our inferences.

Table IA.21 examine changes in corruption indicators for investigated firms in the post-investigation period using the PSM sample and the results are similar to the baseline results reported in Table IA.20.

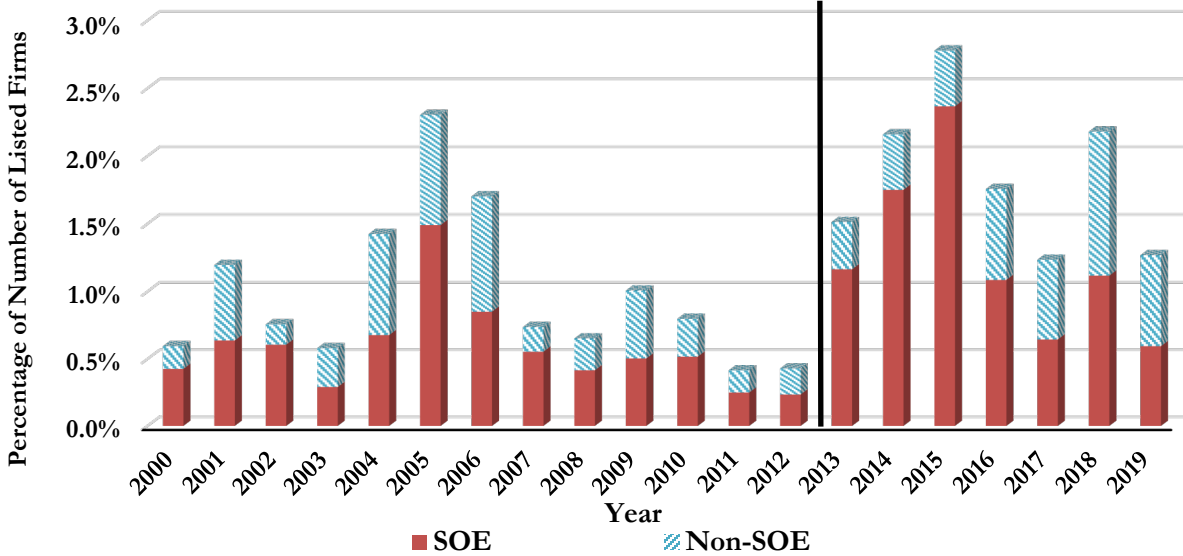
Section A.8 Construction of Matched Sample for Hong Kong Firms

Among the 2,647 Hong Kong listed firms, we first exclude Mainland Chinese firms, namely, H Shares, Red Chips, and Chinese private enterprises, which in total account for 1,163 Hong Kong listed firms. Next, we exclude 60 foreign firms using three sources: World Federation of Exchanges Database, constituents of Hang Seng Foreign Companies Composite Index, and a manual reading of company tickers and names. In the end, we are left with 1,424 Hong Kong local firms. Additionally, Chinese firms have December fiscal year ends but Hong Kong firms' fiscal year ends may vary. To avoid misalignment of accounting periods, we further require Hong Kong firms to have fiscal year ends between September and March, which left us with 1,215 Hong Kong local firms. Then we use the propensity score matching procedure (PSM) to match Chinese listed firms with Hong Kong firms. This approach uses the matching variables that are also available for Hong Kong firms, including operational inefficiency, investment inefficiency, firm size, year dummies, and industry dummies.

Figure IA.1
Description of Sample Firms

This figure plots the percentage of Chinese listed firms with corrupt managers investigated every year. The sample consists of 609 event firms investigated from January 1, 2000, to June 30, 2019. Panel A plots the percentage of state-owned enterprises (SOEs) and non-SOEs in terms of the number of firms by year. Panel B plots the percentage of SOEs and non-SOEs in terms of free-float market capitalization by year. The black bar marks the start of the anti-corruption campaign.

Panel A: SOEs and Non-SOEs across Years: Percentage of Listed Firms in Terms of #Firms



Panel B: SOEs and Non-SOEs across Years: Percentage of Listed Firms in Terms of Market Capitalization

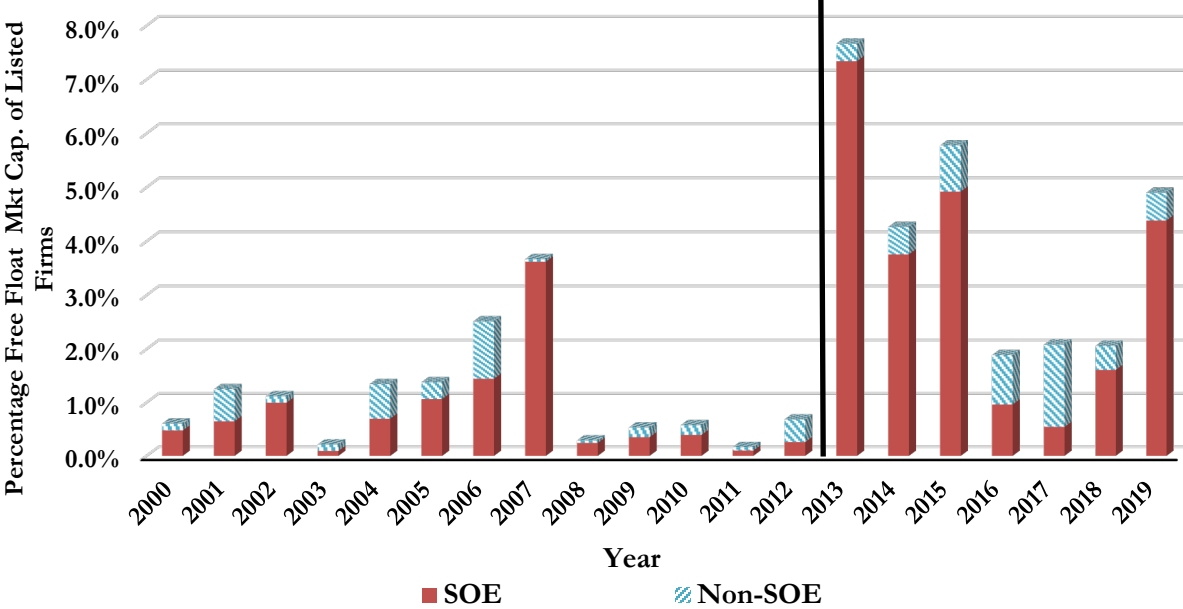
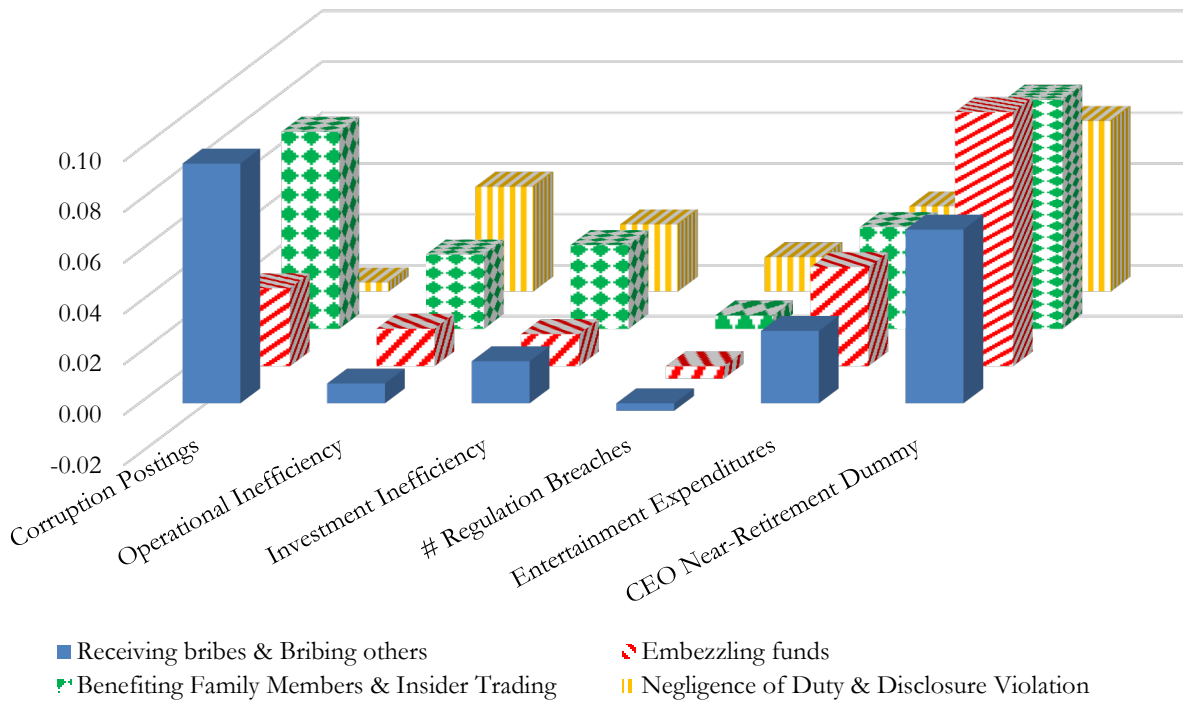


Figure IA.2

Linkage between corruption measures and corruption behavior

This figure plots the product of the average difference of each corruption measure at year t-1 between event firms and matched firms in each corruption behavior group and the corresponding estimated coefficient in the Table 3 model (6) for business entertainment expenditure and model (7) for all other corruption measures. The sample includes 408 Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012 to June 30, 2019. The construction of matched firm sample and definitions of variables are described in the header of Figure 2. We divide corruption behaviors into the four groups: 1) receiving bribes and bribing others, 2) embezzling company funds, 3) illegally benefiting family members and insider trading, and 4) negligence of duty and disclosure violation. Panel A reports for the six corruption measures: Corruption postings, Operational inefficiency, Investment inefficiency, Number of regulation breaches, Business entertainment expenditures, CEO near-retirement dummy. Panel B reports for the six corruption measures: Monitoring by minority shareholders, Abnormal CEO compensation, CEO pay-for-performance, Related-party sales, Related-party loans, Other receivables from parent firm.

Panel A: The first six corruption measures



Panel B: The second six corruption measures

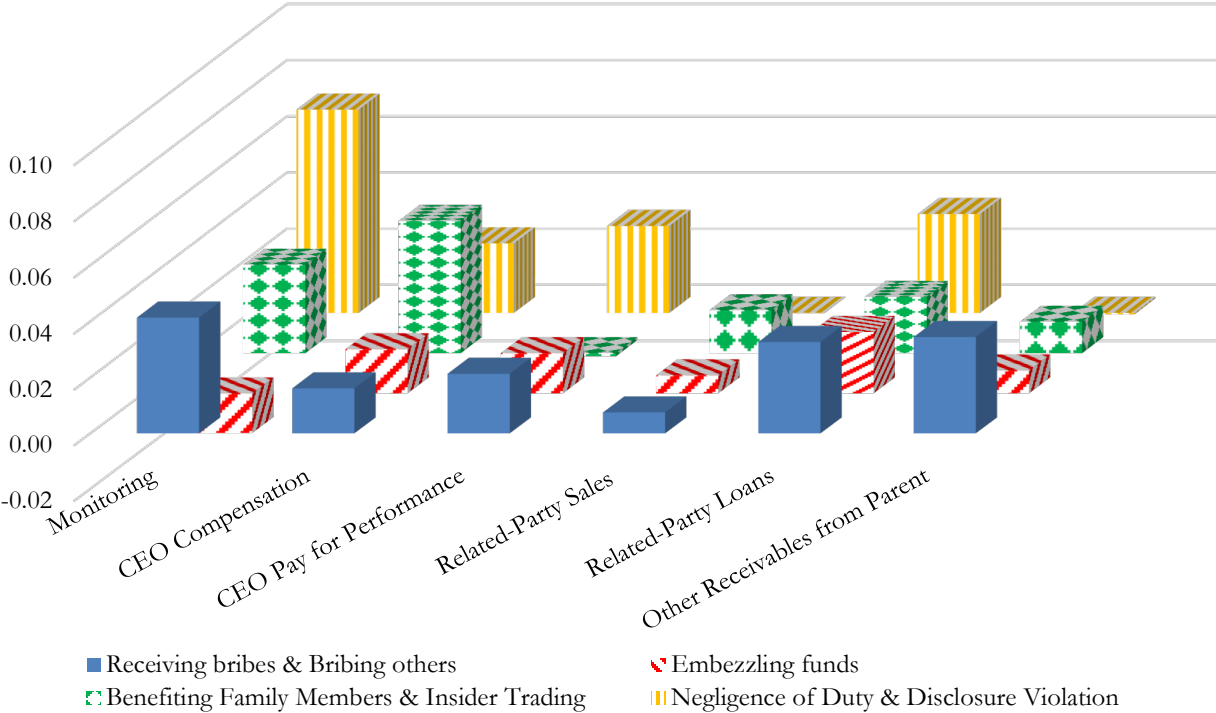
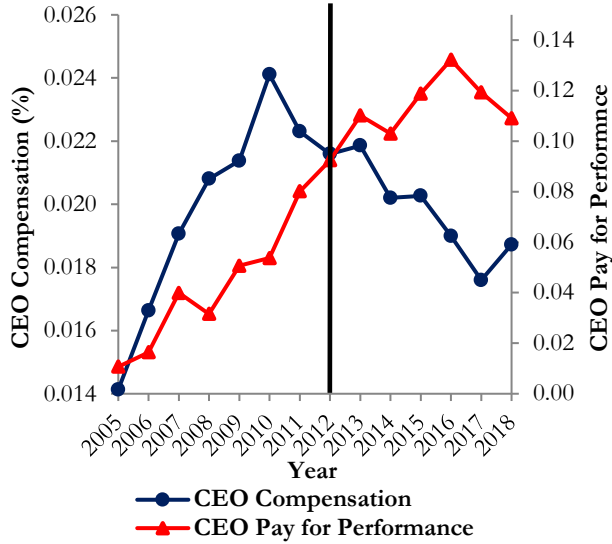


Figure IA.3

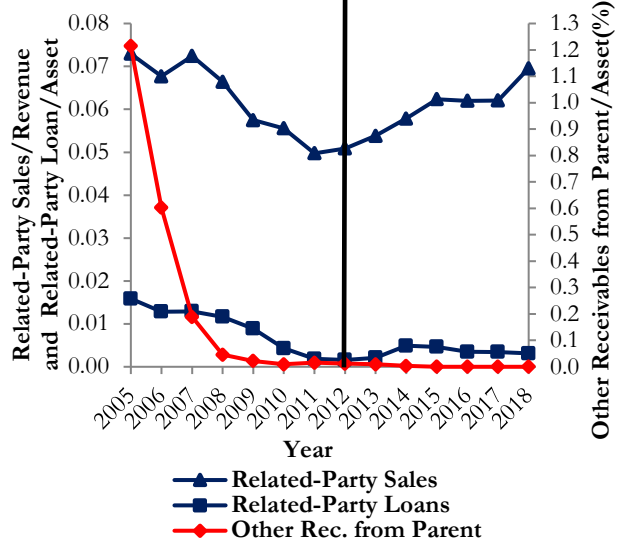
Corruption Measures for Event and Matched Firms: 2005-2018: Investigated Firms and Stepwise Matched Firms

This figure is similar to Figure 4 of the paper except that the sample includes only investigated firms in the campaign sample as well as their matched firms identified using the stepwise matching approach.

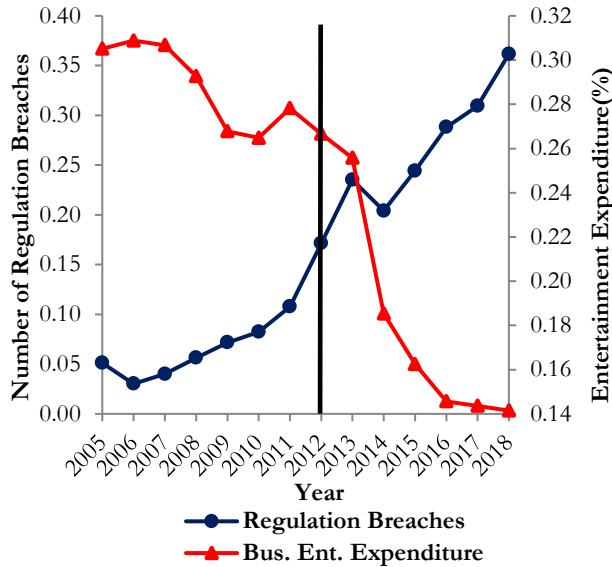
Panel A: CEO Incentives and Compensation



Panel B: Related-Party Transactions



Panel C: Regulation Breaches & Entertainment Expenditures



Panel D: Operating Inefficiency and Investment Inefficiency

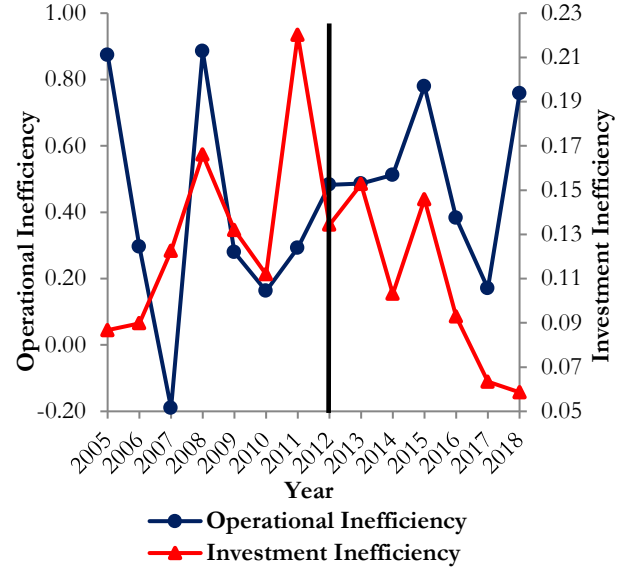
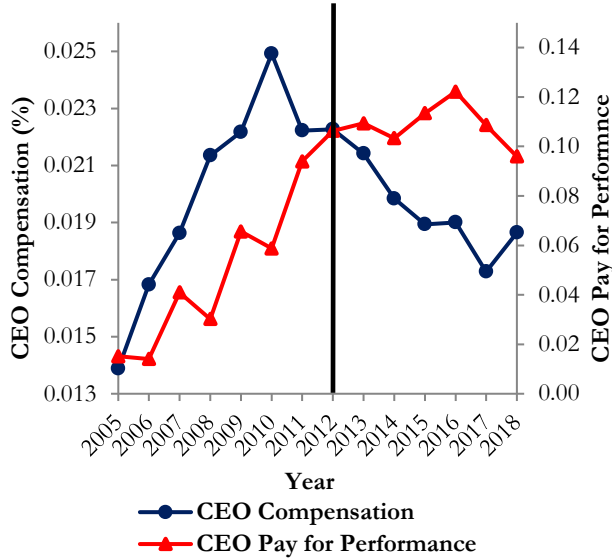


Figure IA.4

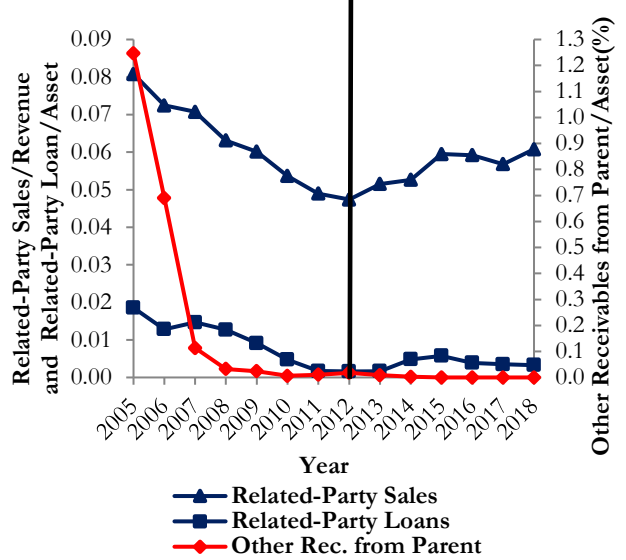
Corruption Measures for Event and Matched Firms: 2005-2018: Investigated Firms and Their Propensity-Score Matched Firms

This figure is similar to Figure 4 of the paper except that the sample includes only investigated firms in the campaign sample as well as their matched firms identified using the propensity score matching (PSM) approach.

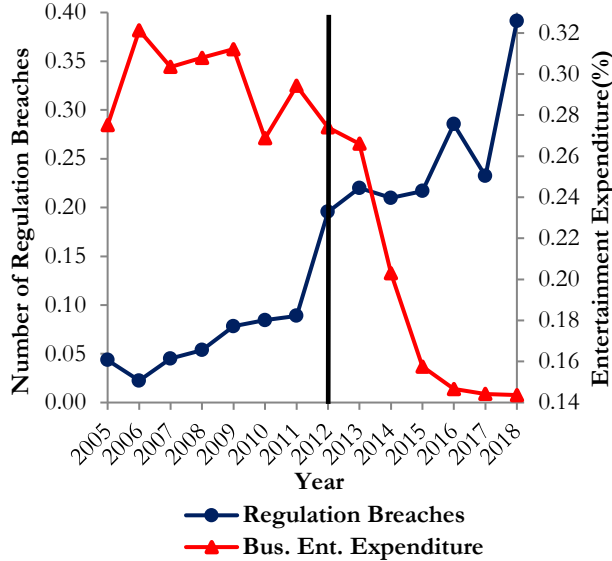
Panel A: CEO Incentives and Compensation



Panel B: Related-Party Transactions



Panel C: Regulation Breaches & Entertainment Expenditures



Panel D: Operating Inefficiency and Investment Inefficiency

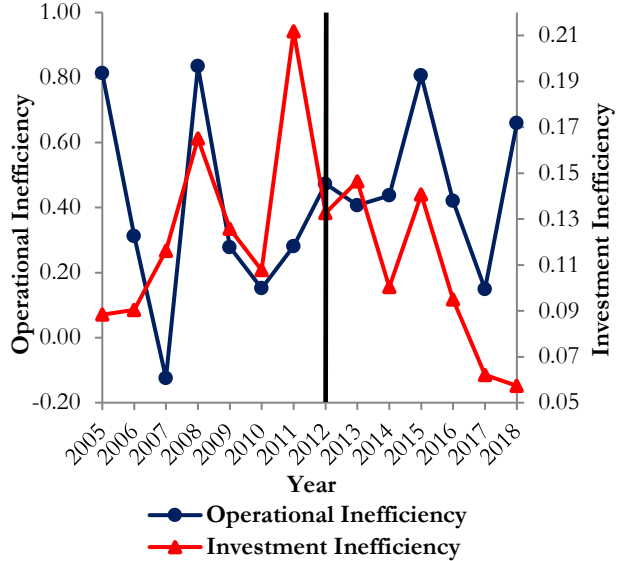


Table IA.1

Probit Regressions of the Corruption Investigation on Corruption Measures: Robustness Tests

This table presents the probit regressions of the corruption investigation on corruption measures. The “subgroup” results correspond to the five regressions using subgroups of indicators in Table 3 Models (1) to (5). The five subgroups of indicators are 1) Monitoring, Abnormal CEO compensation, CEO pay for performance, and CEO near-retirement dummy; 2) Related-party sales, Related-party loans, and Other receivable from parent; 3) # Regulation breaches, and Entertainment Expenditures; 4) Operational inefficiency, and Investment inefficiency; and 5) Corruption postings. The “full” results correspond to a regression on all indicators. The sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019 for the following corruption behaviors: receiving bribes, embezzling funds, benefiting family members, bribing other and unspecified severe violations, as well as their matched firms. For each event firm, we identify a matched firm by first selecting a subsample of firms satisfying the following conditions: 1) In the same industry as the event firm; 2) Have the same SOE status as the event firm; and 3) Market cap is within the range of 50% and 150% of the event firm. We then choose from this subgroup a matched firm that has the closest book-to-market ratio to the event firm. The dependent variable is a dummy variable that equals one if the firm was investigated (event firm), and zero if the firm was not investigated (matched firm). The major independent variables are firm-level corruption measures of the year prior to the corruption investigation (year t-1). The firm-level corruption indicators include: 1) *Monitoring* (Monitoring by minority shareholders), calculated using ownerships of the 2nd to the 5th largest shareholders; 2) *Abnormal CEO compensation*, calculated as the residual from the regression of log CEO compensation on firm size, performance and CEO age within each industry-year; 3) *CEO pay for performance* (CEO pay-for-performance sensitivity), which is the change in dollar value of CEO’s stock and option holdings in response to one percent change in stock price, scaled by the sum of the dollar value change, CEO salary, and CEO bonus; 4) *CEO near-retirement dummy*, which equals one if CEO’s age is greater than or equal to 59; 5) *Related-party sales*, scaled by revenue; 6) *Related-party loans*, scaled by total assets; 7) *Other receivable from parent* (Other receivables from parent firm, scaled by total assets); 8) *# Regulation breaches* (Number of regulation breaches in a year); 9) *Entertainment Expenditures* (Business entertainment expenditures, scaled by total assets); 10) *Operational inefficiency*, calculated as growth of sales minus growth of net income; 11) *Investment inefficiency*, calculated as the absolute value of the residual from the regression of investment on sales growth within each industry-year; and 12) *Corruption postings*, measured as percentage of posts that discussed corruption in the total posts for a firm on “GuBa” (“Stock Bar” in English), a popular online investor-forum. Panel A reports results using narrower definition of corruption that only includes receiving bribes, embezzling funds, benefiting family members, bribing others, and unspecified severe violations. Panel B reports results using the subsample of state-owned enterprises. Panel C reports results using the subsample of non-state-owned enterprises. The variable “other receivables from parent” is dropped from the models due to too few non-zero observations in the Non-SOE subsample. Panel D reports results in which we use the year of earliest investigation (regardless of the rank of the investigated employees) on each event firm as the investigation year. Panel E reports results in which we keep the first event of each unique firm (details discussed in Section A.3). Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except CEO near-retirement dummy and the number of regulation breaches, are Winsorized at 1% and 99% for each year. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms’ fiscal years end in December so the fiscal year coincides with the calendar year. We exclude event firms in the finance industry and their matched firms for the models using five measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. All models include year fixed effects, industry fixed effects, and region fixed effects. T-statistics associated with coefficients are reported in the parentheses. The coefficients on other receivables and business entertainment expenditures are divided by 1,000 to ease reading. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers that are statistically significant at the 0.10 level.

Independent Variables												
	Monitor	CEO Comp.	Pay- Perform.	Near- Retire	Related Sales	Related Loans	Other Receiv.	Reg. Breach	Entertain. Exp.	Op. Ineffic.	Inv. Ineffic.	Corrupt Posting
Panel A: Using Narrower Definition of Corruption												
Subgroup	-0.172***	0.062*	-1.174***	0.602***	0.722*	12.770**	1.211**	-0.017	0.069*	0.036	1.370*	5.168***
Full	-0.366**	0.116**	-1.258**	0.563**	0.566	13.010	0.650	-0.049	0.085*	0.005	0.964	5.347**
Full	-0.205***	0.067*	-1.082***	0.646***	0.529	12.673*	0.709	-0.043		0.033	1.462*	5.634***
Panel B: SOEs Only												
Subgroup	-0.189***	0.062*	-1.224	0.643***	0.788*	12.226**	1.134*	-0.036	0.068	0.026	1.351*	5.578***
Full	-0.425*	0.129**	-2.784*	0.643**	1.001	12.660	0.966	-0.097	0.122*	-0.021	-0.743	5.863**
Full	-0.217***	0.064*	-1.152	0.696***	0.795	12.706*	0.946	-0.105		0.007	1.093	5.884***
Panel C: Non-SOEs Only												
Subgroup	-0.144	0.043	-0.519**	0.263	-0.310	9.900		0.411**	0.008	0.177***	2.690**	1.398
Full	0.096	0.273	-1.242***	0.790*	-9.362***	19.131		0.392	-0.023	0.336***	4.096**	19.095***
Full	-0.080	0.051	-0.388	0.317	-2.068	23.701		0.395**		0.215***	3.166**	1.812
Panel D: Alternative Sample Using Earliest Investigation for Each Event												
Subgroup	-0.170***	0.043	-0.534**	0.491***	0.601	12.277***	1.305**	0.068	0.039	0.084***	1.690***	4.304***
Full	-0.261**	0.113**	-0.661*	0.481**	0.257	15.109**	0.910	0.013	0.054	0.074*	1.898*	5.135**
Full	-0.189***	0.055*	-0.456*	0.538***	0.333	15.444**	0.858	0.028		0.085**	1.536**	4.845***
Panel E: Alternative Sample Using the First Event of Each Firm												
Subgroup	-0.188***	0.063**	-0.519**	0.370***	0.652	11.353**	1.236**	0.140	0.045	0.071**	1.585**	4.834***
Full	-0.213	0.123**	-0.767**	0.425*	0.035	14.781**	0.806	0.083	0.061*	0.064	1.783*	6.264***
Full	-0.237***	0.087**	-0.409*	0.433***	0.403	14.374**	0.888	0.109		0.069**	1.440**	5.590***

Table IA.2

Corruption Measures for Hong Kong-Listed Event Firms before the Corruption Investigations

Panel A presents corruption measures in the years before corruption investigations using the sample of 41 Hong Kong listed Chinese SOEs with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019. AH dual-listed companies are excluded from this sample since they are already included in our baseline sample. Panel B reports the results for a sample that includes our baseline sample of 408 Chinese investigated firms and the 41 Hong Kong event firms used in Panel A. For each event firm, we identify a matched firm by first selecting a subsample of firms satisfying the following conditions: 1) In the same industry as the event firm; 2) Have the same SOE status as the event firm; and 3) Market cap is within the range of 50% and 150% of the event firm. We then choose from this subgroup a matched firm that has the closest book-to-market ratio to the event firm. The table presents the corruption measures in the years t-1 and t, where t is the year of the corruption investigation. The firm-level corruption indicators include: 1) *Abnormal Comp.* (Abnormal CEO Compensation), calculated as the residual from regression of log CEO compensation on firm size, performance and CEO age within each industry-year; 2) *Near-retirement* (CEO near-retirement dummy), which equals one if CEO's age is greater than or equal to 59; 3) *Other receivables* (Other receivable), scaled by total assets; 4) *Regulation breaches* (Number of regulation breaches in a year); 5) *Operational inefficiency*, calculated as the growth of sales minus growth of net income; and 6) *Investment inefficiency*, calculated as the absolute value of the residual from regression of investment on sales growth within each industry-year. Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except CEO near-retirement dummy and the number of regulation breaches, are Winsorized at 1% and 99% for each year. We exclude financial firms for the following measures: other receivables from parent firm, operational inefficiency, and investment inefficiency. To ease reading, other receivables are expressed in percentage. Bold is used for differences that are statistically significant at the 0.10 level.

Panel A: Corruption Measures before Investigation: 41 Hong Kong-listed SOEs								
	Year t-1				Year t			
	Event Firms	Match Firms	Diff	t-stat	Event Firms	Match Firms	Diff	t-stat
Abnormal Comp.	-0.553	-0.777	0.224	(0.80)	-0.843	-0.555	-0.288	(-0.82)
Near-Retirement	0.179	0.107	0.071	(0.81)	0.040	0.160	-0.120	(-1.36)
Other Receivables (%)	0.783	0.333	0.449	(0.94)	1.089	0.552	0.537	(0.96)
Regulation Breaches	0.000	0.028	-0.028	(-1.00)	0.059	0.000	0.059	(1.00)
Operational Inefficiency	0.068	0.058	0.009	(0.70)	0.078	0.078	0.001	(0.06)
Invest. Inefficiency	0.246	0.080	0.166	(0.81)	0.340	0.404	-0.064	(-0.31)
Panel B: Corruption Measures before Investigation: Baseline Sample & 41 Hong Kong-listed SOEs								
Abnormal Comp.	0.160	-0.107	0.267	(2.34)	-0.030	-0.087	0.057	(0.36)
Near-Retirement	0.241	0.128	0.112	(4.77)	0.263	0.129	0.134	(5.28)
Other Receivables (%)	0.042	0.017	0.025	(1.08)	0.058	0.030	0.029	(0.98)
Regulation Breaches	0.246	0.196	0.050	(1.13)	0.489	0.244	0.244	(3.31)
Operational Inefficiency	0.104	0.089	0.016	(3.34)	0.111	0.095	0.016	(2.50)
Invest. Inefficiency	0.654	0.355	0.300	(2.52)	0.781	0.409	0.372	(2.78)

Table IA.3

Regressions of Length of Imprisonment on Corruption Measures

This table presents regressions of the length of imprisonment on corruption measures. The sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019. The dependent variable is the natural log of one plus sentenced years of imprisonment. The major independent variables are firm-level corruption measures of the year prior to the corruption investigation (year t-1). The firm-level corruption indicators are defined in the header of Table IA.1. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. We exclude event firms in the finance industry and their matched firms for the models using five measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. All models include year fixed effects, industry fixed effects, and region fixed effects. T-statistics associated with coefficients are reported in the parentheses. The coefficients on other receivables and business entertainment expenditures are divided by 100 to ease reading. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers that are statistically significant at the 0.10 level.

Independent Variables (t-1)	Dependent Variable: Log (Sentenced Years + 1)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Monitoring	-0.021 (-0.23)					0.049 (0.13)	-0.069 (-0.66)
Abnormal CEO Comp.	0.182* (1.79)					0.146 (0.86)	0.206* (1.94)
CEO Pay for Performance	-0.643* (-1.75)					-1.332** (-2.21)	-0.761** (-2.04)
CEO Near-Retire Dummy	-0.319 (-1.65)					-0.272 (-0.80)	-0.477** (-2.32)
Related-Party Sales		1.259** (2.49)				1.690* (1.79)	1.493** (2.45)
Related-Party Loans		-1.829 (-0.51)				-1.620 (-0.22)	-1.724 (-0.33)
Other Receiv. from Parent		2.581 (1.48)				2.602 (0.72)	2.360 (1.12)
# Regulation Breaches			-0.098 (-0.54)			-0.084 (-0.39)	-0.197 (-1.31)
Entertain. Expenditures			0.561* (1.88)			0.561* (1.72)	
Operational Inefficiency				-0.049 (-1.19)		-0.106 (-1.48)	-0.062 (-1.35)
Investment Inefficiency				-0.420 (-0.68)		-1.587 (-1.53)	-0.624 (-0.97)
Corruption Postings					-0.605 (-0.42)	0.692 (0.25)	-2.044 (-1.26)
Ln(ME)	0.052 (0.74)	0.089 (1.41)	0.072 (0.53)	0.117* (1.78)	0.074 (1.16)	-0.169 (-0.99)	0.107 (1.49)
SOE Dummy	1.303*** (6.60)	1.349*** (8.06)	1.324*** (5.56)	1.362*** (7.57)	1.416*** (8.30)	0.876*** (2.70)	1.205*** (5.25)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	186	216	116	201	222	88	168

Table IA.4

Regressions of the Corruption Investigation on Corruption Measures: Pre-Campaign Period

This table presents probit regressions of the corruption investigations on corruption measures. The sample includes Chinese listed firms with corrupt managers investigated from January 1, 2000 to December 3, 2012 (the anti-corruption campaign starts on December 4, 2012) as well as their matched firms. In Panel A, for each event firm, we identify a matched firm by first selecting a subsample of firms satisfying the following conditions: 1) In the same industry as the event firm; 2) Have the same SOE status as the event firm; and 3) Market cap is within the range of 50% and 150% of the event firm. We then choose from this subgroup a matched firm that has the closest book-to-market ratio to the event firm. In Panel B (C), rather than choose one matched firm, we choose two (three) matched firms with closest book-to-market ratio to the event firm. In Panel D, we use all Chinese listed firms rather than the sample of event firms and their matched firms. The dependent variable is a dummy variable that equals one if the firm was investigated (event firm), and zero if the firm was not investigated (matched firm). The major independent variables are firm-level corruption measures of the year prior to the corruption investigation (year t-1). The firm-level corruption indicators include: 1) *Monitoring* (Monitoring by minority shareholders), calculated using ownerships of the 2nd to the 5th largest shareholders; 2) *Abnormal CEO compensation*, calculated as the residual from regression of log CEO compensation on firm size, performance and CEO age within each industry-year; 3) *CEO pay for performance* (CEO pay-for-performance sensitivity), which is the change in dollar value of CEO's stock and option holdings in response to one percent change in stock price, scaled by the sum of the dollar value change, CEO salary, and CEO bonus; 4) *CEO near-retirement dummy*, which equals one if CEO's age is greater than or equal to 59; 5) *Related-party sales*, scaled by revenue; 6) *Related-party loans*, scaled by total assets; 7) *Other receivable from parent* (Other receivables from parent firm, scaled by total assets); 8) *# Regulation breaches* (Number of regulation breaches in a year); 9) *Operational inefficiency*, calculated as growth of sales minus growth of net income; and 10) *Investment inefficiency*, calculated as the absolute value of the residual from regression of investment on sales growth within each industry-year. Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except CEO near-retirement dummy and the number of regulation breaches, are Winsorized at 1% and 99% for each year. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. We exclude event firms in the finance industry and their matched firms for the models using five measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. All models include year fixed effects, industry fixed effects, and region fixed effects. T-statistics associated with coefficients are reported in the parentheses. The coefficients on other receivables are divided by 1,000 to ease reading. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers that are statistically significant at the 0.10 level.

Panel A: Probit Regressions Using Matched Firms					
Independent Variables (t-1)	Dependent Variable: Dummy of the Corruption Investigation				
	(1)	(2)	(3)	(4)	(5)
Monitoring	0.081 (0.71)				0.086 (0.54)
Abnormal CEO Compensation	0.063 (1.21)				0.047 (0.75)
CEO Pay for Performance	0.073 (0.13)				-0.690 (-0.71)
CEO Near-Retirement Dummy	-0.326 (-0.92)				-0.353 (-0.78)
Related-Party Sales		-0.604 (-1.21)			-0.356 (-0.48)
Related-Party Loans		3.332** (2.31)			-1.539 (-0.42)
Other Receivables from Parent		0.008** (2.17)			0.079 (0.70)
# Regulation Breaches			0.172 (1.09)		0.474 (1.44)
Operational Inefficiency				0.119*** (3.78)	0.081 (1.31)
Investment Inefficiency				0.335 (0.36)	-2.156 (-1.02)
Controls	Yes	Yes	Yes	Yes	Yes
Year, Industry and Region FEs	Yes	Yes	Yes	Yes	Yes
# Obs	186	310	402	318	140

Panel B: Probit Regressions Using Matched Firms: 1-to-2 Matches					
Independent Variables (t-1)	Dependent Variable: Dummy of the Corruption Investigation				
	(1)	(2)	(3)	(4)	(5)
Monitoring	0.087 (0.89)				0.108 (0.79)
Abnormal CEO Compensation	0.073* (1.79)				0.087* (1.72)
CEO Pay for Performance	0.092 (0.20)				-0.539 (-0.69)
CEO Near-Retirement Dummy	-0.359 (-1.22)				-0.356 (-0.95)
Related-Party Sales		-0.626 (-1.49)			-0.491 (-0.79)
Related-Party Loans		3.011*** (2.63)			-1.284 (-0.44)
Other Receivables from Parent		0.008** (2.56)			0.058 (0.72)
# Regulation Breaches			0.152 (1.16)		0.474* (1.82)
Operational Inefficiency				0.118*** (4.45)	0.051 (1.00)
Investment Inefficiency				0.358 (0.45)	-2.055 (-1.20)
Controls	Yes	Yes	Yes	Yes	Yes
Year, Industry and Region FEs	Yes	Yes	Yes	Yes	Yes
# Obs	279	465	603	477	210

Panel C: Probit Regressions Using Matched Firms: 1-to-3 Matches					
Independent Variables (t-1)	Dependent Variable: Dummy of the Corruption Investigation				
	(1)	(2)	(3)	(4)	(5)
Monitoring	0.073 (0.82)				0.079 (0.64)
Abnormal CEO Compensation	0.076** (2.02)				0.092** (2.00)
CEO Pay for Performance	0.100 (0.23)				-0.451 (-0.66)
CEO Near-Retirement Dummy	-0.342 (-1.27)				-0.339 (-1.00)
Related-Party Sales		-0.594 (-1.54)			-0.591 (-1.04)
Related-Party Loans		2.925*** (2.85)			-0.869 (-0.34)
Other Receivables from Parent		0.007*** (2.83)			0.048 (1.06)
# Regulation Breaches			0.144 (1.23)		0.448* (1.96)
Operational Inefficiency				0.111*** (4.68)	0.044 (0.94)
Investment Inefficiency				0.344 (0.48)	-1.745 (-1.15)
Controls	Yes	Yes	Yes	Yes	Yes
Year, Industry and Region FEs	Yes	Yes	Yes	Yes	Yes
# Obs	372	620	804	636	280

Panel D: Probit Regressions Using All Listed Firms					
Independent Variables (t-1)	Dependent Variable: Dummy of the Corruption Investigation				
	(1)	(2)	(3)	(4)	(5)
Monitoring	0.010 (0.25)				0.007 (0.14)
Abnormal CEO Compensation	0.035 (1.37)				0.042 (1.49)
CEO Pay for Performance	-0.093 (-0.48)				-0.386 (-1.31)
CEO Near-Retirement Dummy	-0.107 (-0.88)				-0.055 (-0.42)
Related-Party Sales		-0.096 (-0.42)			-0.007 (-0.02)
Related-Party Loans		1.290*** (2.85)			0.793 (0.95)
Other Receivables from Parent		0.001 (1.45)			-0.001 (-0.56)
# Regulation Breaches			0.177** (2.47)		0.215** (2.00)
Operational Inefficiency				0.062*** (5.31)	0.020 (1.01)
Investment Inefficiency				-0.102 (-0.31)	-0.501 (-0.88)
Controls	Yes	Yes	Yes	Yes	Yes
Year, Industry and Region FEs	Yes	Yes	Yes	Yes	Yes
# Obs	11,221	14,039	18,767	15,410	9,234

Table IA.5

Probit Regressions of Corruption Investigation on Corruption Measures: Interactions with Post-2012 Dummy

This table extends the baseline regressions in Table 3 by including interactions of the corruption measures with a post-2012 dummy which equals one for the post-2012 period and zero otherwise. The “subgroup” results correspond to four regressions using subgroups of indicators. The four subgroups of indicators are 1) Monitoring, Abnormal CEO compensation, CEO pay for performance, and CEO near-retirement dummy; 2) Related-party sales, Related-party loans, and Other receivable from parent; 3) # Regulation breaches; and 4) Operational inefficiency, and Investment inefficiency. The “full” results correspond to a regression on all indicators.

	Interaction Terms with Post-2012 Dummy									
	Monitor	CEO Comp.	Pay- Perform.	Near- Retire	Related Sales	Related Loans	Other Receiv.	Reg. Breach	Operational Inefficiency	Inv. Inefficiency
Panel A: Probit Regressions Using Matched Firms										
Subgroup	-0.215*	-0.039	-0.683	0.803**	1.238**	8.529*	1.162**	-0.040	-0.031	1.305
Full	-0.273*	-0.025	-0.083	0.740*	1.124	17.436**	0.868	-0.302	0.042	2.094
Panel B: OLS Regressions Using All Listed Firms										
Subgroup	-0.130***	-0.001	-0.651***	0.306**	0.787***	0.808	0.018	-0.192**	-0.022	0.239
Full	-0.102*	-0.001	-0.375	0.250*	0.368	0.427	-0.009	-0.227**	0.021	0.834

Table IA.6

Probit Regressions of the Corruption Investigations on Alternative Political Connection Measures

This table presents the probit regressions of the corruption investigation on same-time workplace connection measures. The regressions are similar to those in Table 5 but include the same-time workplace measures: 1) *Same-Time Workplace Conn: PSC Leaders*, number of connections where a C-Suite executive of the company and a PSC leader have worked with the government of the same province at the same time; 2) *Same-Time Workplace Conn: Invest. (Non-Invest.) National Leaders*, constructed similarly as in 1) but using the investigated or non-investigated national leaders. For the connection variables, we take natural log of the sum of raw value and one. ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers statistically significant at the 0.10 level.

Dependent Variable: Dummy of the Corruption Investigation					
Panel A: Same-Time Workplace Connection Measures					
Independent Variables (t-1)	(1)	(2)	(3)		
Same-Time Workplace Conn: PSC Leaders	-0.484* (-1.95)		-0.453 (-1.27)		
Same-Time Workplace Conn: Invest. National Leaders		0.690 (1.08)	0.777 (1.20)		
Same-Time Workplace Conn: Non-Invest. National Leaders		-0.311* (-1.92)	-0.124 (-0.57)		
Other Variables, Controls, Fixed Effects	Yes	Yes	Yes		
# Obs	610	610	610		
Panel B: Probit Regressions of Investigation on University Affiliation: Tsinghua and Peking vs Other Universities					
Independent Variables (t-1)	(1)	(2)	(3)		
University Affiliation: Tsinghua & Peking	-0.605** (-2.57)		-0.607*** (-2.58)		
University Affiliation: Other Universities		-0.090 (-0.20)	-0.127 (-0.28)		
Other Variables, Controls, Fixed Effects	Yes	Yes	Yes		
# Obs	610	610	610		
Panel C: Probit Regressions of the Corruption Investigation on Political Connection Measures: Alternative Pairs of Universities					
Independent Variables (t-1)	(1)	(2)	(3)	(4)	(5)
University Affiliation: Top 2	-0.605** (-2.57)			-0.593** (-2.50)	-0.600** (-2.54)
University Affiliation: 3 rd & 4 th		-0.628 (-1.17)		-0.533 (-0.97)	
University Affiliation: 5 th & 6 th			-0.261 (-0.79)	-0.285 (-0.86)	
University Affiliation: 3 rd – 6 th					-0.344 (-1.19)
Other Variables, Controls, FEs	Yes	Yes	Yes	Yes	Yes
# Obs	610	610	610	610	610

Table IA.7

Correlations Among Corruption Measures and Political Connection Measures

This table reports Pearson correlation matrices among corruption measures and political connection measures. Panel A reports for corruption measures in the sample used for Table 3. Panel B reports for political connection measures in the sample used for Table 5.

Panel A: Correlations Among Corruption Measures												
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Monitoring (1)	1.00											
Abnormal CEO Comp. (2)	0.08	1.00										
CEO Pay-Perf. (3)	0.09	-0.03	1.00									
CEO Near-Retirement (4)	0.01	0.07	-0.09	1.00								
Related-Party Sales (5)	-0.04	-0.05	-0.11	0.07	1.00							
Related-Party Loans (6)	0.01	-0.09	0.00	-0.04	0.08	1.00						
Other Receivables (7)	0.14	-0.01	-0.04	-0.05	-0.01	-0.01	1.00					
# Regulation Breaches (8)	-0.02	0.00	-0.01	0.09	0.00	0.01	0.01	1.00				
Entertain. Expenditures (9)	-0.02	0.08	0.13	-0.08	-0.11	-0.02	0.00	-0.01	1.00			
Operational Inefficiency (10)	-0.03	-0.07	-0.05	-0.02	0.05	0.03	0.04	0.09	0.02	1.00		
Investment Inefficiency (11)	0.00	0.00	-0.11	-0.07	0.00	0.06	0.07	-0.05	0.01	0.01	1.00	
Corruption Postings (12)	0.02	0.02	-0.14	0.06	0.07	0.03	0.01	-0.02	-0.15	-0.03	0.02	1.00

Panel B: Correlations Among Political Connection Measures													
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Local Government Connection (1)	1.00												
Central Government Connection (2)	-0.06	1.00											
University Affiliation: PSC Leaders (3)	-0.09	0.04	1.00										
Birthplace Conn.: PSC Leaders (4)	-0.04	-0.04	-0.05	1.00									
Association with Zhou, Yongkang (5)	0.06	0.00	-0.03	-0.08	1.00								
Univ. Conn: Invest. National Leaders (6)	0.09	0.05	0.33	-0.09	0.00	1.00							
Birth Conn: Invest. National Leaders (7)	-0.09	-0.04	-0.07	0.26	-0.10	-0.06	1.00						
Univ. Conn: Non-Invest. National Leaders (8)	0.02	0.08	0.67	-0.08	-0.02	0.45	-0.10	1.00					
Birth Conn: Non-Invest. National Leaders (9)	-0.03	-0.02	-0.06	0.07	-0.02	-0.11	0.20	-0.03	1.00				
Birth Conn: 2,389 Invest. Politicians (10)	-0.11	-0.08	-0.06	0.08	0.08	-0.07	0.21	-0.05	0.05	1.00			
Province Graft-Tigers (11)	-0.06	0.00	-0.01	-0.06	0.09	-0.04	0.10	-0.07	-0.03	0.07	1.00		
Province Graft-Flies (12)	0.03	0.07	-0.05	-0.14	-0.06	-0.02	-0.13	-0.02	-0.16	0.00	0.21	1.00	
Investigation Team in Province (13)	0.04	0.01	0.00	0.02	-0.05	-0.06	0.06	-0.04	-0.02	-0.06	-0.08	-0.09	1.00

Table IA.8
Collinearity Tests

This table reports variance inflation factors (VIF) and tolerance for corruption measures and political connection measures. The samples are the one used in Table 3 for the left panel and the one used in Table 5 for the right panel.

Corruption Measures	VIF	Tolerance	Connection Measures	VIF	Tolerance
Monitoring	1.12	0.89	Local Gov. Connection	1.06	0.94
Abnormal CEO Comp.	1.03	0.97	Central Gov. Connection	1.02	0.98
CEO Pay-Perf.	1.08	0.92	Univ. Affiliation: PSC	1.93	0.52
CEO Near-Retirement	1.03	0.97	Birthplace Conn.: PSC	1.11	0.90
Related-Party Sales	1.06	0.95	Assoc. with Zhou	1.06	0.95
Related-Party Loans	1.02	0.98	Univ. Conn: Invest. Leaders	1.28	0.78
Other Receivables	1.08	0.93	Birth Conn: Invest. Leaders	1.22	0.82
# Regulation Breaches	1.02	0.98	Univ. Conn: Non-Invest. Leaders	2.04	0.49
Entertain. Expenditures	1.04	0.96	Birth Conn: Non-Invest. Leaders	1.07	0.94
Operational Inefficiency	1.02	0.98	Birth Conn: 2,389 Invest. Politicians	1.09	0.92
Investment Inefficiency	1.03	0.97	Province Graft-Tigers	1.10	0.91
Corruption Postings	1.04	0.96	Province Graft-Flies	1.13	0.88
			Invest. Team in Province	1.04	0.96

Table IA.9

Probit Regressions of Corruption Investigation on Corruption Measures

This table is similar to Tables 3 and 4 except reporting t-statistics using clustered standard errors at industry and year levels. The “subgroup” results correspond to five regressions using subgroups of indicators in Table 3 Models (1)-(5). The five subgroups of indicators are 1) Monitoring, Abnormal CEO compensation, CEO pay for performance, and CEO near-retirement dummy; 2) Related-party sales, Related-party loans, and Other receivable from parent; 3) # Regulation breaches, and Entertainment Expenditures; 4) Operational inefficiency, and Investment inefficiency; and 5) Corruption postings. The “full” results correspond to a regression on all indicators.

	Independent Variables											
	Monitor	CEO Comp.	Pay- Perform.	Near- Retire	Related Sales	Related Loans	Other Receiv.	Reg. Breach	Entertain Exp.	Op. Ineffic.	Inv. Ineffic.	Corrupt Posting
Panel A: Probit Regressions Using Matched Firms: Clustered Standard Errors by Industry and Year												
Subgroup	-0.168*** (-6.64)	0.053* (1.70)	-0.528*** (-3.05)	0.496** (2.29)	0.584*** (3.65)	11.361*** (5.24)	1.224*** (5.21)	0.084** (2.23)	0.046 (1.15)	0.074** (2.12)	1.632* (1.93)	4.517*** (3.43)
Full	-0.238*** (-5.10)	0.108*** (7.89)	-0.666*** (-7.94)	0.509*** (4.70)	0.066 (0.31)	15.353*** (5.76)	0.845** (2.10)	0.017 (0.21)	0.065** (2.07)	0.072 (0.93)	1.789*** (8.93)	5.965*** (3.01)
Full	-0.197*** (-4.81)	0.068*** (3.47)	-0.436** (-2.10)	0.548*** (4.46)	0.312 (1.55)	14.497*** (3.20)	0.860 (1.29)	0.055 (0.97)		0.076** (1.98)	1.548** (2.06)	4.843*** (2.61)
Panel B: Probit Regressions Using All Listed Firms: Clustered Standard Errors by Industry and Year												
Subgroup	-0.112*** (-2.80)	0.041** (2.14)	-0.439*** (-6.25)	0.197 (1.61)	0.272 (1.54)	2.073 (1.05)	0.013 (0.40)	0.065** (2.10)	0.000 (0.03)	0.050*** (2.70)	0.095 (0.29)	1.257*** (2.58)
Full	-0.152*** (-3.94)	0.041*** (3.12)	-0.511*** (-8.36)	0.145*** (3.24)	0.162 (1.18)	1.609 (0.60)	0.003 (0.06)	0.043 (0.92)	0.006 (0.60)	0.046*** (3.52)	0.006 (0.02)	0.732 (0.90)
Full	-0.090*** (-3.68)	0.045*** (4.78)	-0.442*** (-7.27)	0.205*** (3.35)	0.209 (1.16)	1.027 (0.37)	-0.014 (-0.50)	0.064* (1.80)		0.051*** (6.08)	0.071 (0.44)	0.750 (1.36)
Panel C: OLS Regressions Using Matched Firms: Clustered Standard Errors by Industry and Year												
Subgroup	-0.061*** (-7.60)	0.019** (2.14)	-0.198*** (-3.03)	0.189** (2.15)	0.218* (1.76)	3.618*** (4.20)	0.178* (1.76)	0.033** (2.53)	0.016* (1.73)	0.029** (2.39)	0.604* (1.95)	1.671*** (3.17)
Full	-0.074*** (-3.80)	0.034*** (3.55)	-0.217*** (-3.48)	0.189*** (2.60)	-0.011 (-0.09)	4.491*** (3.59)	0.134*** (6.10)	0.000 (0.02)	0.020*** (2.78)	0.028 (1.50)	0.588*** (2.88)	2.077*** (3.26)
Full	-0.066*** (-3.55)	0.024** (2.09)	-0.156* (-1.89)	0.201*** (3.17)	0.098 (0.90)	4.063*** (3.19)	0.149** (2.37)	0.018 (0.88)		0.028*** (2.66)	0.553* (1.74)	1.765*** (2.70)

Table IA.10

Probit Regressions of Corruption Investigation on Political Connection Measures

This table is similar to Table 5 except reporting t-statistics using clustered standard errors at industry and year levels.

Independent Variables (t-1)	Dependent Variable: Dummy of Corruption Investigation								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Government Connection	0.774*** (5.42)								
Local Government Connection		0.901*** (4.64)							0.905*** (4.12)
Central Government Connection		-0.086 (-0.20)							-0.297 (-0.60)
University Affiliation: PSC Leaders			-0.510* (-1.73)						
Birthplace Conn.: PSC Leaders			0.111 (0.43)						0.245 (1.27)
Association with Zhou, Yongkang				0.504 (1.35)					0.679** (1.98)
Univ. Conn: Invest. National Leaders					1.021*** (3.93)				1.351*** (3.48)
Birth Conn: Invest. National Leaders					-0.207 (-1.12)				0.017 (0.07)
Univ. Conn: Non-Invest. National Leaders					-0.439*** (-3.42)				-0.466*** (-5.18)
Birth Conn: Non-Invest. National Leaders					-0.083 (-0.36)				-0.076 (-0.37)
Birth Conn: 2,389 Invest. Politicians						-0.078 (-0.77)			-0.133 (-1.14)
Province Graft-Tigers							0.046 (0.22)		0.103 (0.46)
Province Graft-Flies							0.534 (0.84)		0.217 (0.28)
Investigation Team in Province								0.303* (1.92)	0.425*** (3.09)
Monitoring	-0.225*** (-3.40)	-0.218*** (-3.23)	-0.198*** (-2.90)	-0.203*** (-3.16)	-0.195*** (-2.99)	-0.193*** (-2.84)	-0.170*** (-2.88)	-0.197*** (-3.22)	-0.175*** (-2.90)
Abnormal CEO Compensation	0.076 (1.48)	0.072* (1.76)	0.072* (1.67)	0.066 (1.45)	0.064 (1.56)	0.069 (1.63)	0.063 (1.52)	0.069 (1.53)	0.065 (1.55)

Dependent Variable: Dummy of Corruption Investigation									
Independent Variables (t-1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CEO Pay for Performance	-0.348 (-1.57)	-0.340 (-1.52)	-0.411* (-1.90)	-0.439* (-1.75)	-0.415 (-1.54)	-0.436* (-1.71)	-0.443 (-1.54)	-0.415 (-1.61)	-0.317 (-1.14)
CEO Near-Retirement Dummy	0.458* (1.90)	0.456* (1.95)	0.544*** (3.09)	0.547*** (3.06)	0.536*** (2.91)	0.549*** (3.10)	0.614*** (4.13)	0.559*** (3.25)	0.544** (2.48)
Related-Party Sales	0.297 (0.92)	0.265 (0.78)	0.355 (0.96)	0.258 (0.88)	0.296 (0.88)	0.275 (0.93)	0.324 (0.86)	0.285 (1.12)	0.178 (0.53)
Related-Party Loans	14.733*** (3.22)	15.331*** (3.60)	15.463*** (3.22)	14.408*** (3.48)	16.490*** (4.78)	14.278*** (3.07)	13.964*** (3.43)	14.076*** (3.23)	16.098*** (6.39)
Other Receivables from Parent	0.514 (1.04)	0.419 (0.86)	0.922 (1.34)	0.776 (1.09)	0.879 (1.31)	0.888 (1.37)	1.321** (2.41)	0.748 (1.16)	0.595 (1.60)
# Regulation Breaches	0.077 (1.12)	0.088 (1.43)	0.060 (0.76)	0.056 (0.82)	0.093 (0.99)	0.053 (0.76)	0.071 (1.00)	0.055 (0.74)	0.141** (2.42)
Operational Inefficiency	0.087 (1.64)	0.086* (1.66)	0.071* (1.95)	0.079* (1.77)	0.067 (1.46)	0.074 (1.41)	0.069 (1.45)	0.081 (1.64)	0.081* (1.84)
Investment Inefficiency	1.490** (1.97)	1.460** (2.05)	1.565* (1.96)	1.442* (1.92)	1.926** (2.44)	1.568* (1.91)	1.804** (2.11)	1.529* (1.81)	1.887*** (3.36)
Corruption Postings	4.178** (2.08)	4.491** (2.11)	4.746*** (2.68)	4.753*** (2.58)	4.947** (2.45)	4.787** (2.44)	4.992** (2.54)	4.972*** (2.68)	5.203** (2.19)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	610	610	610	610	610	610	570	610	570

Table IA.11

Comparison of Firm Characteristics For Treatment And Propensity-Score-Matched Control Firms

This table presents the average of matching characteristics for treatment and propensity-score-matched control firms, as well as their differences and associated t-statistics. This sample includes 279 pairs of treatment and control firms with valid data. The characteristics include monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, CEO near-retirement dummy, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, and natural log of market capitalization. Detailed matching procedure is described in Section A.7.

Variables	Event Firms	Matched Firms	Diff.	t-stat
Monitoring	0.423	0.446	-0.023	(-0.37)
CEO Compensation	0.215	0.209	0.006	(0.06)
CEO Pay for Performance	0.079	0.107	-0.028	(-1.33)
CEO Near-Retirement Dummy	0.154	0.172	-0.018	(-0.57)
Related-Party Sales	0.066	0.047	0.019*	(1.80)
Related-Party Loans	0.004	0.003	0.001	(0.50)
Other Receivables from Parent (%)	0.003	0.000	0.002	(1.42)
# Regulation Breaches	0.283	0.140	0.143***	(2.81)
Operational Inefficiency	0.609	0.528	0.081	(0.54)
Investment Inefficiency	0.107	0.093	0.014	(1.53)
Corruption Postings	0.040	0.032	0.007	(1.63)
Ln(ME)	22.696	22.658	0.038	(0.46)

Table IA.12

Regressions of the Corruption Investigation on Political Connection Measures: Robustness Tests

This table presents probit regressions of the corruption investigation on political connection measures. The “subgroup” results correspond to eight regressions using subgroups of indicators in Table 5 Models (1)-(8). The “full” results correspond to a regression on all indicators. In Panel A, the sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019, as well as their propensity-score matched firms. Specifically, in each year t , we run a probit model of investigation dummy on lagged corruption indicators including monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, CEO near-retirement dummy, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, lagged firm characteristics including the natural log of market capitalization and SOE dummy, year, industry, and region fixed effects using all listed firms from the year 2013 to year $t-1$. We use the coefficients from the probit regression, corruption indicators, and firm characteristics at the end of year $t-1$ to calculate the predicted investigation probability of each firm in year t . Then we use the nearest neighbor matching technique without replacement and setting the caliper to 0.25. This procedure yields a final sample of 279 pairs of treatment and control firms with valid data. In Panel B, the sample includes investigated firms located in provinces or controlled by SOEs being sent an investigation team in the past 12 months, as well as their peer firm under the same inspection group. For peer firms under the same investigation team to the province, we choose the one with the closest predicted investigation probability. The predicted investigation probability is calculated following the same procedure as described in Panel A. Panel C is the same as Table 5 except we use OLS regression instead of probit regression. Panel D is the same as Table 5 except that we use the year of earliest investigation on each event firm as the investigation year. Panel E is the same as Table 5 except we use the subsample of state-owned enterprises. Panel F is the same as Table 5 except we use the subsample of non-state-owned enterprises. The variable “Central Government Connection” is dropped from the models due to too few non-zero observations in the Non-SOE subsample. Panel G is the same as Table 5 except that we keep the first event of each unique firm. In all panels, the dependent variable is a dummy variable that equals one if the firm was investigated (event firm), and zero if the firm was not investigated. The major independent variables are firm-level political connection measures: 1) *Government connection*, a dummy variable that equals one if a C-Suite executive was previously a high-ranked government official; 2) *Central and local government connection*, two dummy variables constructed according to whether a C-Suite manager was previously a high-ranked government official for the central or local government; 3) *University affiliation: PSC leaders*, number of connections where a C-Suite executive of the company graduated from the same university as a PSC leader; 4) *Birthplace connection: PSC leaders*, a dummy variable that equals 1 if the company’s headquarter is located in the home province of a PSC leader; 5) *Association with Yongkang Zhou*, a dummy variable that equals one if the firm is located in the Sichuan province or in the oil industry, the power base of Zhou, Yongkang, the highest ranked leader investigated; 6) *University affiliations with investigated (non-investigated) national leaders*, constructed similarly as in 3) but using the investigated or non-investigated national leaders; 7) *Birthplace connections with investigated or non-investigated national leaders*, constructed similarly as in 4) but using the number of investigated or non-investigated national leaders whose home province is the same as the company’s headquarters province; 8) *Birthplace connections with the 2,389 investigated government officials*, constructed similarly constructed as in 7) but using the 2,389 investigated officials publicized on the CCDI website; 9) *Province graft-tigers and graft-flies*. The former is the average rank of investigated provincial officials in the six months prior to the investigation month, and the latter is the total number of investigated provincial officials in the prior six months, scaled by the number of counties in the province; 10) *Investigation team in the province*, a dummy variable that equals one if an investigation team was in the province in the prior six months. For the university and birthplace connection variables, we take the natural log of the sum of raw value and one. ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers statistically significant at the 0.10 level.

		<i>Independent Variables</i>													
		Govt. Conn.	Local Conn.	Central Conn.	Univ. PSC	Birth PSC	Assoc. Zhou	Univ. Invest.	Birth Invest.	Univ. NonInv.	Birth NonInv.	Birth 2,389 Invest.	Graft- Tigers	Graft- Flies	Invest. Team
Panel A: Probit Regressions: Matched Firms Using the PSM Approach															
Subgroup	1.383***	1.420***	1.008	-0.774***	-0.239	0.911***	0.948**	-0.061	-0.480***	0.036	-0.002	0.072	0.326	0.272	
Full		1.438***	1.165*		-0.213	0.910***	0.898**	0.165	-0.485***	0.017	-0.058	0.094	-0.108	0.337*	
Panel B: Probit Regressions: Matched Firms Under the Same Investigation Teams															
Subgroup	1.263***	1.508***	-0.348	-1.003**	0.204	0.675*	1.035*	0.037	-0.301**	-0.095	-0.040	-0.060	1.721		
Full		1.755***	0.254		0.408	0.862*	0.412	0.587	-0.309*	-0.326	-0.165	0.030	2.758*		
Panel C: OLS Regressions of the Corruption Investigation on Political Connection Measures															
Subgroup	0.264***	0.300***	-0.016	-0.176**	0.037	0.171*	0.328***	-0.077	-0.147***	-0.028	-0.027	0.017	0.174	0.106*	
Full		0.283***	-0.076		0.073	0.188*	0.394***	-0.001	-0.141***	-0.024	-0.040	0.032	0.105	0.138**	
Panel D: Probit Regressions of the Corruption Investigation on Political Connection Measures: Earliest Investigation															
Subgroup	0.630***	0.775***	-0.704	-0.395*	0.113	0.530*	0.870**	-0.195	-0.378***	-0.108	-0.061	-0.002	0.619	0.309*	
Full		0.786***			0.188	0.774**	1.232***	-0.029	-0.382***	-0.135	-0.098	0.043	0.395	0.398**	
Panel E: SOEs Only															
Subgroup	0.875***	1.068***	-0.158	-0.843***	0.199	0.479	1.123**	-0.340	-0.535***	-0.115	-0.137	0.078	1.070	0.332*	
Full		1.028***	-0.509		0.365	0.783*	1.443**	-0.076	-0.629***	-0.066	-0.227*	0.190	0.266	0.567**	
Panel F: Non-SOEs Only															
Subgroup	-0.046	-0.046		0.074	-0.021	1.519**	0.995	0.831*	-0.248	0.197	0.188	-0.047	-2.069	0.261	
Full		0.221			0.269	2.044**	1.372**	1.446**	-0.119	0.060	-0.078	-0.221	-0.157	0.330	
Panel G: Probit Regressions of the Corruption Investigation on Political Connection Measures: First Event of Each Firm															
Subgroup	0.791***	0.876***	0.151	-0.494**	0.140	0.472	1.061***	-0.088	-0.439***	-0.083	-0.091	0.064	0.536	0.328**	
Full		0.866***	-0.002		0.265	0.601*	1.461***	-0.265	-0.457***	-0.082	-0.117	0.125	0.216	0.444**	

Table IA.13

Regressions of Length of Imprisonment on Political Connection Measures

This table presents regressions of the length of imprisonment on political connection measures. The regressions are similar to those in Table IA.3 but include the political connection measures: 1) *Government connection*, a dummy variable that equals one if a C-Suite executive was previously a high-ranked government official; 2) *Central and local government connection*, two dummy variables constructed according to whether a C-Suite manager was previously a high-ranked government official for the central or local government; 3) *University affiliation: PSC leaders*, number of connections where a C-Suite executive of the company graduated from the same university as a PSC leader; 4) *Birthplace connection: PSC leaders*, a dummy variable that equals 1 if the company's headquarter is located in the home province of a PSC leader; 5) *Association with Yongkang Zhou*, a dummy variable that equals one if the firm is located in the Sichuan province or in the oil industry, the power base of Zhou, Yongkang, the highest ranked leader investigated; 6) *University affiliations with investigated (non-investigated) national leaders*, constructed similarly as in 3) but using the investigated or non-investigated national leaders; 7) *Birthplace connections with investigated or non-investigated national leaders*, constructed similarly as in 4) but using the number of investigated or non-investigated national leaders whose home province is the same as the company's headquarters province; 8) *Birthplace connections with the 2,389 investigated government officials*, constructed similarly constructed as in 7) but using the 2,389 investigated officials publicized on the CCDI website; 9) *Province graft-tigers and graft-flies*. The former is the average rank of investigated provincial officials in the six months prior to the investigation month, and the latter is the total number of investigated provincial officials in the prior six months, scaled by the number of counties in the province; 10) *Investigation team in the province*, a dummy variable that equals one if an investigation team was in the province in the prior six months. For the university and birthplace connection variables, we take the natural log of the sum of raw value and one. ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers statistically significant at the 0.10 level.

Dependent Variable: Log (Sentenced Years + 1)									
Independent Variables (t-1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Government Connection	0.277 (1.52)								
Local Government Connection		0.264 (1.43)							0.507*** (2.90)
Central Government Connection		0.528 (0.90)							0.306 (0.50)
University Affiliation: PSC Leaders			-0.935** (-2.33)						
Birthplace Conn.: PSC Leaders			-0.128 (-0.57)						-0.141 (-0.64)
Association with Zhou, Yongkang				0.921*** (2.93)					0.824** (2.16)
Univ. Conn: Invest. National Leaders					-0.043 (-0.11)				-0.570 (-1.31)
Birth Conn: Invest. National Leaders					0.321 (1.05)				0.675** (2.03)
Univ. Conn: Non-Invest. National Leaders					-0.137 (-0.88)				-0.185 (-1.26)
Birth Conn: Non-Invest. National Leaders					0.458*** (2.77)				0.271 (1.49)
Birth Conn: 2,389 Invest. Politicians						0.144 (1.39)			0.030 (0.27)
Province Graft-Tigers							0.164 (1.50)		0.051 (0.49)
Province Graft-Flies							-1.064 (-0.93)		-1.091 (-0.96)
Investigation Team in the Province								-0.040 (-0.20)	-0.226 (-1.16)
Corruption Measures Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year, Industry, Region Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	168	168	168	168	168	168	157	168	157

Table IA.14
Probit Regressions of the Corruption Investigation on Political Connection Measures: Pre-Campaign Period

This table presents probit regressions of the corruption investigation on political connection measures. The sample includes Chinese listed firms with corrupt managers investigated from January 1, 2000, to December 3, 2012 (the anti-corruption campaign starts on December 4, 2012) as well as their matched firms. For each event firm, we identify a matched firm by first selecting a subsample of firms satisfying the following conditions: 1) In the same industry as the event firm; 2) Have the same SOE status as the event firm; and 3) Market cap is within the range of 50% and 150% of the event firm. We then choose from this subgroup a matched firm that has the closest book-to-market ratio to the event firm. The dependent variable is a dummy variable that equals one if the firm was investigated (event firm), and zero if the firm was not investigated (matched firm). The major independent variables are firm-level corruption measures of the year prior to the corruption investigation (year t-1). The regressions are similar to those in Table 3 but include the political connection measures: 1) *Government connection*, a dummy variable that equals one if a C-Suite executive was previously a high-ranked government official; 2) *Central and local government connection*, two dummy variables constructed according to whether a C-Suite manager was previously a high-ranked government official for the central or local government; 3) *University affiliation: PSC leaders*, number of connections where a C-Suite executive of the company graduated from the same university as a PSC leader; 4) *Birthplace connection: PSC leaders*, a dummy variable that equals 1 if the company's headquarter is located in the home province of a PSC leader; 5) *University affiliations with investigated (non-investigated) national leaders*, constructed similarly as in 3) but using the investigated or non-investigated national leaders; 6) *Birthplace connections with investigated or non-investigated national leaders*, constructed similarly as in 4) but using the number of investigated or non-investigated national leaders whose home province is the same as the company's headquarters province. For the university and birthplace connection variables, we take the natural log of the sum of raw value and one. ***, **, and * represent significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers statistically significant at the 0.10 level.

Dependent Variable: Dummy of the Corruption Investigation					
Independent Variables (t-1)	(1)	(2)	(3)	(4)	(5)
Government Connection	-0.229 (-0.57)				
Local Government Connection		-0.306 (-0.73)			-0.423 (-0.98)
Central Government Connection		-0.155 (-0.18)			0.055 (0.06)
University Affiliation: PSC Leaders			0.725 (1.34)		
Birthplace Conn.: PSC Leaders			0.313 (0.96)		0.484 (1.47)
Univ. Conn: Invest. National Leaders				-0.912 (-0.64)	-1.129 (-0.77)
Birth Conn: Invest. National Leaders				0.615 (1.00)	0.849 (1.32)
Univ. Conn: Non-Invest. National Leaders				0.060 (0.23)	0.086 (0.32)
Birth Conn: Non-Invest. National Leaders				-0.239 (-1.08)	-0.253 (-1.12)
Corruption Measures	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Year, Industry, Region Fixed Effects	Yes	Yes	Yes	Yes	Yes
# Obs	140	140	140	140	140

Table IA.15

Probit Regressions of the Corruption Investigation on Political Connection Measures: Interactions with Pre-2012 Dummy

This table extends the baseline regressions in Table 5 by including interactions of the political connection and corruption measures with a post-2012 dummy which equals one for the post-2012 period and zero otherwise. The sample includes investigation events in both pre-2012 and post-2012 periods.

Dependent Variable: Dummy of the Corruption Investigation					
Independent Variables (t-1)	(1)	(2)	(3)	(4)	(5)
Government Connection* Post2012	0.679*				
	(1.72)				
Local Government Connection* Post2012		0.909**			1.136***
		(2.16)			(2.59)
Central Government Connection* Post2012		-0.085			-0.128
		(-0.09)			(-0.13)
University Affiliation: PSC Leaders* Post2012			-0.926*		
			(-1.78)		
Birthplace Conn.: PSC Leaders* Post2012			-0.417		-0.440
			(-1.29)		(-1.30)
Univ. Conn: Invest. National Leaders* Post2012				2.382*	2.553*
				(1.73)	(1.79)
Birth Conn: Invest. National Leaders* Post2012				-0.889	-1.044
				(-1.45)	(-1.63)
Univ. Conn: Non-Invest. National Leaders* Post2012				-0.573**	-0.589**
				(-2.15)	(-2.12)
Birth Conn: Non-Invest. National Leaders * Post2012				-0.139	-0.096
				(-0.77)	(-0.51)
Political Connection Measures	Yes	Yes	Yes	Yes	Yes
Corruption Measures and Interactions	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes
Year, Industry, Region Fixed Effects	Yes	Yes	Yes	Yes	Yes
# Obs	750	750	750	750	750

Table IA.16

Ex-ante Investigation Probability of Event Firm and Listed Firm that the Successors Worked

This table compares the ex-ante investigation probability for the event firm and the listed firm where the incoming executive worked for. The sample includes investigation events for which the identified incoming executive had worked for other listed companies before she/he replaces the investigated manager. To calculate ex-ante investigation probability, we first estimate probit regression models of the investigation dummy on lagged corruption measures and firm characteristics using all listed firms in the pre-event years. Specifically, for an event that took place in year t after the start of the campaign, we estimate the probit model using years from 2013 to $t-1$ and calculate the ex-ante investigation probability using the obtained regression coefficients of the probit model and corruption measures and firm characteristics at the end of year $t-1$. For an event that took place in year t before the start of the campaign, we estimate the probit model using years from 2000 to $t-1$ and calculate the ex-ante investigation probability using the obtained regression coefficients of the probit model and corruption measures and firm characteristics at the end of year $t-1$. The independent variables of probit model include monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, CEO near-retirement dummy, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, firm size, year, SOE status, industry, and region fixed effects. Panel A reports for the investigation events after the start of the anti-corruption campaign. Panel B reports for the investigation events before the start of the anti-corruption campaign.

Panel A: Campaign Period					
	Investigated Firms	Firms of Successors	Diff.	t-stat	#obs.
The most recent listed firms the successors worked for					
Investigation Probability	4.17%	4.58%	0.41%	0.56	50
The listed firms the successors worked for in the past three years					
Investigation Probability	4.30%	4.74%	0.45%	0.54	44
Panel B: Pre-Campaign Period					
	Investigated Firms	Firms of Successors	Diff.	t-stat	#obs.
The most recent listed firms the successors worked for					
Investigation Probability	2.62%	0.62%	-2.00%	-1.93	12
The listed firms the successors worked for in the past three years					
Investigation Probability	2.62%	0.62%	-2.00%	-1.93	12

Table IA.17

Political Connection Measures of Investigated Executives and Incoming Executives

This table compares the political connection measures of investigated executives and incoming executives. We calculate the following political connection measures: 1) University affiliation: PSC leaders, a dummy variable that equals 1 if the executive graduated from the same university as a PSC leader; 2) Birthplace connection: PSC leaders, a dummy variable that equals 1 if the executive was born in the same province as a PSC leader; 3) University affiliations with investigated (non-investigated) national leaders, constructed similarly as in 1) but using the number of investigated or non-investigated national leaders who graduated from the same university as the executive; 4) Birthplace connections with investigated or non-investigated national leaders, constructed similarly as in 2) but using the number of investigated or non-investigated national leaders whose home province is the same as the executive's home province. For the university and birthplace connection variables with investigated or non-investigated national leaders, we take the natural log of the sum of raw value and one. Panel A reports for the investigation events after the start of the anti-corruption campaign. Panel B reports for the investigation events before the start of the anti-corruption campaign.

Panel A: Corruption Replacement After Start of the Campaign					
	Investigated Executives	Successors	Diff	t-stat	#obs.
University Affiliation: PSC Leaders	0.088	0.235	0.15	3.06	68
Birthplace Conn.: PSC Leaders	0.271	0.441	0.17	2.10	59
Univ. Conn: Invest. National Leaders	0.079	0.016	-0.06	-1.73	68
Birth Conn: Invest. National Leaders	0.059	0.047	-0.01	-0.38	59
Univ. Conn: Non-Invest. National Leaders	0.397	0.515	0.12	1.23	68
Birth Conn: Non-Invest. National Leaders	1.164	1.199	0.03	0.24	59
Panel B: Corruption Replacement Before Start of the Campaign					
	Investigated Executives	Successors	Diff	t-stat	#obs.
University Affiliation: PSC Leaders	0.053	0.158	0.11	1.46	19
Birthplace Conn.: PSC Leaders	0.091	0.091	0.00	0.00	11
Univ. Conn: Invest. National Leaders	0.000	0.036	0.04	1.00	19
Birth Conn: Invest. National Leaders	0.100	0.000	-0.10	-1.00	11
Univ. Conn: Non-Invest. National Leaders	0.277	0.298	0.02	0.18	19
Birth Conn: Non-Invest. National Leaders	0.834	1.123	0.29	1.20	11

Table IA.18

Difference of Corruption Measures for All Firms, Corruption-Prone and Non-Corruption-Prone Industries, SOE and Non-SOE firms: Before and After the Start of the Anti-corruption Campaign

This table presents regression analysis to examine the differences of corruption measures between the average of 2010-2011 and the average of 2013-2018 (after the start of the anti-corruption campaign) for all Chinese listed firms, firms in corruption-prone and non-corruption-prone industries, and SOE and non-SOE firms. Corruption-prone industries are defined to be the two industries with the highest percentage of firms investigated during the anti-corruption campaign, namely, mining, and transportation. Non-corruption-prone industries are defined to be two industries with the lowest percentage of firms investigated during the anti-corruption campaign, namely, leasing and commercial services and scientific and technological services. Industry classification is based on CSRC 19-industry classification and industries with less than ten companies are excluded. The firm-level corruption indicators include: 1) *CEO comp.* (CEO compensation), scaled by total assets; 2) *CEO pay-perform.* (CEO pay-for-performance sensitivity); 3) *Related sales* (Related-party sales, scaled by revenue); 4) *Related loans* (Related-party loans, scaled by total assets); 5) *Other receiv.* (Other receivables from parent firm, scaled by total assets); 6) *Reg. breaches* (Number of regulation breaches in a year); 7) *Entertain. Exp.* (Business entertainment expenditures, scaled by total assets); 8) *Operational Inefficiency*, calculated as the growth of sales minus growth of net income; and 9) *Inv. inefficiency* (Investment inefficiency), calculated as the absolute value of the residual from the regression of investment on sales growth within each industry-year. In Panel A, the sample includes all Chinese firms in the years of 2010-2011 and 2013-2018. The independent variable is the Post dummy, which equals one for the years of 2013-2018 and zero for the years of 2010-2011. In Panel B, the sample includes firms in the corruption-prone and non-corruption-prone industries in the years of 2010-2011 and 2013-2018. The main independent variables include the interaction term between the Post dummy and CorruptInd dummy, and the interaction term between the Post dummy and NonCorruptInd dummy. CorruptInd takes the value of one for firms in the corruption-prone industries and zero otherwise. NonCorruptInd is defined as one minus CorruptInd. The regression also includes the CorruptInd dummy but does not report its coefficient for brevity. In Panel C, the sample is the same as in Panel A. The main independent variables include the interaction term between the Post dummy and SOE dummy, and the interaction term between the Post dummy and NonSOE dummy. The regression also includes the SOE dummy but does not report its coefficient for brevity. In Panels B and C, we also report F-tests on the differences between the coefficients on the two interaction terms. Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except the number of regulation breaches, are Winsorized at 1% and 99% for each year. We exclude financial firms for these measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. T-statistics are calculated using standard errors clustered by industry and by year. To ease reading, CEO compensation, other receivables from parent firm, and business entertainment expenditures are expressed in percentage. Bold is used for numbers that are statistically significant at the 0.10 level.

	Dependent Variables								
	CEO Comp. (%)	CEO Pay- Perform.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Operational Inefficiency	Inv. Inefficiency
Panel A: Changes After the Anti-Corruption Campaign									
Post	-0.001 (-0.46)	0.109*** (3.88)	-0.003** (-2.20)	-0.000 (-0.38)	-0.007*** (-6.08)	0.105*** (10.57)	-0.074** (-2.56)	0.159** (2.51)	-0.062* (-1.95)
#Obs	22,153	21,811	22,141	22,141	22,141	22,636	17,274	20,415	18,601
Panel B: Changes After the Anti-Corruption Campaign: Corruption-Prone Industries vs. Non-Corruption-Prone Industries									
Post×CorruptInd (1)	-0.002*** (-3.11)	0.027** (2.19)	0.013 (1.16)	-0.001 (-0.78)	-0.016*** (-5.89)	0.049 (0.90)	-0.080** (-2.53)	0.233 (1.06)	-0.034* (-1.78)
Post×NonCorruptInd (2)	0.012 (1.17)	0.101* (1.92)	-0.000 (-0.02)	-0.000 (-0.10)	0.002 (0.73)	0.102 (1.52)	-0.008 (-0.20)	0.001 (0.00)	-0.065 (-1.29)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-test for (1) = (2)	7.06	2.09	0.64	0.04	54.64	0.49	3.86	0.70	0.40
(p-value)	0.008	0.148	0.424	0.851	0.000	0.486	0.050	0.403	0.527
#Obs	1632	1615	1691	1691	1691	1691	1199	1584	1443
Panel C: Changes After the Anti-Corruption Campaign: SOEs vs. Non-SOEs									
Post×SOE (1)	-0.004** (-2.12)	0.012*** (2.85)	0.006 (1.25)	0.000 (0.15)	-0.010*** (-5.71)	0.119*** (5.86)	-0.116*** (-5.02)	0.160** (2.51)	-0.059 (-1.53)
Post×NonSOE (2)	-0.004 (-1.15)	0.119*** (3.75)	-0.000 (-0.28)	-0.000 (-0.45)	-0.004*** (-4.13)	0.090*** (9.31)	-0.071** (-2.40)	0.156** (2.19)	-0.060** (-2.32)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F-test for (1) = (2)	0.04	12.42	1.85	1.04	32.74	1.50	13.79	0.00	0.01
(p-value)	0.837	0.000	0.174	0.307	0.000	0.220	0.000	0.946	0.932
#Obs	22153	21811	22141	22141	22141	22636	17274	20415	18601

Table IA.19

Difference of Corruption Measures for Event Firms and Matched Firms: Before and After the Start of the Anti-Corruption Campaign

This table presents regression analysis to examine the differences of corruption measures between the average of 2010-2011 and the average of 2013-2018 (after the start of the anti-corruption campaign) for event firms and matched firms. In Panel A, the sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019, as well as their matched firms. For each event firm, we identify a matched firm by first selecting a subsample of firms satisfying the following conditions: 1) In the same industry as the event firm; 2) Have the same SOE status as the event firm; and 3) Market cap is within the range of 50% and 150% of the event firm. We then choose from this subgroup a matched firm that has the closest book-to-market ratio to the event firm. In Panel B, the sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019, as well as their propensity-score matched firms. Specifically, in each year t , we run a probit model of investigation dummy on lagged corruption indicators including monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, CEO near-retirement dummy, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, lagged firm characteristics including the natural log of market capitalization and SOE dummy, year, industry, and region fixed effects using all listed firms from the year 2013 to year $t-1$. We use the coefficients from the probit regression, corruption indicators, and firm characteristics at the end of year $t-1$ to calculate the predicted investigation probability of each firm in year t . Then we use the nearest neighbor matching technique without replacement and setting the caliper to 0.25. This procedure yields a final sample of 279 pairs of treatment and control firms with valid data. The firm-level corruption indicators include: 1) *CEO comp.* (CEO compensation), scaled by total assets; 2) *CEO pay-perform.* (CEO pay-for-performance sensitivity); 3) *Related sales* (Related-party sales, scaled by revenue); 4) *Related loans* (Related-party loans, scaled by total assets); 5) *Other receiv.* (Other receivables from parent firm, scaled by total assets); 6) *Reg. breaches* (Number of regulation breaches in a year); 7) *Entertain. Exp.* (Business entertainment expenditures, scaled by total assets); 8) *Operational Inefficiency*, calculated as the growth of sales minus growth of net income; and 9) *Inv. inefficiency* (Investment inefficiency), calculated as the absolute value of the residual from the regression of investment on sales growth within each industry-year. The independent variable is the Post dummy, which equals one for the years of 2013-2018 and zero for the years of 2010-2011. Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except the number of regulation breaches, are Winsorized at 1% and 99% for each year. We exclude financial firms for these measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. T-statistics are calculated using standard errors clustered by industry and by year. To ease reading, CEO compensation, other receivables from parent firm, and business entertainment expenditures are expressed in percentage. Bold is used for numbers that are statistically significant at the 0.10 level.

	Dependent Variables								
	CEO Comp. (%)	CEO Pay- Perform.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Operational Inefficiency	Inv. Inefficiency
Panel A: Changes After the Anti-Corruption Campaign: Investigated Firms and Matched Firms Using the Stepwise Approach									
Post	-0.004 (-1.32)	0.048*** (3.20)	0.009*** (2.59)	0.001 (0.64)	-0.010*** (-5.11)	0.179*** (8.58)	-0.100*** (-3.09)	0.283*** (4.01)	-0.065* (-1.68)
#Obs	5,326	5,314	5,262	5,262	5,262	5,499	3,913	5,122	4,940
Panel B: Changes After the Anti-Corruption Campaign: Investigated Firms and Propensity-Score Matched Firms									
Post	-0.004** (-2.50)	0.032*** (3.08)	0.006* (1.70)	0.001 (0.51)	-0.007*** (-5.01)	0.173*** (9.89)	-0.106*** (-3.97)	0.259*** (4.46)	-0.061* (-1.65)
#Obs	3,957	3,942	4,022	4,022	4,022	4,039	2,986	3,920	3,801

Table IA.20

Regressions of Corruption Measures on the Investigation Dummy: All Listed Firms

This table presents the difference-in-differences regression of firm-level corruption measures on investigation dummies. The sample includes all Chinese listed firms from 2010 to 2018. Treatment[0] is a dummy variable that equals one if the firm is investigated in the current year t . Treatment[1] is a dummy variable that equals one if the firm is investigated in the year $t-1$. Treatment[2] is a dummy variable that equals one if the firm is investigated in the year $t-2$. Treatment[3, ∞] is a dummy variable that equals one if the firm is investigated in the year $t-3$ or before. The firm-level corruption indicators include: 1) *Abnormal CEO compensation*, calculated as the residual from regression of log CEO compensation on firm size, performance and CEO age within each industry-year; 2) *CEO pay for performance* (CEO pay-for-performance sensitivity), which is the change in dollar value of CEO's stock and option holdings in response to one percent change in stock price, scaled by the sum of the dollar value change, CEO salary, and CEO bonus; 3) *Related-party sales*, scaled by revenue; 4) *Related-party loans*, scaled by total assets; 5) *Other receivable from parent* (Other receivables from parent firm, scaled by total assets); 6) # *Regulation breaches* (Number of regulation breaches in a year); 7) *Entertainment Expenditures* (Business entertainment expenditures, scaled by total assets); 8) *Operational inefficiency*, calculated as the growth of sales minus growth of net income; and 9) *Investment inefficiency*, calculated as the absolute value of the residual from the regression of investment on sales growth within each industry-year. Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except the number of regulation breaches, are Winsorized at 1% and 99% for each year. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. We exclude firms in the finance industry and their matched firms for the models using five measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. All models include firm fixed effects and year fixed effects. T-statistics based on standard errors clustered at the industry and year levels are reported in the parentheses. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. To ease reading, other receivables from parent firm, and business entertainment expenditures are expressed in percentage. Bold is used for numbers that are statistically significant at the 0.10 level.

	CEO Comp.	CEO Pay- Perf.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Op. Inefficiency	Inv. Inefficiency
Indep. Var.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment[0]	-0.049 (-0.51)	-0.012*** (-3.55)	0.014*** (3.09)	0.001 (0.69)	-0.004*** (-3.03)	0.303*** (5.19)	-0.018 (-1.31)	0.108 (0.86)	0.010 (0.65)
Treatment[1]	-0.380 (-1.23)	0.006 (0.52)	0.017*** (2.83)	0.001 (0.71)	-0.003** (-2.36)	0.193*** (3.29)	-0.009 (-0.72)	0.049 (1.38)	0.009 (0.69)
Treatment[2]	-0.284 (-1.17)	0.005 (0.32)	0.013** (2.48)	0.001 (0.88)	-0.004*** (-3.75)	0.095*** (3.93)	-0.010 (-0.88)	-0.020 (-0.17)	0.005 (0.63)
Treatment[3,∞]	-0.263 (-1.04)	0.006 (0.78)	0.017*** (2.60)	-0.001 (-0.55)	-0.004*** (-2.74)	0.094** (2.06)	0.004 (0.21)	-0.711*** (-5.37)	-0.008 (-0.63)
Ln(ME)	-0.005 (-0.17)	0.070*** (7.45)	0.001 (1.58)	-0.000** (-2.39)	0.002*** (2.74)	-0.029** (-2.49)	-0.010 (-1.23)	-0.318*** (-8.40)	-0.004 (-0.78)
SOE Dummy	0.018 (0.62)	-0.038** (-2.13)	0.028*** (4.48)	0.001*** (2.97)	0.002 (0.51)	-0.017 (-0.74)	-0.034 (-0.87)	0.088 (1.18)	-0.005 (-0.69)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	23,726	24,116	24,038	24,038	24,038	24,553	18,723	22,244	20,284
Adj. R ²	0.248	0.644	0.645	0.169	0.084	0.141	0.641	0.103	0.154

Table IA.21

Regressions of Corruption Measures on the Investigation Dummy: Investigated Firms and Propensity-Score Matched Firms

This table presents the difference-in-differences regression of firm-level corruption measures on investigation dummies. The sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019, as well as their propensity-score matched firms. Specifically, in each year t , we run a probit model of investigation dummy on lagged corruption indicators including monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, lagged firm characteristics including the natural log of market capitalization and SOE dummy, year, industry, and region fixed effects using all listed firms from the year 2013 to year $t-1$. We use the coefficients from the probit regression, corruption indicators, and firm characteristics at the end of year $t-1$ to calculate the predicted investigation probability of each firm in year t . Then we use the nearest neighbor matching technique without replacement and setting the caliper to 0.25. This procedure yields a final sample of 279 pairs of treatment and control firms with valid data. The sample period is from 2010 to 2018. $Treatment[0]$ is a dummy variable that equals one if the firm is investigated in the current year t . $Treatment[1]$ is a dummy variable that equals one if the firm is investigated in the year $t-1$. $Treatment[2]$ is a dummy variable that equals one if the firm is investigated in the year $t-2$. $Treatment[3, \infty]$ is a dummy variable that equals one if the firm is investigated in the year $t-3$ or before. The firm-level corruption indicators include: 1) *Abnormal CEO compensation*, calculated as the residual from regression of log CEO compensation on firm size, performance and CEO age within each industry-year; 2) *CEO pay for performance* (CEO pay-for-performance sensitivity), which is the change in dollar value of CEO's stock and option holdings in response to one percent change in stock price, scaled by the sum of the dollar value change, CEO salary, and CEO bonus; 3) *Related-party sales*, scaled by revenue; 4) *Related-party loans*, scaled by total assets; 5) *Other receivable from parent* (Other receivables from parent firm, scaled by total assets); 6) *# Regulation breaches* (Number of regulation breaches in a year); 7) *Entertainment Expenditures* (Business entertainment expenditures, scaled by total assets); 8) *Operational inefficiency*, calculated as the growth of sales minus growth of net income; and 9) *Investment inefficiency*, calculated as the absolute value of the residual from the regression of investment on sales growth within each industry-year. Operational inefficiency is Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except the number of regulation breaches, are Winsorized at 1% and 99% for each year. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. We exclude firms in the finance industry and their matched firms for the models using five measures: related-party sales, related-party loans, other receivables from parent firm, operational inefficiency, and investment inefficiency. All models include firm fixed effects and year fixed effects. T-statistics based on standard errors clustered at the industry and year levels are reported in the parentheses. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. To ease reading, other receivables from parent firm, and business entertainment expenditures are expressed in percentage. Bold is used for numbers that are statistically significant at the 0.10 level.

	CEO Comp.	CEO Pay- Perf.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Op. Inefficiency	Inv. Inefficiency
Indep. Var.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment[0]	0.013 (0.12)	0.007 (1.04)	0.017*** (3.34)	0.001 (0.73)	-0.004*** (-4.86)	0.271*** (4.95)	-0.031** (-2.48)	-0.040 (-0.25)	0.007 (0.39)
Treatment[1]	-0.388 (-1.34)	0.035*** (3.39)	0.025*** (6.94)	0.001 (0.82)	-0.005*** (-3.97)	0.187*** (3.93)	-0.019 (-1.07)	0.033 (0.35)	0.005 (0.33)
Treatment[2]	-0.519** (-2.26)	0.038*** (13.44)	0.017*** (3.10)	0.002 (0.94)	-0.005*** (-3.45)	0.103*** (3.09)	-0.022 (-0.64)	-0.100 (-0.53)	0.006 (0.55)
Treatment[3,∞]	-0.632** (-2.50)	0.066*** (3.63)	0.028*** (4.91)	0.000 (0.21)	-0.004** (-2.50)	0.081 (1.19)	-0.031 (-1.18)	-0.691*** (-5.08)	-0.000 (-0.01)
Ln(ME)	-0.012 (-0.23)	0.030*** (5.51)	0.008*** (3.33)	0.000 (0.92)	0.001 (1.09)	-0.009 (-0.42)	-0.017** (-2.44)	-0.286*** (-9.39)	-0.009 (-1.22)
SOE Dummy	0.094 (1.22)	-0.033* (-1.81)	0.034* (1.85)	0.004*** (7.46)	0.004** (2.26)	0.001 (0.01)	0.026 (1.03)	0.112 (0.73)	-0.002 (-0.38)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	4,378	4,434	4,485	4,485	4,485	4,502	3,338	4,389	4,247
Adj. R ²	0.199	0.643	0.749	0.270	0.104	0.140	0.584	0.099	0.161

Table IA.22

Difference of Accounting Manipulation and Financial Market Environment Measures for All Firms, SOE firms and Non-SOE firms: Before and After the Start of the Anti-Corruption Campaign

This table presents regression analysis to examine the differences of accounting manipulation and financial market environment measures between the average of 2010-2011 and the average of 2013-2018 (after the start of the anti-corruption campaign) for all Chinese listed firms, SOE and non-SOE firms. The variables of interest include: 1) *Abs.(DACC)* (Absolute value of discretionary accruals, scaled by total assets); 2) *Standardized difference of small profit and standardized difference of small loss*, which measure earnings discontinuity; and 3) *Normalized volatility and differenced volatility* around earnings announcements. The sample includes all Chinese firms in the years of 2010-2011 and 2013-2018. In Panel A, the independent variable is the Post dummy, which equals one for the years of 2013-2018 and zero for the years of 2010-2011. In Panel B, the main independent variables are the interaction term between the Post dummy and SOE dummy, and the interaction term between the Post dummy and NonSOE dummy. The regression also includes the SOE dummy but does not report its coefficient for brevity. We also report F-tests on the differences between the coefficients on the two interaction terms. All the variables are Winsorized at 1% and 99% for each year. We exclude financial firms for the measure of the absolute value of discretionary accruals. T-statistics are calculated using standard errors clustered by industry and by year. Bold is used for numbers that are statistically significant at the 0.10 level.

	Dependent Variables				
	Absolute Accruals	Earnings Discontinuity		Return Volatility around Earnings Announcement	
		Small Profit	Small Loss	Normalized Volatility	Differenced Volatility
Panel A: Changes After the Anti-Corruption Campaign					
Post	-0.006**	0.029***	-0.00855	-0.101**	-0.092
	(-2.25)	(3.24)	(-1.44)	(-2.08)	(-1.28)
#Obs	20,441	20,448	20,448	20,411	20,411
Panel B: Changes After the Anti-Corruption Campaign: SOEs vs. Non-SOEs					
Post×SOE (1)	-0.006***	0.014	-0.004	-0.069	-0.081
	(-2.58)	(1.14)	(-0.46)	(-1.31)	(-1.13)
Post×NonSOE (2)	-0.009**	0.046***	-0.009	-0.133***	-0.120
	(-2.39)	(3.47)	(-1.05)	(-2.86)	(-1.63)
Controls	Yes	n.a.	n.a.	Yes	Yes
F-test for (1) = (2)	0.78	3.19	0.19	14.31	1.74
(p-value)	0.377	0.074	1.336	0.000	0.187
#Obs	20,411	20,448	20,448	20,411	20,411

Table IA.23

Abnormal Corruption Measures for All Chinese Firms in 2005-2018: Benchmarked to Hong Kong Firms

This table presents the annual averages of abnormal corruption measures for all Chinese listed firms from 2005 to 2018. The sample includes all firms listed on Shanghai and Shenzhen stock exchanges (A shares). For each Chinese firm, we identify a matched firm using the propensity score matching based on the corruption measures. Abnormal corruption measures are calculated as the differences between Chinese firms and matched Hong Kong firms. The firm-level corruption measures include: 1) *Standardized difference of small profit and standardized difference of small loss*, which measures earnings discontinuity; 2) *Abs.(DACC)* (Absolute value of discretionary accruals, scaled by total assets); 3) *# Regulation breaches* (Number of regulation breaches in a year); 4) *Operational Inefficiency*, calculated as the growth of sales minus growth of net income; 5) *Investment inefficiency*, calculated as the absolute value of the residual from the regression of investment on sales growth within each industry-year; 6) *Normalized volatility and differenced volatility* around an earnings announcement. The absolute value of discretionary accruals and operational inefficiency are Winsorized at 5% and 95% for each year because of the large number of outliers. All the other firm-level corruption measures, except the number of regulation breaches, are Winsorized at the 1% and 99% levels for each year. We exclude financial firms for three measures: the absolute value of discretionary accruals, operational inefficiency, and investment inefficiency. We also report differences between 2010-2011 (before the anti-corruption campaign) and the average of 2013-2018 (after the start of the anti-corruption campaign), as well as the associated t-statistics calculated using standard errors clustered by industry and by year. Bold is used for numbers that are statistically significant at the 0.10 level.

Year	Earnings Discontinuity		Abs. (DACC)	# Regulation Breaches	Operational Inefficiency	Investment Inefficiency	Return Volatility around Earnings Announcement	
	Small Profit	Small Loss					Normalized Volatility	Differenced Volatility
2005	0.063	-0.043	-0.004	0.046	1.070	-0.059	-0.236	-0.004
2006	0.035	-0.037	-0.006	0.051	0.322	-0.036	-0.075	0.000
2007	0.042	-0.053	-0.009	0.059	0.271	-0.027	0.105	0.000
2008	0.159	-0.155	-0.018	0.052	0.101	0.058	-0.200	-0.004
2009	0.019	-0.029	-0.012	0.109	1.019	0.056	-0.348	-0.007
2010	0.087	-0.058	-0.045	0.108	0.069	-0.055	-0.082	0.000
2011	0.113	-0.068	-0.033	0.132	-0.008	0.090	0.122	0.003
2012	0.073	-0.058	-0.045	0.213	0.188	0.070	-0.179	-0.003
2013	0.082	-0.019	-0.058	0.232	-0.175	0.080	0.072	0.000
2014	0.066	-0.070	-0.044	0.229	0.200	0.020	-0.019	0.001
2015	0.134	-0.068	-0.034	0.229	0.513	0.039	-0.247	-0.004
2016	0.236	-0.101	-0.019	0.212	0.133	0.052	0.036	0.001
2017	0.127	-0.130	-0.007	0.210	0.266	0.001	-0.262	-0.004
2018	0.021	-0.023	0.009	0.249	0.471	0.017	-0.048	-0.001
2013~2018- 2010~2011 Diff.	0.010	-0.005	0.015	0.107	0.226	0.014	-0.110	-0.003
t-stat	(0.97)	(-0.70)	(1.59)	(9.45)	(2.50)	(0.28)	(-1.28)	(-1.77)

Table IA.24**Event Stock Returns of Investigated Firms on and after the Investigations**

This table presents event firms' short-term returns around the corruption investigation events. The event firms include 408 Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019. We calculate cumulative abnormal returns (CARs) for all firms in the [-1,+1] and the [-1,+15] windows, where day 0 is the date of investigation announcement using three approaches: 1) Daily return in excess of market return; 2) Size-adjusted return by subtracting return of the firm's size decile portfolio; 3) DGTW-adjusted return. T-statistics associated with returns are also reported. Bold is used for numbers that are statistically significant at the 0.10 level.

	Market-Adj. Ret.		Size-Adj. Ret.		DGTW-Adj. Ret.	
	Return	t-stat	Return	t-stat	Return	t-stat
CAR [-1,+1]	-1.00%	(-3.22)	-0.62%	(-2.15)	-0.65%	(-2.37)
CAR [-1, +15]	-2.06%	(-3.09)	-2.00%	(-3.11)	-2.19%	(-3.64)

Table IA.25

Stock Returns of Same-Industry or Same-Province Non-SOEs upon SOE Investigation Events

This table presents short-term stock returns of same-industry or same-province Non-SOEs upon SOE investigation events. We consider SOE investigation events in two sample periods: 1) from the beginning of the anti-corruption campaign on December 4, 2012 to June 30, 2019; 2) from the beginning of the anti-corruption campaign on December 4, 2012 to December 31, 2015. Industry classification is based on CSRC's 2012 industry classification codes. Province of a firm is based on the location of the firm's headquarter. We calculate cumulative abnormal returns (CARs) for all firms in the [-1,+1] and the [-1,+15] windows, where day 0 is the date of investigation announcement., using three approaches: 1) Daily return in excess of market return; 2) Size-adjusted return by subtracting return of the firm's size decile portfolio; 3) DGTW-adjusted return. Panel A reports CARs for same-industry Non-SOEs upon SOE investigation events. Panel B reports for same-province Non-SOEs upon SOE investigation events. T-statistics based on standard errors clustered at date are also reported. Bold is used for numbers that are statistically significant at the 0.10 level.

Panel A: Abnormal Returns of Same-Industry Non-SOEs upon SOE Investigation Events						
	Market-Adj. Ret.		Size-Adj. Ret.		DGTW-Adj. Ret.	
	Return	t-stat	Return	t-stat	Return	t-stat
December 4, 2012 to June 30, 2019						
CAR [-1,+1]	-0.06%	(-1.35)	-0.09%	(-2.02)	-0.05%	(-1.46)
CAR [-1, +15]	0.60%	(1.11)	0.28%	(2.20)	0.29%	(2.73)
December 4, 2012 to December 31, 2015						
CAR [-1,+1]	-0.08%	(-0.97)	-0.12%	(-1.58)	-0.10%	(-1.49)
CAR [-1, +15]	1.69%	(1.72)	0.65%	(3.01)	0.61%	(3.29)
Panel B: Abnormal Returns of Same-Province Non-SOEs upon SOE Investigation Events						
	Market-Adj. Ret.		Size-Adj. Ret.		DGTW-Adj. Ret.	
	Return	t-stat	Return	t-stat	Return	t-stat
December 4, 2012 to June 30, 2019						
CAR [-1,+1]	-0.03%	(-0.47)	-0.18%	(-2.36)	-0.10%	(-1.53)
CAR [-1, +15]	1.20%	(1.75)	0.62%	(2.30)	0.53%	(2.71)
December 4, 2012 to December 31, 2015						
CAR [-1,+1]	-0.10%	(-0.94)	-0.24%	(-1.91)	-0.18%	(-1.61)
CAR [-1, +15]	2.26%	(2.09)	1.45%	(3.74)	1.09%	(4.30)

Table IA.26

Regressions of Performance Measures on Investigation Dummy: All Listed Firms

This table presents the difference-in-differences regression of firm-level performance measures on investigation dummies. The sample includes all Chinese listed firms from 2010 to 2018. Treatment[0] is a dummy variable that equals to one if the firm is investigated in current year t . Treatment[1] is a dummy variable that equals one if the firm is investigated in the year $t-1$. Treatment[2] is a dummy variable that equals one if the firm is investigated in the year $t-2$. Treatment[3, ∞] is a dummy variable that equals one if the firm is investigated in the year $t-3$ or before. The firm-level performance measures include: 1) *C5 Adj. Ret.*, annual 5-characteristics (firm size, book-to-market ratio, momentum, profitability, and investment) benchmark model adjusted return following Bessembinder, Cooper and Zhang (2019); 2) *C14 Adj. Ret.*, annual 14-characteristics (firm size, book-to-market ratio, momentum, profitability, investment, beta, accrual, dividend, log LR return, idiosyncratic risk, illiquidity, turnover, leverage, sales/price) benchmark model adjusted return following Bessembinder, Cooper and Zhang (2019); 3) *ROA*, net income divided by beginning of year total asset; 4) *OPOA*, operating income divided by beginning of year total asset ; 5) *Sales Growth*, current year sales divided by lagged one-year sales minus one; 6) *Profit Margin*, net income divided by sales. The regressions also control for firm characteristics including the natural log of market capitalization and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. All models include firm fixed effects and year fixed effects. T-statistics calculated using standard errors clustered by industry and by year are reported in the parentheses. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers that are statistically significant at the 0.10 level.

Indep. Var.	C5 Adj. Ret.	C14 Adj. Ret.	ROA	OPOA	Sales Growth	Profit Margin
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment[0]	-0.028 (-0.71)	-0.025 (-0.63)	-0.018*** (-3.63)	-0.013*** (-4.04)	-0.083*** (-2.90)	-0.016** (-2.50)
Treatment[1]	0.056 (0.99)	0.060 (1.05)	-0.011*** (-3.23)	-0.009*** (-3.05)	-0.098* (-1.75)	-0.008*** (-2.69)
Treatment[2]	0.113** (2.32)	0.119*** (2.81)	-0.004 (-1.01)	-0.001 (-0.23)	-0.084 (-1.24)	-0.003 (-0.35)
Treatment[3, ∞]	0.145* (1.89)	0.148** (1.97)	0.027*** (8.31)	0.031*** (8.18)	-0.002 (-0.04)	0.041*** (6.39)
Ln(ME)	0.359*** (3.64)	0.355*** (3.66)	0.020*** (4.96)	0.025*** (6.06)	0.070*** (2.89)	0.023*** (4.39)
SOE Dummy	-0.125*** (-2.62)	-0.120** (-2.55)	-0.027** (-2.57)	-0.026*** (-3.05)	-0.142*** (-3.35)	-0.024*** (-2.90)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	20,764	20,735	22,750	22,750	22,732	24,024
Adj. R ²	0.274	0.278	0.312	0.383	0.011	0.467

Table IA.27

Regressions of Performance Measures on Investigation Dummy: Investigated Firms and Propensity-Score Matched Sample

This table presents the difference-in-differences regression of firm-level performance measures on investigation dummies. The sample includes Chinese listed firms with corrupt managers investigated from the beginning of the anti-corruption campaign on December 4, 2012, to June 30, 2019, as well as their propensity-score matched firms. Specifically, in each year t , we run a probit model of investigation dummy on lagged corruption indicators including monitoring by minority shareholders, abnormal CEO compensation, CEO pay-for-performance, CEO near-retirement dummy, related-party sales, related-party loans, other receivables, regulation breaches, operational inefficiency, investment inefficiency, corruption postings, lagged firm characteristics including the natural log of market capitalization and SOE dummy, year, industry, and region fixed effects using all listed firms from the year 2013 to year $t-1$. We use the coefficients from the probit regression, corruption indicators, and firm characteristics at the end of year $t-1$ to calculate predicted investigation probability of each firm in year t . Then we use the nearest neighbor matching technique without replacement and setting the caliper to 0.25. This procedure yields a final sample of 279 pairs of treatment and control firms with valid data. The sample period is from 2010 to 2018. $Treatment[0]$ is a dummy variable that equals one if the firm is investigated in current year t . $Treatment[1]$ is a dummy variable that equals one if the firm is investigated in the year $t-1$. $Treatment[2]$ is a dummy variable that equals one if the firm is investigated in the year $t-2$. $Treatment[3, \infty]$ is a dummy variable that equals one if the firm is investigated in the year $t-3$ or before. The firm-level performance measures include: 1) *C5 Adj. Ret.*, annual 5-characteristics (firm size, book-to-market ratio, momentum, profitability, and investment) benchmark model adjusted return following Bessembinder, Cooper and Zhang (2019); 2) *C14 Adj. Ret.*, annual 14-characteristics (firm size, book-to-market ratio, momentum, profitability, investment, beta, accrual, dividend, log LR return, idiosyncratic risk, illiquidity, turnover, leverage, sales/price) benchmark model adjusted return following Bessembinder, Cooper, and Zhang (2019); 3) *ROA*, net income divided by beginning of year total asset; 4) *OPOA*, operating income divided by beginning of year total asset; 5) *Sales Growth*, the current year sales divided by lagged one-year sales minus one; 6) *Profit Margin*, net income divided by sales. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. All models include firm fixed effects and year fixed effects. T-statistics calculated using standard errors clustered by industry and by year are reported in the parentheses. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers that are statistically significant at the 0.10 level.

	C5 Adj. Ret.	C14 Adj. Ret.	ROA	OPOA	Sales Growth	Profit Margin
Indep. Var.	(1)	(2)	(3)	(4)	(5)	(6)
Treatment[0]	-0.034 (-0.97)	-0.032 (-0.88)	-0.021*** (-3.62)	-0.019*** (-3.65)	-0.079*** (-3.36)	-0.016** (-2.27)
Treatment[1]	-0.019 (-0.62)	-0.022 (-0.65)	-0.017*** (-4.77)	-0.017*** (-6.41)	-0.073 (-0.74)	-0.013*** (-2.88)
Treatment[2]	0.088*** (2.75)	0.090*** (3.00)	-0.010 (-1.35)	-0.010 (-1.45)	-0.057 (-0.86)	-0.015 (-1.13)
Treatment[3,∞]	0.062* (1.94)	0.057* (1.95)	0.009* (1.69)	0.009 (1.52)	-0.058** (-2.13)	0.021*** (4.23)
Ln(ME)	0.349*** (4.58)	0.343*** (4.69)	0.021*** (4.54)	0.027*** (4.62)	0.005 (0.35)	0.024** (3.64)
SOE Dummy	-0.074* (-1.94)	-0.062 (-1.41)	-0.029*** (-4.01)	-0.032*** (-4.54)	-0.141** (-3.98)	-0.013 (-1.22)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	4,251	4,246	4,407	4,407	4,406	4,485
Adj. R ²	0.316	0.316	0.350	0.419	0.030	0.499

Table IA.28

Performance of Firms in the Entertainment Related Industry

This table presents difference-in-differences regressions of firm-level performance measures on the interaction of entertainment related industry dummy with post anti-campaign dummies. Entertainment related industries are defined to be the five industries in CSRC 90-industry classification: 1) alcohol, beverage and refined tea manufacturing, 2) tobacco manufacturing, 3) accommodation industry, 4) catering industry, and 5) entertainment industry, excluding firms mainly selling non-alcoholic beverage. Firms in the entertainment related industries are further divided into luxury entertainment industry vs. non-luxury entertainment industry following Ke, Liu and Tang (2016). $Yr[2013,14]$ is a dummy variable that equals to one for years 2013 and 2014. $Yr[2015,16]$ and $Yr[2017,2018]$ are defined similarly. The sample includes all Chinese listed firms from 2010 to 2018. The firm-level performance measures include: 1) *C5 Adj. Ret.*, annual 5-characteristics (firm size, book-to-market ratio, momentum, profitability, and investment) benchmark model adjusted return following Bessembinder, Cooper and Zhang (2019); 2) *C14 Adj. Ret.*, annual 14-characteristics (firm size, book-to-market ratio, momentum, profitability, investment, beta, accrual, dividend, log LR return, idiosyncratic risk, illiquidity, turnover, leverage, sales/price) benchmark model adjusted return following Bessembinder, Cooper and Zhang (2019); 3) *ROA*, net income divided by beginning of year total asset; 4) *OPOA*, operating income divided by beginning of year total asset; 5) *Sales Growth*, current year sales divided by lagged one-year sales minus one; 6) *Profit Margin*, net income divided by sales. The regressions also control for firm characteristics including the natural log of market capitalization, and a dummy variable for state-owned enterprises (SOE). All Chinese firms' fiscal years end in December so the fiscal year coincides with the calendar year. All models include firm fixed effects and year fixed effects. T-statistics calculated using standard errors clustered by industry and by year are reported in the parentheses. ***, **, and * represent statistical significance at the 0.01, 0.05, and 0.10 levels, respectively. Bold is used for numbers that are statistically significant at the 0.10 level.

Indep. Var.	C5 Adj. Ret.		C14 Adj. Ret.		ROA		OPOA		Sales Growth		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Entertain*Yr[2013,14]	-0.174** (-2.07)		-0.199*** (-2.79)		-0.031*** (-3.13)		-0.041*** (-3.00)		-0.161** (-2.24)		-0.016 (-1.53)	
Entertain*Yr[2015,16]	0.065 (1.06)		0.124 (1.59)		-0.023 (-1.36)		-0.036** (-2.20)		0.063 (0.53)		-0.003 (-0.18)	
Entertain*Yr[2017,18]	0.158* (1.91)		0.166** (2.11)		-0.012 (-0.65)		-0.026 (-1.52)		0.032 (0.27)		-0.005 (-0.36)	
Luxury*Yr[2013,14]		-0.183 (-1.41)		-0.187 (-1.63)		-0.066** (-2.01)		-0.092* (-2.04)		-0.212* (-1.68)		-0.054** (-2.14)
Luxury*Yr[2015,16]		0.040 (0.32)		0.140 (1.17)		-0.053** (-2.53)		-0.076** (-2.63)		-0.033 (-0.49)		-0.017 (-1.17)
Luxury*Yr[2017,18]		0.189** (2.46)		0.221*** (2.80)		-0.015 (-0.63)		-0.034 (-0.95)		0.181 (1.14)		0.001 (0.06)
Non-Luxury*Yr[2013,14]		-0.167** (-2.27)		-0.207*** (-2.99)		-0.010 (-1.01)		-0.011 (-0.76)		-0.129 (-1.40)		0.006 (0.72)
Non-Luxury*Yr[2015,16]		0.080 (0.53)		0.112 (0.68)		-0.006 (-0.34)		-0.013 (-1.09)		0.111 (0.61)		0.004 (0.16)
Non-Luxury*Yr[2017,18]		0.137 (1.31)		0.129 (1.30)		-0.010 (-0.72)		-0.021* (-2.15)		-0.063 (-0.59)		-0.009 (-0.38)
Ln(ME)	0.356** (3.59)	0.356** (3.60)	0.353** (3.61)	0.353** (3.61)	0.020*** (4.90)	0.020*** (4.92)	0.025*** (6.00)	0.024*** (6.06)	0.073** (2.99)	0.073** (2.98)	0.023*** (4.29)	0.023*** (4.28)
SOE Dummy	-0.129** (-2.62)	-0.129** (-2.59)	-0.124* (-2.56)	-0.124* (-2.52)	-0.027** (-2.60)	-0.027** (-2.60)	-0.026** (-3.07)	-0.026** (-3.06)	-0.143** (-3.35)	-0.142** (-3.36)	-0.024** (-2.97)	-0.024** (-3.02)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Obs	20,764	20,764	20,735	20,735	22,750	22,750	22,750	22,750	22,732	22,732	24,024	24,024
Adj. R ²	0.273	0.273	0.278	0.278	0.310	0.311	0.381	0.382	0.011	0.011	0.465	0.466

Table IA.29

Difference of Corruption Measures for All Firms, Corruption-Prone and Non-Corruption-Prone Industries, SOE and Non-SOE firms: Before and After the Start of the Anti-corruption Campaign

This table is similar to Table IA.18 except that t-statistics are based on unclustered standard error.

	Dependent Variables								
	CEO Comp. (%)	CEO Pay- Perform.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Operational Inefficiency	Inv. Inefficiency
Panel A: All Listed Firms									
Post	-0.001	0.109***	-0.003**	-0.000	-0.007***	0.105***	-0.074***	0.159***	-0.062***
	(-2.20)	(17.41)	(-1.98)	(-1.36)	(-12.72)	(10.34)	(-13.85)	(5.60)	(-25.14)
Panel B: Corruption-Prone Industries vs. Non-Corruption-Prone Industries									
Post×CorruptInd (1)	-0.002	0.027	0.013	-0.001	-0.016***	0.049	-0.080***	0.233**	-0.034***
	(-0.81)	(1.46)	(1.46)	(-0.74)	(-5.65)	(1.41)	(-3.92)	(2.17)	(-5.87)
Post×NonCorruptInd (2)	0.012**	0.101***	-0.000	-0.000	0.002	0.102	-0.008	0.001	-0.065***
	(2.38)	(2.65)	(-0.01)	(-0.13)	(0.28)	(1.47)	(-0.19)	(0.00)	(-4.73)
F-test for (1) = (2) (p-value)	6.19	2.99	0.44	0.05	7.70	0.47	2.37	0.84	4.18
	0.013	0.084	0.506	0.832	0.006	0.494	0.124	0.360	0.041
Panel C: SOEs vs. Non-SOEs									
Post×SOE (1)	-0.004***	0.012	0.006**	0.000	-0.010***	0.119***	-0.116***	0.160***	-0.059***
	(-3.60)	(1.43)	(2.51)	(0.44)	(-12.10)	(7.70)	(-14.25)	(3.87)	(-17.38)
Post×NonSOE (2)	-0.004***	0.119***	-0.000	-0.000	-0.004***	0.090***	-0.071***	0.156***	-0.060***
	(-4.69)	(15.49)	(-0.21)	(-1.00)	(-5.44)	(6.64)	(-10.23)	(3.93)	(-16.62)
F-test for (1) = (2) (p-value)	0.13	84.71	4.14	0.97	31.16	2.05	17.86	0.00	0.09
	0.717	0.000	0.042	0.325	0.000	0.152	0.000	0.944	0.760

Table IA.30

Difference of Corruption Measures for Event Firms and Matched Firms: Before and After the Start of the Anti-Corruption Campaign

This table is similar to Table IA.19 except that t-statistics are based on unclustered standard error.

	Dependent Variables								
	CEO Comp. (%)	CEO Pay- Perform.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Operational Inefficiency	Inv. Inefficiency
Panel A: Changes After the Anti-Corruption Campaign: Investigated Firms and Matched Firms Using the Stepwise Approach									
Post	-0.004*** (-2.94)	0.048*** (6.32)	0.009** (2.15)	0.001 (1.11)	-0.010*** (-4.98)	0.179*** (12.25)	-0.100*** (-8.76)	0.283*** (6.18)	-0.065*** (-9.87)
Panel B: Changes After the Anti-Corruption Campaign: Investigated Firms and Matched Firms Using the Stepwise Approach									
Post	-0.004*** (-3.41)	0.032*** (3.61)	0.006 (1.19)	0.001 (0.98)	-0.007*** (-3.38)	0.173*** (10.77)	-0.106*** (-8.19)	0.259*** (4.93)	-0.061*** (-8.18)

Table IA.31

Regressions of Corruption Measures on the Investigation Dummy

Panel A is similar to Table IA.20 except that t-statistics are based on unclustered standard error. Panel B is similar to Table IA.21 except that t-statistics are based on unclustered standard error.

	CEO Comp.	CEO Pay- Perf.	Related Sales	Related Loans	Other Receiv. (%)	Reg. Breaches	Entertain. Exp. (%)	Op. Inefficiency	Inv. Inefficiency
Panel A: All Listed Firms									
Indep. Var.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment[0]	-0.049 (-0.42)	-0.012 (-1.12)	0.014*** (3.06)	0.001 (1.36)	-0.004** (-2.05)	0.303*** (4.97)	-0.018 (-1.64)	0.108 (0.89)	0.010 (1.19)
Treatment[1]	-0.380** (-2.01)	0.006 (0.60)	0.017*** (3.01)	0.001 (0.71)	-0.003 (-1.31)	0.193*** (3.54)	-0.009 (-0.62)	0.049 (0.38)	0.009 (1.09)
Treatment[2]	-0.284 (-1.52)	0.005 (0.50)	0.013** (2.09)	0.001 (0.82)	-0.004* (-1.73)	0.095** (1.97)	-0.010 (-0.76)	-0.020 (-0.14)	0.005 (0.54)
Treatment[3,∞]	-0.263 (-1.38)	0.006 (0.60)	0.017** (2.57)	-0.001 (-0.53)	-0.004 (-1.58)	0.094** (2.02)	0.004 (0.22)	-0.711*** (-5.93)	-0.008 (-1.03)
Panel B: Investigated Firms and Propensity-Score Matched Firms									
Treatment[0]	0.013 (0.10)	0.007 (0.55)	0.017*** (3.13)	0.001 (1.04)	-0.004 (-1.55)	0.271*** (4.10)	-0.031** (-2.25)	-0.040 (-0.30)	0.007 (0.78)
Treatment[1]	-0.388* (-1.77)	0.035*** (2.61)	0.025*** (3.58)	0.001 (0.79)	-0.005 (-1.64)	0.187*** (2.98)	-0.019 (-0.97)	0.033 (0.21)	0.005 (0.50)
Treatment[2]	-0.519** (-2.26)	0.038*** (2.71)	0.017** (2.37)	0.002 (1.36)	-0.005 (-1.42)	0.103 (1.64)	-0.022 (-1.13)	-0.100 (-0.60)	0.006 (0.66)
Treatment[3,∞]	-0.632** (-2.49)	0.066*** (4.07)	0.028*** (3.30)	0.000 (0.21)	-0.004 (-1.18)	0.081 (1.30)	-0.031 (-1.19)	-0.691*** (-4.58)	-0.000 (-0.00)

Table IA.32

Difference of Corruption Measures for All Firms, SOE firms and Non-SOE firms: Before and After the Start of the Anti-corruption Campaign

This table is similar to Table IA.22 except that t-statistics are based on unclustered standard error.

	Dependent Variables				
	Absolute Accruals	Earnings Discontinuity		Return Volatility around Earnings Announcement	
		Small Profit	Small Loss	Normalized Volatility	Differenced Volatility
Panel A: All Listed Firms					
Post	-0.006*** (-6.08)	0.029*** (3.24)	-0.00855 (-1.44)	-0.101*** (-8.77)	-0.092*** (-4.76)
Panel B: SOEs vs. Non-SOEs					
Post×SOE (1)	-0.006*** (-3.75)	0.014 (1.14)	-0.004 (-0.46)	-0.069*** (-3.96)	-0.081*** (-2.78)
Post×NonSOE (2)	-0.009*** (-6.13)	0.046*** (3.47)	-0.009 (-1.05)	-0.133*** (-8.65)	-0.120*** (-4.67)
F-test for (1) = (2) (p-value)	2.36 0.125	3.19 0.074	0.19 1.336	7.36 0.007	0.97 0.325

Table IA.33

Regressions of Performance Measures on Investigation Dummy

Panel A is similar to Tables IA.26 except that t-statistics are based on unclustered standard error. Panel B is similar to Tables IA.27 except that t-statistics are based on unclustered standard error.

	C5 Adj. Ret.	C14 Adj. Ret.	ROA	OPOA	Sales Growth	Profit Margin
Panel A: All Listed Firms						
Indep. Var.	(1)	(2)	(3)	(4)	(5)	(6)
Treatment[0]	-0.028 (-1.10)	-0.025 (-0.98)	-0.018*** (-3.85)	-0.013*** (-3.01)	-0.083** (-2.50)	-0.016** (-2.51)
Treatment[1]	0.056** (2.04)	0.060** (2.22)	-0.011** (-2.29)	-0.009* (-1.74)	-0.098** (-2.15)	-0.008 (-1.12)
Treatment[2]	0.113*** (3.94)	0.119*** (4.25)	-0.004 (-0.74)	-0.001 (-0.18)	-0.084* (-1.88)	-0.003 (-0.33)
Treatment[3,∞]	0.145*** (5.93)	0.148*** (6.27)	0.027*** (4.85)	0.031*** (5.55)	-0.002 (-0.03)	0.041*** (5.77)
Panel B: Investigated Firms and Propensity-Score Matched Sample						
Treatment[0]	-0.034 (-1.21)	-0.032 (-1.12)	-0.021*** (-4.09)	-0.019*** (-3.92)	-0.079* (-1.88)	-0.016** (-2.36)
Treatment[1]	-0.019 (-0.62)	-0.022 (-0.72)	-0.017*** (-2.80)	-0.017*** (-2.71)	-0.073 (-1.19)	-0.013 (-1.61)
Treatment[2]	0.088*** (2.66)	0.090*** (2.77)	-0.010 (-1.58)	-0.010 (-1.59)	-0.057 (-0.95)	-0.015 (-1.62)
Treatment[3,∞]	0.062* (1.87)	0.057* (1.76)	0.009 (1.17)	0.009 (1.15)	-0.058 (-1.00)	0.021** (2.24)

Table IA.34

Performance of Firms in the Entertainment Related Industry

This table is similar to Table IA.28 except that t-statistics are based on unclustered standard error.

Indep. Var.	C5 Adj. Ret.		C14 Adj. Ret.		ROA		OPOA		Sales Growth		Profit Margin	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Entertain*Yr[2013,14]	-0.174*** (-3.49)		-0.199*** (-4.25)		-0.031*** (-3.57)		-0.041*** (-4.22)		-0.161** (-2.56)		-0.016 (-1.47)	
Entertain*Yr[2015,16]	0.065 (0.87)		0.124* (1.76)		-0.023** (-2.46)		-0.036*** (-3.54)		0.063 (0.51)		-0.003 (-0.23)	
Entertain*Yr[2017,18]	0.158*** (2.71)		0.166*** (2.95)		-0.012 (-1.22)		-0.026** (-2.48)		0.032 (0.39)		-0.005 (-0.36)	
Luxury*Yr[2013,14]		-0.183** (-2.25)		-0.187** (-2.53)		-0.066*** (-4.74)		-0.092*** (-5.44)		-0.212*** (-3.49)		-0.054*** (-3.04)
Luxury*Yr[2015,16]		0.040 (0.41)		0.140 (1.63)		-0.053*** (-5.21)		-0.076*** (-5.87)		-0.033 (-0.47)		-0.017 (-1.58)
Luxury*Yr[2017,18]		0.189* (1.82)		0.221** (2.20)		-0.015 (-1.17)		-0.034** (-2.03)		0.181 (1.41)		0.001 (0.07)
Non-Luxury*Yr[2013,14]		-0.167*** (-2.70)		-0.207*** (-3.47)		-0.010 (-0.95)		-0.011 (-1.03)		-0.129 (-1.42)		0.006 (0.48)
Non-Luxury*Yr[2015,16]		0.080 (0.76)		0.112 (1.12)		-0.006 (-0.44)		-0.013 (-0.98)		0.111 (0.58)		0.004 (0.23)
Non-Luxury*Yr[2017,18]		0.137** (2.05)		0.129** (2.01)		-0.010 (-0.79)		-0.021* (-1.69)		-0.063 (-0.61)		-0.009 (-0.49)

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