

2021-11

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<http://hdl.handle.net/10026.1/17795>

10.1016/j.econmod.2021.105640

Economic Modelling

Elsevier

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Does a CEO's private reputation impede corporate governance?

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ARTICLE INFO

JEL classification:

G30
G34
M12

Keywords:

CEO private Reputation
Corporate donation
CEO forced Turnover
Media exposure

ABSTRACT

The CEO's reputation is a valuable intangible resource for a firm. This study investigates the effect of a CEO's reputation on corporate governance efficiency. Using a sample of 3504 Chinese listed companies from 2002 to 2018, we find that the CEO's reputation built through corporate donations reduces the probability of their forced turnover. This effect is stronger when a firm/CEO has more media exposure and weaker when a firm's peer companies donate more. The mechanism of this effect is that the CEO's reputation is a valuable resource that makes it difficult for firms to find a substitute in a short time; therefore, firing a CEO who has a high reputation is costly to a firm, and reputable CEOs are likely to become entrenched. Our study demonstrates a new perspective on the CEO's reputation by explaining the failure of corporate governance and provides practical insights for constraining managers and promoting the management efficiency of enterprises.

1. Introduction

The literature documents that reputation is a valuable intangible resource not only for firms but also for individuals (e.g., Branco and Rodrigues, 2006; Borghesi et al., 2014). Specifically, a top manager's reputation (e.g., CEO's reputation) is especially crucial to a firm as an intangible resource. Some researchers argue that the reputation of managers established among stakeholders can provide competitive advantages and have positive effects on firm performance (Brammer and Millington, 2005; Branco and Rodrigues, 2006). However, a top manager's reputation can also raise costs to the firm. For example, one of the most significant costs to the firm is the agency cost, which occurs when altruistic CEOs obtain private reputation benefits through investing in charitable investments that even reduce the value of the firm (Borghesi et al., 2014).

Top managers' reputation is most gained through corporate charitable donation (Werbel and Carter, 2002; Walker, 2010; Flickinger et al., 2016). As the main decision maker in a firm, the CEO can greatly influence corporate social responsibility (CSR) investments such as charitable donations, which show a firm's care for the community and society (Barro and Barro, 1990; Tang et al., 2015). Therefore, stakeholders usually attribute the company's philanthropic behavior to the CEO's decisions (Graham et al., 2013). Consequently, when building a better public image of their firm, CEOs simultaneously gain their reputation (Branco

and Rodrigues, 2006; Borghesi et al., 2014). Importantly, this personal reputation association can greatly affect a firm's governance decisions, i.e., a firm must consider the benefits a CEO brings to the firm as well as the costs of the CEO who makes value-reducing decisions related to corporate charitable donations while building their reputation.

An important corporate governance event in a firm is forced CEO turnover, which is crucial to a firm's governance efficiency and enhances disciplining managers (Huson et al., 2001). However, CEOs try to avoid being forcefully replaced since it is harmful to their own benefits. For example, CEOs tend to make charitable connections with independent directors to reduce their probability of being replaced (Cai et al., 2020). Moreover, the literature has documented many other factors that are associated with the probability of CEO-forced turnover, such as political connections, family ownership, dual positions, individual board networks and regional air quality (Cao et al., 2017; Chen et al., 2013; Tran et al., 2017; Flickinger et al., 2016; Zhu et al., 2021). In this paper, we investigate the association between a CEO's reputation and corporate governance efficiency. Specifically, we try to answer whether the reputation of a CEO established through corporate donations deters the firm's forced turnover decisions on its CEO.

We document that the reduction in the probability of reputable CEOs being forcibly replaced is associated with an increase in their entrenchment. The mechanism is that the firm weakens discipline, as it is afraid of losing the benefits that are gained from the CEO's reputation. On the one

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<https://doi.org/10.1016/j.econmod.2021.105640>

Received 11 March 2020; Received in revised form 20 July 2021; Accepted 1 September 2021

Available online 4 September 2021

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hand, the CEO's reputation connects the goodwill and trust of stakeholders (Friedman, 1970; Borghesi et al., 2014), so dismissing a CEO with a better reputation may risk losing the continued availability of resources from relevant stakeholders. However, on the other hand, the establishment of a CEO's reputation requires the investment of time and resources, so it is difficult for companies to find a substitute for the CEO's reputation in a short time. As a result, CEOs with good reputations are likely to become entrenched. However, if CEOs are destroying more values than they are creating, they shall still be replaced. Thus, under this situation, firms hesitate to decide whether to fire a high-reputation CEO because of the trade-offs between losing the CEO's reputation benefits and improving managerial efficiency. Identifying the impacts (especially the negative effects) of a CEO's reputation on forced turnover is important since it helps to extend existing research areas on corporate governance.

We hand collected the CEO forced turnover data to construct our unique sample for the empirical analysis. Using a sample of 3504 Chinese listed companies from 2002 to 2018, our empirical findings reveal that CEOs with private reputations established through corporate donations have a lower probability of forced turnover. Furthermore, more media exposure can strengthen the negative charitable donations–turnover relationship since the corporate donations are known by a larger group of stakeholders that facilitate the CEO gaining more personal reputation. In contrast, more donations from corporations in the same industry or province weaken the negative relationship since they raise stakeholders' expectations of charitable donations and the threshold for establishing a personal reputation, and different features at the CEO-level (e.g., age, tenure, duality and gender) can also affect the relationship between charitable donations and CEO turnover. In addition, CEOs' private reputations can also cause a weaker turnover–performance relationship. Further analysis suggests that the mechanism of this effect is that the CEO's reputation is a valuable resource that makes it difficult for firms to find a substitute in a short time; therefore, firing CEOs with a higher reputation leads to a greater decline in corporate financial performance and shareholder value than firing CEOs with weaker reputations. Moreover, these empirical regularities do not stem from the endogenous selection of charitable giving and different dimensions of CEO characteristics, but they do reflect possible entrenchment due to the CEOs' private reputations. Our findings are robust after a battery of tests, i.e., CEO fixed effects and firm fixed effects in the analysis, propensity score matching (PSM), and instrumental analysis.

The primary contribution of this paper is to explicitly consider a managerial human capital dimension in explaining the failure of corporate governance and to provide new insights for the literature on managerial discipline. Specifically, we demonstrate a new role for top managers' reputation, i.e., a valuable tool for CEOs to build entrenchment. We also reveal that there are hidden costs of charitable donations, which complements the literature on agency cost theory and CSR. Second, there are many theoretical studies about CEOs' reputations, but only a few empirical studies are published given the difficulties in measuring reputation (Friedman, 1970; Milbourn, 2003). We provide new insights on measuring the personal reputation of CEOs and pave the way for empirical research in related fields.¹ Third, our empirical findings provide implications that are crucial for both practitioners and academics. The conclusion of this article emphasizes the adverse role of reputation in business management, which is usually ignored; thus, further research can explore the adverse role of reputation in different aspects of economic life from a broader perspective. Last, our study has corporate

¹ There are few empirical studies on CEO personal reputation; in addition to this article, we found one other article: Milbourn (2003) treats media exposure as one of many proxies for managerial reputation and demonstrates a positive link between media coverage and the efficiency of stock-based compensation. Different from our paper, this literature measures the personal reputation derived from a CEO's ability.

governance implications that firms should weaken the role of a CEO in the process of charitable giving while enhancing the role of the company and transforming the reputation from the CEO to the company. Strategically, firms can have independent foundations, in part to insulate CEOs from foundation allocation decisions.

The paper is organized as follows. Section 2 reviews the relevant literature and proposes the hypotheses. Section 3 describes the data, variables, and methodology. Section 4 discusses the empirical results and the channels through which top management's personal reputation influences corporate governance. Section 5 concludes the paper.

2. Theoretical framework and research hypotheses

2.1. Corporate donations and CEOs' private reputations

Corporate donations are generally considered a component of the larger domain of CSR, which can support education, culture, or relief funds for victims of natural disasters (Wang et al., 2008). The preliminary literature demonstrates that corporate donations can contribute to the personal reputation for top managers (Friedman, 1970; Masulis and Reza, 2015). On the one hand, corporate donations can create a better public image, which has a positive relationship with a corporate reputation (Brammer and Millington, 2005; Branco and Rodrigues, 2006; Borghesi et al., 2014). A CEO, as the most influential decision-maker in the company, has an important influence on all aspects of the company's decision-making (Graham et al., 2013). Therefore, stakeholders usually attribute the company's philanthropic behavior to the CEO's decisions. The CEO will also gain reputation through these corporate charitable activities. On the other hand, corporate charitable giving may provide top managers with important access to the elite business community, supporting personal causes and increasing social power and status (Friedman, 1970); therefore, in many situations, managers pursue CSR activities because they could enhance their professional and personal reputation. However, CEOs generally do not make donations based on obvious personal self-interest motives; in contrast, they usually combine altruistic and strategic motives when making donations (Borghesi et al., 2014), and the motives include reducing financial distress risk, improving corporate performance, etc. (Boubaker et al., 2020; Nollet et al., 2016). Moreover, the Chinese government encourages corporations to invest in philanthropy, the media generally has a positive attitude toward reports on corporate donations,² and stakeholders generally receive positive information. Therefore, top managers are likely to establish their reputations through corporate donations.

With the rapid development of both traditional and online self-media in recent years, an increasing number of corporate managers are known by stakeholders, and CSR has always been a hot spot of social concern. As a result, corporate managers' use of charity to gain personal reputation is very convenient. Although some managers use their reputation resources to create value for shareholders (Hogarth et al., 2018), at the same time, the reputation is also likely to help CEOs become entrenched in their positions and impede corporate governance.

2.2. CEOs' private reputations and forced turnover

The CEO's reputation is an intangible resource that is valuable to corporations. In the context of this study, the CEO's reputation is essentially the goodwill and trust of stakeholders, which can help companies build relationships with stakeholders (including customers, suppliers,

² We found relevant reports on government encouragement measures for corporate charitable donations from Chinese government websites and mainstream websites, such as http://www.gov.cn/xinwen/2017-02/24/content_5170738.htm/ http://jjsb.cet.com.cn/show_480538.html/ https://www.sohu.com/a/127760061_117822, meanwhile, we searched the internet in China and found no negative reports related to charitable donations by the listed firms.

competitors, bankers, and investors) (Friedman, 1970; Borghesi et al., 2014). The literature has documented that the reputation established among stakeholders can provide a competitive advantage and positively affect firm performance (Branco and Rodrigues, 2006; Brammer and Millington, 2005); therefore, reputation can bring a unique resource that is less likely to be substituted, and CEOs with reputation are likely to become entrenched in their positions. In addition, a CEO with a private reputation has a higher profile with stakeholders. Thus, firing those CEOs may lead a company to lose intangible reputational assets and incur potential costs. As a result, the private reputation of a CEO can increase in his(her) entrenchment, which have adverse effects on corporate governance. Therefore, we form our first hypothesis:

Hypothesis 1. A CEO who establishes a personal reputation through being actively involved in corporate donations has a lower probability of forced turnover.

2.3. Impact of media exposure and donations from peer companies or companies in the same province

Our previous discussion assumes that distorted forced turnover patterns are due to the CEO's reputation; therefore, the negative charitable donations–turnover relationship changes with the extent to which CEOs earned their reputation through charitable donations. The corporate donation environment is the most intuitive influencing factor. This article focuses on two of them: the media exposure of the firm and its CEO and the donations from other firms in the same industry/province.

The fundamental function of media is to disseminate information (Bushman et al., 2017). The establishment of top managers' personal reputations occurs through the dissemination of information (Borghesi et al., 2014), i.e., the wider the dissemination of information on a firm and its CEO, the more stakeholders receive philanthropic information. The media can help establish a wider range of goodwill and trust for top managers to stakeholders (Bear et al., 2010; Branco and Rodrigues, 2006). Therefore, given a particular amount of corporate donation, more media exposure results in a higher personal reputation for the CEO. Our second hypothesis is as follows.

Hypothesis 2. Higher media exposure of a firm and its CEO strengthens the negative correlation between charitable donations and that CEO's forced turnover.

In the real financial market, stakeholders receive information from more than one firm. Individuals (i.e., stakeholders) adjust relevant judgment criteria based on anchor information (Strack and Mussweiler, 1997; Furnham and Boo, 2011). Therefore, more donations of peer companies in the same industry or region both raise stakeholders' expectations of charitable donations and the threshold for establishing a reputation with stakeholders. As a result, given a particular amount of corporate donation, more donations from peer companies in the same industry or region result in a lower personal reputation of the CEO. Our third hypothesis is as follows.

Hypothesis 3. More donations of peer companies in the same industry or region weaken the negative correlation between charitable donations and a CEO's forced turnover.

2.4. CEO's private reputation and turnover-performance sensitivity

Many researchers (e.g., Warner et al., 1988; Cao et al., 2017) consider that the main reason for the CEO's forced resignation is the poor performance of the company, and there is a large amount of literature about boards tending to replace CEOs with poor performance (Weisbach, 1988; Kaplan and Minton, 2012; Jenter and Kanaan, 2015; Gao et al., 2017); namely, there is a negative correlation between firm performance and CEO turnover (Warner et al., 1988; Friedl and Resebo, 2010). Because top managers' private reputations can be a valuable resource, which is less likely to be substituted (Branco and Rodrigues, 2006), CEOs with

private reputations probably become entrenched in their positions. Therefore, we expect these CEOs to be less likely to be replaced, even when their performance is poor. In summary, the following hypothesis is proposed:

Hypothesis 4. CEOs' personal reputations established through corporate donations weaken the negative turnover-performance sensitivity relationship.

3. Data, variables, and the methodology

3.1. Sample

Our sample selection process starts with obtaining all the financial information of the firms listed on the Shanghai and Shenzhen Stock Exchanges from 2002 to 2018. The sample period is set from 2002 to eliminate the impacts from the change in accounting and audit standards for publicly listed firms in China that commenced in 2001. Then, we exclude financial firms because of their industrial uniqueness. We also exclude firms that were flagged as ST or *ST, which designates special treatment due to the irregularities in the financial statements. Firms in the education industry are also excluded from our sample because no company in this industry has donated in the sample period. We also exclude the firms that have incomplete information used in our analysis. We finally select a sample that comprises 32979 firm-year observations from 3504 listed firms for our empirical analysis.

The main source of our data is from the Chinese Stock and Market Accounting Research (CSMAR) database comprises four parts: (1) CEO turnover information for CEO name, turnover time, turnover reason; (2) data for CEOs: age, gender, experience, duality, and political connections; and (3) firm data for charitable donations, return on assets (ROA), stock return, firm size, leverage, board size, independent director ratio, and managerial ownership. The CSMAR provides charitable giving data only start from the year 2008. Therefore, we manually collect the data for corporate charitable giving from 2002 to 2007 from the firms' annual reports.³ The media exposure data are from the CSMAR and China economic news database, which include the number of articles each firm and its CEO have been reported.

3.2. Construction of variables

3.2.1. CEO's forced turnover

The original CEO turnover information we collect comprises multiple turnover records of a CEO during a single year. However, CEOs with such a short tenure are less likely to be involved in charitable giving. Dealing with the issue, we keep the first turnover CEO in one year. Therefore, the consolidated sample is obtained by consolidating multiple changes in one year into one observation per year.

As shown in Table 1 Panel A, we identify 6728 CEO turnovers within the sample period, which account for 20.4% of the total number of firm-year observations. The CSMAR database documents the reasons for the turnovers: (1) change of job, (2) retirement, (3) contract expiration, (4) change in controlling shareholders, (5) resignation, (6) dismissal, (7) health, (8) personal reasons, (9) corporate governance reform, (10) legal disputes, (11) completion of acting duties, and (12) no reason given. Panel A summarizes the distribution of turnovers across different stated reasons. Change of job is the most stated reason, which accounts for 34.77% of the turnover's reasons. The second most stated reason is contract expiration, which accounts for 21.88%. The third most stated reason is resignation, which accounts for 14.94%. Only 1.56% of the turnovers are because of dismissal.

To assess the effectiveness of the corporate control exercised by

³ We compare the consistency of the charitable donation data from two sources (Appendix B).

Table 1

Statistics on the reasons for CEO turnover. Panel A reports the consolidated sample, which is obtained by consolidating multiple changes in a year into one single observation, and the frequencies of the stated reasons for CEO turnover in China's listed firms between 2002 and 2018. In Panel B, the total number of turnovers is 6156, which is equal to 6149 (undifferentiated turnover) plus 7 (the age of the departing CEO was less than 55), and the number of forced turnover reported in this table (2399) does not exclude 523 cases in which the CEO's tenure was only one year. Our final sample contains 1876 cases of forced turnovers.

Panel A: Stated reasons for CEO turnover in China's listed enterprises.		
Reasons for turnover	Number of observations.	Frequency (%)
Change of job	2339	34.765
Retirement	172	2.560
Contract expiration	1472	21.878
Change in controlling shareholders	23	0.340
Resignation	1005	14.937
Dismissal	105	1.560
Health	146	2.170
Personal reasons	744	11.058
Corporate governance reform	225	3.340
Legal disputes	13	0.190
Completion of acting duties	183	2.720
No reason given	301	4.470
Total	6728	100
Panel B: Destinations of departing CEOs		
Destination	No. of obs	Percentage
Normal turnover	3757	61.099%
1. Important government position taken up	276	4.489%
2. Remaining as board chairman or vice chairman	1396	22.703%
3. Promoted to board chairman or vice chairman	1494	24.297%
4. CEO position taken up at another listed firm or parent firm	553	8.993%
5. Going abroad to study	38	0.618%
Forced turnover	2399	39.014%
1. Dismissal	105	1.708%
2. New position ranked lower than CEO position	914	14.864%
3. CEO position taken up at an unlisted, smaller firm	27	0.439%
4. Information unavailable	1346	21.890%
5. Retirement but the age of the departing CEO was less than 55	7	0.114%
Total	6156	100%

shareholders, we distinguish between forced and non-forced turnovers, because only the former reflects the disciplinary efforts of shareholders. Following the literature, we adopt the following procedures and assumptions to identify forced turnovers (e.g., Chang and Wong, 2009). First, we exclude forced turnovers that are due to one of the following reasons: (2) retirement, (4) change in controlling shareholders, (7) health (including death), (9) corporate governance reform, or (10) legal disputes. For the remaining 6149 turnovers, it is difficult to distinguish between forced and non-forced turnovers on the basis of publicly available information. Therefore, we trace the destinations of the departing managers to ascertain their nature. We exclude those turnovers in which the departing managers are subsequently inaugurated to a better position compared to their prior managerial position. We manually collect data for the destinations of the departing CEOs from (1) firms' annual reports, (2) Infobank's China Economic News Database, (3) Infobank's China's Listed Firms Database and (4) some mainstream websites.⁴

Of the 6149 turnovers in our consolidated sample, we exclude 3757 cases of voluntary departure. For instance, there are 276 turnovers that the CEOs left their firms for important government positions such as city governors and provincial leaders, 1396 cases in which the CEOs retained

their positions as board chairman or vice-chairman, 1494 turnovers in which the CEOs were promoted to the position of board chairman or vice-chairman, 553 cases in which the departing CEO took a new managerial position at another listed firm or at the listed firm's parent group, and 38 cases in which the CEOs were reported to go abroad for further education.

We treat the remaining 2392 turnovers as forced turnover: 105 cases of dismissal, 914 cases in which the departing CEOs up new positions that were lower than their prior positions, 27 cases in which they took managerial positions at unlisted and/or smaller-sized firms, and 1346 cases in which we are unable to trace the destinations of the departing CEOs. Consistent with previous literature (Chang and Wong, 2009; Cao et al., 2017), we categorize the turnovers with missing information about reasons as forced turnovers. It is highly unlikely that there is no information available when departing CEOs take a position better than their prior role. We add 7 cases as forced turnovers, of which the stated reason was retirement, conditioned on the age of the departing CEO being less than 55 years. Finally, our sample contains 2399 cases of forced turnovers. The reasons for CEO departures of our sample are summarized in Panel B.

For this sample of forced turnovers (The number of observations is 2399), we exclude 523 cases in which the CEO's tenure was only one year because CEOs with such a short tenure are unlikely to participate in charitable giving. Our final sample contains 1876 cases of forced turnovers, which represents 27.88% of all types of turnovers between 2002 and 2018. This proportion is lower than the rates reported by Chang and Wong (2009), namely, 30.98% (between 1995 and 2001), and higher than the rates reported by Cao et al. (2017), namely, 26.22% (between 2002 and 2010).

3.2.2. CEOs' private reputation

The reason that charitable giving can protect a CEO from a forced turnover is the private reputation that a CEO establishes through charitable giving. Therefore, charitable giving can essentially measure such private reputation of the CEO in this context. Given this context, we use the mean value of cumulative charitable donations during the tenure of the CEO, namely $Sm_donation_{i,t}$, as the key independent variable of the regression model. $Sm_donation_{i,t}$ is calculated as follows:

$$Sm_donation_{i,t} = \sum_j^t donation_{i,j} / t \quad (1)$$

where i represents CEO ID; t represents the t -th year of the CEO's tenure; j is an index of summation; $j = 1, 2, 3, \dots, t$; where the variable $donation_{i,t}$ denotes the amount of charitable giving of a firm in which CEO i takes office in year t and $Sm_donation_{i,t}$ represents the mean value of cumulative value of charitable giving in the t -th year of the CEO (CEO i)'s tenure. The value of $Sm_donation_{i,t}$ changes with the corporate charitable giving but does not always increase during a CEO's tenure. If the amount of subsequent donations decreases, the value of this variable decreases.

The mean value of cumulative charitable giving during a CEO's tenure is a more reasonable measure of a CEO's private reputations than the donations for each firm in each year. First, we posit that it is a long, accumulated process for CEOs to establish their private reputations through corporate philanthropy. Second, the donations for each firm in each year are an unsatisfactory measure of a CEO's private reputations in some cases, namely, for CEOs actively involved in charitable giving in the past except for the current year. Their private reputations will not return back to the original level at the beginning of their career because of their early donations.

For robustness reasons, we also construct the variable industry-adjusted donation ($idonation_{i,t}$), which is the donation of each firm less

⁴ Websites include "<http://www.sina.com.cn>" and "<http://www.baidu.com>".

the median value of the donation for all firms (except firm i) in the same industry in a given year⁵

$$idonation_{i,t} = donation_{i,t} - mid_ind_donation_t \quad (2)$$

where the variable $donation_{i,t}$ denotes the amount of charitable giving of a firm in which CEO i takes office, and $mid_ind_donation_t$ denotes the median value of charitable giving for all firms (except firm i) in the same industry in year t . We use variable $idonation_{i,t}$ to recalculate the mean value of cumulative charitable donations during the tenure of the CEO; the calculation formula is as follows⁶

$$Sm_idonation_{i,t} = \sum_j^t idonation_{i,j} / t \quad (3)$$

3.2.3. Firm media exposure

We consider a list of media exposure measures. First, we obtain Chinese listed firms' news data from the CSMAR. The news data from CSMAR provides information about the news ID, news publishing date, news title, and involved corporates. We use the number of relevant news items per firm per year to measure the media exposure of listed firms over time.

We also obtain Chinese listed firms' news data from China's economic news database. China's economic news database includes information on business economics news in China. The news is from various news reports published by nearly 1000 news organizations, including authoritative print media and internet websites in mainland China. The richness of the database ensures that our sample period is fully covered by the media exposure information. The total number of news articles is 6,656,264.⁷ In this database, we directly measure CEO media exposure by manually searching the news. Specifically, we use both the firm name (short name) and the CEO name as keywords for searching. When we find the name of the firm and the CEO in the same news, we count it as one piece of CEO media exposure. We use the total number of relevant news items per CEO per year to measure CEO media exposure over time.⁸ Additionally, we use the logarithm of all the media exposure variables.⁹

3.2.4. Donation from peers in the same industry or geographic community

We define the industry peers of a firm as the firms with the same industrial classification code as the focal firm. We use the 2012 version of the Chinese Securities and Regulatory Commission (CSRC) industry classification code to identify the industry of each firm. According to the CSRC, the manufacturing industry is identified by the first two industry classification codes, and the rest are identified by the first code. We use the mean value of the donations from industry peers as a moderating variable ($Peers_ind_{i,t}$). Also, we define the community peers of a firm as the firms headquartered in the same province as the focal firm. We use the mean value of donations from peers in the same province as another moderating variable ($Peers_pro_{i,t}$). The donations from the focal firm are

⁵ We introduced the median annual donation of the industry when constructing variable $Sm_idonation_{i,t}$, because, in some industries, a few giant companies donate a lot, so the median donation of the industry can better reflect the donation situation of the industry than the mean value.

⁶ All these variables ($Sm_donation_{i,t}$ and $Sm_idonation_{i,t}$) are log-transformed (+1) to correct for skewed values, and for the variable $sm_idonation_{i,t}$, we replace values less than 0 with 0 before we take the logarithm: 2086 real changes are made, and among these observations, 1677 range from 0 to -1 [-1,0) and 104 range from -1 to -2(-2,-1). Thus, the actual change in this variable is small.

⁷ The website of the China economic news database is <http://www.bjinfobank.com/indexShow.do?method=index>. More information on this database is on the following website: <http://www.bjinfobank.com/databaseShow/jsp/databaseHK.jsp>.

⁸ We distinguish the situation of the same CEO in different firms.

⁹ We compare the consistency of news data from two sources (Appendix B).

excluded when calculating the average of these two peers' charitable giving variables.¹⁰

3.2.5. Firm performance sensitivity

We refer to the previous literature (Cao et al., 2017) and use ΔROA as the proxy for firm performance sensitivity in our analysis. We also use the industry-adjusted ΔROA , namely $\Delta iROA$ for the robustness test, the above variables are calculated as follows:

$$\Delta ROA_{i,t} = ROA_{i,t} - ROA_{i,t-1} \quad (4)$$

$$iROA_{i,t} = ROA_{i,t} - mid_ind_ROA_t \quad (5)$$

$$\Delta iROA_{i,t} = iROA_{i,t} - iROA_{i,t-1} \quad (6)$$

Where the variable $ROA_{i,t}$ denotes the ROA of a firm i in year t and the variable $mid_ind_ROA_t$ denotes the median value of charitable giving for all firms (except firm i) in the same industry in year t .

3.2.6. Control variables

We introduce a set of control variables to eliminate the possible confounding effects. The control variables are divided into the characteristics of CEOs and firms. We use five variables to capture the CEO characteristics: $CEO_age_{i,t}$ is the age of a CEO; $CEO_tenure_{i,t}$ measures the number of years that a CEO has served in a listed firm; $CEO_duality_{i,t}$ is a dummy variable that equals 1 if the CEO also serves as the board chairperson in the same firm and 0 otherwise, and $CEO_gender_{i,t}$ is also a dummy variable that is equal to 1 if the CEO is woman and 0 otherwise; because evidence shows that the philanthropic giving decisions and amount of charitable giving are correlated to political connections (Li et al., 2008), we add CEOs' $political_connections_{i,t}$ measure as a control variable. The firm characteristics measures also have five predetermined measures: $Firm_size_{i,t}$ is the natural logarithm of the book value of total assets; $Lev_{i,t}$ is the capital structure of a listed firm, calculated as the ratio of the book value of total debt over the book value of total assets; $Managerial_ownership_{i,t}$ is the natural logarithm of the management shareholding; $Board_size_{i,t}$ is the natural logarithm of the total number of directors on the board, and $Board_independence_{i,t}$ is the proportion of independent directors on board.

3.3. Summary statistics

We present the summary statistics of variables involved in our empirical analysis in Table 2, including statistics of our main variables, firm characteristics measures, and CEO characteristics measures. All the definitions of the variable are summarized in Appendix A. In our sample, the average age of the CEOs is about 48 years old and 5.7% of them are female CEOs, the number of female CEOs is small. Besides, we also find that 22% of Chinese listed company CEOs also serves as the board chairpersons, which is higher than that of US firms (Cao et al., 2017).

By adjusting for the industry median, the mean value of $Sm_idonation_{i,t}$ is less than that of $Sm_donation_{i,t}$, which in line with our expectations. The mean value of news ($News_{i,t}$) is more than the mean value of CEO news ($News_CEO_{i,t}$), indicating that the number of news related to CEOs is far less than news on listed firms. The difference in mean values between $Peers_ind_{i,t}$ and $Peers_pro_{i,t}$ is small (5.98 and 6.16).

3.4. Regression models for determinants of turnovers

The following model is used in our empirical analysis:

¹⁰ Two Peers charitable giving variables are both log-transformed (+1) to correct for skewed values.

Table 2

Summary statistics of variables. The sample consists of Chinese listed firms from 2002 to 2018 that have the information required for our analyses. Summary statistics for firm characteristics, CEO characteristics and board composition are presented.

Variable	mean	p50	sd	min	max	N
<i>CEO_turnover</i>	0.057	0	0.232	0	1	32979
<i>Sm_donation</i>	1.052	0	1.828	0	7.411	32979
<i>Sm_idonation</i>	1.020	0	1.804	0	7.377	32979
<i>News</i>	3.494	3.664	1.082	0	7.716	32979
<i>News_CEO</i>	0.444	0	0.684	0	5.147	32979
<i>Peers_ind</i>	6.160	6.040	2.020	0	11.904	32979
<i>Peers_pro</i>	5.980	5.970	2.010	0	12.969	32979
<i>ROA</i>	0.030	0.030	0.070	-0.340	0.202	32979
<i>Firm_size</i>	21.842	21.659	1.380	19.081	26.582	32979
<i>Lev</i>	0.456	0.449	0.226	0.051	1.164	32979
<i>Board_size</i>	2.280	2.303	0.190	1.790	2.770	32979
<i>Board_independence</i>	0.360	0.333	0.060	0.181	0.570	32979
<i>Managerial_ownership</i>	10.753	11.744	6.991	0	20.106	32979
<i>Political_connections</i>	0.094	0	0.290	0	1	32979
<i>CEO_age</i>	48.245	48	6.750	25	64	32979
<i>CEO_gender</i>	0.057	0	0.230	0	1	32979
<i>CEO_tenure</i>	3.610	3	2.860	1	14	32979
<i>CEO_duality</i>	0.220	0	0.410	0	1	32979
<i>Slack_resources</i>	19.721	19.802	2.066	0	27.071	32923
<i>SOE</i>	0.418	0	0.493	0	1	32979
<i>Sales_expense</i>	17.473	17.793	3.097	0	24.914	32270
<i>Industry_donation</i>	9.767	9.645	2.480	0	15.173	32979

$$CEO_turnover_{i,t} = \beta_0 + \beta_1 Sm_donation_{i,t} + Controls + Year + Firm + CEO + \varepsilon \tag{7}$$

In equation (7), *CEO_turnover_{i,t}* is a dummy variable that equals 1 if forced turnover occurred in the firm-year, and 0 otherwise, *Sm_donation_{i,t}* is the main independent variable of interest, β_1 is expected to be negative, *Controls* is a set of control variables that we have discussed. We address endogeneity concerns by using three fixed effects specifications. We include firm fixed effects (*Firm*), which parse out firm-specific and time-invariant omitted factors that affect both corporate donations and CEO forced turnover, and year fixed effect, to capture the time-variant effects (*Year*). In addition, we also control for CEO fixed effects to exclude alternative explanations for the documented turnover patterns, such as

CEOs' superior ability, CEO's personal relationship with firms' controlling families, internally promoted CEOs, and other unobservable factors of CEOs that relate to charitable giving, ε is an error term. In computing the statistical significance of the estimation, we cluster standard errors by firm in all the regressions.

4. Empirical results

4.1. Baseline specification

In Table 3, we present the results of regression analysis on the determinants of forced CEO turnover. We use the logistic regression model in column 1, where year and industry fixed effects are included. The coefficient of *Sm_donation_{i,t}* is negative and statistically significant at the

Table 3

Regression analysis for the relationship between charitable giving and CEO turnover. This table examines the relationship between the mean value of cumulative charitable donations and CEO forced turnover. The observations in column 1 are slightly less than those in column 3 because industry fixed effects are included in the model and no CEO forced turnover occurred in the health industry during the observed year. The observations for that industry were omitted due to the operational logic of logistic regression. The observations in column 2 are far less than those in column 3 because firms without any CEO forced turnover are omitted due to the operational logic of the fixed-effects logit model. We report *t*-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit model	Fixed-effects logit model	LPM	Logit model	Fixed-effects logit model	LPM
<i>Sm_donation</i>	-0.052*** (-4.755)	-0.049*** (-3.133)	-0.015*** (-4.417)			
<i>Sm_idonation</i>				-0.052*** (-4.772)	-0.046*** (-2.958)	-0.014*** (-4.294)
<i>CEO_age</i>	-0.008*** (-2.872)	-0.003 (-0.833)	0.007 (0.933)	-0.008*** (-2.863)	-0.003 (-0.831)	0.007 (0.933)
<i>CEO_gender</i>	-0.187** (-2.249)	-0.125 (-1.159)		-0.187** (-2.247)	-0.125 (-1.159)	
<i>CEO_tenure</i>	-0.470*** (-22.270)	-0.436*** (-31.489)	-0.053*** (-7.986)	-0.471*** (-22.278)	-0.436*** (-31.540)	-0.053*** (-7.992)
<i>CEO_duality</i>	-0.453*** (-8.248)	-0.213*** (-3.097)		-0.453*** (-8.243)	-0.212*** (-3.089)	
<i>Political_connections</i>	-0.304*** (-4.018)	-0.251*** (-2.681)		-0.305*** (-4.035)	-0.251*** (-2.682)	
<i>ROA</i>	-0.001 (-0.508)	-0.000 (-0.177)	-0.000 (-1.255)	-0.001 (-0.514)	-0.000 (-0.177)	-0.000 (-1.254)
<i>Firm_size</i>	0.130*** (8.435)	0.042 (1.370)	0.009 (1.232)	0.131*** (8.410)	0.040 (1.321)	0.009 (1.208)
<i>Lev</i>	0.037** (2.396)	0.018* (1.844)	0.003 (1.020)	0.037** (2.398)	0.017* (1.835)	0.003 (1.017)
<i>Board_size</i>	-0.269*** (-2.590)	-0.331* (-1.808)	-0.039 (-1.232)	-0.269*** (-2.593)	-0.334* (-1.820)	-0.039 (-1.239)
<i>Board_independence</i>	1.027*** (2.875)	1.656*** (3.402)	0.171** (2.251)	1.029*** (2.878)	1.654*** (3.399)	0.171** (2.241)
<i>Managerial_ownership</i>	-0.029*** (-11.755)	0.009* (1.737)	0.002** (2.551)	-0.029*** (-11.731)	0.009* (1.746)	0.002** (2.553)
Constant	-2.187*** (-5.488)		-0.185 (-0.471)	-2.204*** (-5.492)		-0.182 (-0.461)
<i>Year fixed effects</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Industry fixed effects</i>	Yes	No	No	Yes	No	No
<i>Firm fixed effects</i>	No	Yes	Yes	No	Yes	Yes
<i>CEO fixed effects</i>	No	No	Yes	No	No	Yes
<i>Observations</i>	32957	22318	32979	32957	22318	32979
Adj R ² /Pseudo R ²	0.125	0.116	0.029	0.125	0.116	0.029

Table 4

The relationship between charitable giving and CEO turnover – restricted model. Panel A is the restricted model of Table 3 without all the control variables, and the changes in observations in different columns are consistent with Table 3. Panel B is also the restricted model of Table 3 and further removes the fixed effects. The observations in column 1 are consistent with column 3 after removing the fixed effects of the industry. We report *t*-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Restricted model (without all the control variables)						
<i>Sm_donation</i>	-0.113*** (-8.699)	-0.151*** (-9.702)	-0.016*** (-4.691)			
<i>Sm_idonation</i>				-0.110*** (-8.515)	-0.146*** (-9.359)	-0.015*** (-4.572)
Constant	-1.129*** (-10.083)		0.130*** (36.620)	-1.135*** (-10.136)		0.129*** (37.856)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	No	No	Yes	No	No
Firm fixed effects	No	Yes	Yes	No	Yes	Yes
CEO fixed effects	No	No	Yes	No	No	Yes
Observations	32957	22318	32979	32957	22318	32979
Adj R ² /Pseudo R ²	0.017	0.015	0.022	0.017	0.015	0.022
Panel B: Restricted model (without all the control variables and fixed effects)						
<i>Sm_donation</i>	-0.082*** (-7.026)	-0.148*** (-9.630)	-0.007*** (-7.860)			
<i>Sm_idonation</i>				-0.084*** (-7.077)	-0.143*** (-9.254)	-0.008*** (-7.956)
Constant	-1.974*** (-88.238)		0.122*** (51.683)	-1.975*** (-88.906)		0.122*** (52.028)
Year fixed effects	No	No	No	No	No	No
Industry fixed effects	No	No	No	No	No	No
Firm fixed effects	No	Yes	No	No	Yes	No
CEO fixed effects	No	No	No	No	No	No
Observations	32979	22318	32979	32979	22318	32979
Adj R ² /Pseudo R ²	0.003	0.007	0.002	0.003	0.006	0.002

1% level. In column 2, we control firm fixed effects in the model instead of the industry fixed effect, which rules out the interference from firms and the coefficient of $Sm_donation_{i,t}$ is also negative and statistically significant at the 1% level. We further use a linear probability model (LPM) to tackle potential sample bias issues caused by previous models. According to Bernard and Jensen (2004) and Alborno et al. (2012), the benefit of using an LPM is that CEO fixed effects can be further controlled to overcome the endogeneity from a CEO, which cannot be performed with a probit model or logit model. The well-known drawback of using an LPM is that there is no justification for why the relation is linear. However, the literature has shown extensively that the average marginal effects from the probit estimates are usually very close to the linear estimates (e.g., Wooldridge, 2002; Angrist and Pischke, 2009). The model also includes year and firm fixed effects. As column 3 shows, the coefficient of $Sm_donation_{i,t}$ is 0.015, and it negative and statistically significant at the 1% level, suggesting that the variable $Sm_donation_{i,t}$ increases by one unit, the probability that the CEO is forced turnover is reduced by 0.015. After considering a variety of endogenous factors, our results are still robust. Columns 4, 5, and 6 are also provided for the robustness test, where we use alternative CEO's reputation measure ($Sm_idonation_{i,t}$) as the dependent variable, and the findings are consistent.

In addition, most of the coefficients of the control variables have the expected signs and are significant: $CEO_duality_{i,t}$, $CEO_tenure_{i,t}$, and $political_connections_{i,t}$ are negative and statistically significant, and $Board_independence_{i,t}$ is positive and statistically significant. All of them are in line with our expectations and consistent with the literature.

We also show the regressions' results for a restricted model for our baseline specification (without all the control variables). Table 4 show the results of the restricted model with and without fixed effects of Table 3. All the key independent variables had the expected signs and significant effects which further confirms our main findings remain robust.

4.2. Endogeneity

4.2.1. PSM method

Our concern over endogeneity is whether the decision to donate is related to different aspects of firms. For example, firms that actively donate to charity tend to perform better than those that do not. Thus,

what is effective may be the corporate characteristics hidden behind charitable donations. Because these factors may change over time, which is insufficient to include only the firm fixed effects in the regression. We use PSM to further address the endogeneity issue.

We start by estimating each firm's propensity to engage in charitable contributions by using firm and industry characteristics in a consolidated sample, and we use the nearest neighbor matching approach, specifically, for each firm in the treatment sample (i.e., firms engaged in charitable contributions), we identify one control firm with the most similar propensity score that does not engage in charitable contributions; otherwise, the firm is dropped from the matching process. As a result, the likelihood of engaging in charitable contributions is the same in the treatment and control samples. We then obtain the propensity score for charitable donation by regressing the charitable giving choice dummy against a set of control variables, including slack resources, ROA, firm size, firm age, leverage, government ownership (SOE), sales expense, industry level of giving, industry and year fixed effects, by following literature (e.g., Wang et al., 2008). The regression specification is as follows:

$$\Pr(y_{i,t} = 1) = \Lambda(a_i + \beta_c control_{i,t} + Year + Industry) \quad (8)$$

$$\Pr(y_{i,t} = 1) = e^w / (e^w + 1) \quad (9)$$

The final matched sample satisfies the common support assumption that the matched samples are balanced. To validate our sample construction, we conduct univariate tests to compare the firm and CEO characteristics between the treatment sample and the control sample. As shown in Table 5, the firm characteristics are insignificantly different between the matched treated group and the untreated group. Although the CEO characteristics and management characteristics show some differences, we control for these variables in the regression. In our sample, 1863 listed firms had never made a charitable donation during the observation year, and 1641 listed firms had made charitable donations. Finally, the matched sample consists of 9602 firm-year observations.

The regression results using the matched sample confirm the negative impact of the CEO's private reputation on managerial turnover. In Table 6, the coefficient of $Sm_donation_{i,t}$ and $Sm_idonation_{i,t}$ are negative

Table 5

Comparison of related variables before and after PSM. This table examines the difference between variables before and after PSM. Statistical significance at the 1%, 5%, and 10% levels corresponds to *t* values of 2.58, 1.96, and 1.64, respectively, and % bias less than 5 satisfies the balance test assumption.

Variable	Unmatched Matched	Mean		%bias	%reduct bias	t-test		
		Treated	Control			t	p> t	
Panel A: Variables for PSM								
Slack resources	U	19.86	19.65	9.700		8.710	0	
	M	19.86	19.90	-2	79.50	-1.030	0.304	
ROA	U	0.035	0.032	4.700		3.450	0.001	
	M	0.035	0.036	-0.600	88	-0.360	0.716	
Firm_size	U	22.14	21.66	33.30		27.66	0	
	M	22.14	22.15	-1.200	96.40	-0.660	0.509	
Firm_age	U	12.02	14.41	-39.20		-30	0	
	M	12.02	11.98	0.700	98.30	0.400	0.687	
Lev	U	0.502	0.448	24.80		18.01	0	
	M	0.502	0.501	0.700	97	0.460	0.648	
SOE	U	0.563	0.387	35.60		27.20	0	
	M	0.563	0.558	1	97.10	0.600	0.549	
Sales_expense	U	17.69	17.32	11.50		9.090	0	
	M	17.69	17.69	-0.100	99.20	-0.050	0.959	
Industry_donation	U	685.4	544.2	15.40		12.70	0	
	M	685.4	664.7	2.300	85.30	1.220	0.223	
Panel B: Control variables of the model								
CEO_age	U	47.26	48.16	-13.20		-10.10	0	
	M	47.26	48.22	-14.10	-6.600	-8.540	0	
CEO_gender	U	0.047	0.059	-5		-3.670	0	
	M	0.047	0.053	-2.400	52.70	-1.440	0.149	
CEO_tenure	U	3.399	3.608	-7.400		-5.540	0	
	M	3.399	3.504	-3.700	50.10	-2.260	0.024	
CEO_duality	U	0.118	0.231	-30.10		-21.16	0	
	M	0.118	0.187	-18.20	39.50	-11.37	0	
Political_connections	U	0.059	0.092	-12.60		-9.020	0	
	M	0.059	0.086	-10.20	19.10	-6.200	0	
Board_size	U	2.338	2.262	39.90		30.94	0	
	M	2.338	2.296	21.70	45.60	12.61	0	
Board_independence	U	0.321	0.351	-29.50		-24.38	0	
	M	0.321	0.341	-19.50	34	-10.85	0	
Managerial_ownership	U	9.623	10.90	-19.10		-13.83	0	
	M	9.623	10.08	-6.900	64.20	-4.030	0	

Table 6

Regression analysis for the relationship between charitable giving and CEO turnover by PSM methodology. This table examines the relationship between *Sm_donation_{it}*, *Sm_idonation_{it}* and CEO forced turnover using the matched sample. The observations in both columns are slightly less than 9602, for the same reason that applies to Table 3 column 1. Because industry fixed effects are included in the model and no CEO forced turnover occurred in the health industry during the observed year, the observations for that industry were removed due to the operational logic of logistic regression. We report *t*-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
	Logit model	Logit model
Sm_donation	-0.041*** (-2.591)	
Sm_idonation		-0.036** (-2.312)
CEO_age	-0.012** (-2.202)	-0.012** (-2.189)
CEO_gender	-0.141 (-0.901)	-0.142 (-0.914)
CEO_tenure	-0.657*** (-13.258)	-0.657*** (-13.265)
CEO_duality	-0.397*** (-3.417)	-0.397*** (-3.417)
Political_connections	-0.285* (-1.864)	-0.288* (-1.872)
ROA	-0.907*** (-2.925)	-0.912*** (-2.923)
Firm_size	0.151*** (5.279)	0.148*** (5.172)
Lev	0.293*** (3.301)	0.293*** (3.291)
Board_size	0.033 (0.182)	0.031 (0.172)
Board_independence	1.675*** (2.871)	1.666*** (2.854)
Managerial_ownership	-0.021*** (-4.133)	-0.021*** (-4.152)
Constant	-3.315*** (-4.741)	-3.267*** (-4.663)
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	9577	9577
Pseudo R ²	0.145	0.145

and statistically significant at the 1% and 5% level. The results show that our findings are robust.¹¹

4.2.2. Instrumental variable analysis

We conduct an instrumental variable approach to further address the endogeneity concerns. We identify an exogenous source of variation in the demand for corporate donations. A classic insight of institutional theory is that the organizations chase their peers for cues to appropriate behavior (DiMaggio and Powell, 1983). Marquis and Tilcsik (2016) theorize that “the existence of institutional equivalents—other organizations at the same intersection of different fields, such as the same industry and the same community—provides a clear and well-defined reference category for firms and thus shapes which subset of peers the focal organization imitates most closely.” (pp. 1325). In all types of corporate behavior, corporate philanthropy is an activity that any firm might engage in. Marquis and Tilcsik (2016) find that institutional equivalents are the primary reference group for a firm when making decisions on philanthropic donation. Therefore, the philanthropic contributions of institutional equivalents have a subsequent influence on a firm's contributions. Next, we calculate the average corporate philanthropic contributions of institutional equivalents of the focal firm for each year. The lagged average corporate philanthropic contributions of institutional equivalents (*Donation_institutional_equivalents_{i,j-1}*) is our instrumental variable of the corporate donation of the focal firm, therefore, our instrumental variable fulfills the selection standard on relevance restriction. Unlike the impact on the supply of corporate donations (on the corporate side), impact on the demand (on the charity side) is

¹¹ We also use the probit model as a robustness test in Appendix B.

unlikely to be correlated with omitted factors at the donating firm that affects CEO forced turnover, so our instrumental variable fulfills the selection standard on the exclusion restriction.

According to the literature (e.g., Marquis and Tilcsik, 2016), two firms are institutional equivalents if they operate in the same industry and are headquartered in the same geographic community—that is if they are industry peers that are also local geographic peers. We define the industry peers of a firm as the firms with the same first digit of SIC code as the focal firm. One exception is that for manufacturing firms, we define industry peers according to the first two-digit CSRC code. Consistent with this method, we define the community peers of a firm as the listed firms headquartered in the same province as the focal firm. Finally, we use the mean value of cumulative charitable donations of institutional equivalents during the tenure of the CEO, as the instrumental variable for variable $Sm_donation_{i,t}$. $Sm_donation_iv_{i,t}$ is calculated as follows¹²

$$Sm_donation_iv_{i,t} = \sum_{j=1}^t Donation_institutional_equivalents_{i,j-1} / t \quad (10)$$

where i denotes CEO's ID, t represents the t -th year of the CEO's tenure, and $Donation_institutional_equivalents_{i,j-1}$ denotes the mean value of the institutional equivalents of the focal firm in which CEO i takes office in the year $j-1$. We use $Sm_Donation_iv_{i,t}$ as the instrumental variable of $Sm_donation_{i,t}$ and re-estimate the CEO forced turnover regression model. The results are shown in Table 7, the first-stage result shown in column 1 suggests a strong correlation between $Sm_donation_{i,t}$ and $Sm_donation_iv_{i,t}$. The F -statistic is 225.359 for the test of the null hypothesis that the coefficient estimate for the instrumental variable equals zero, exceeding the cutoff for the weak instrument test. More importantly, the second-stage result reported in column 2 further confirms the negative link between $Sm_donation_{i,t}$ and CEO forced turnover. The finding suggests that the probability of CEO forced turnover exogenously decreases as the corporate donations increase, moreover, the result from probit regression presented in column 3 shows consistency.

4.3. The moderating effect of media exposure

We examine how our results vary with the degree of media exposure of the firm and CEO. The relationship is examined by including interaction terms between the variable $Sm_donation_{i,t}$ and media exposure in the LPM model. In Table 8, the measure of media exposure in column 1 is defined as the number of relevant news items per firm per year, and the news data are from the CSMAR.¹³ The CEO media exposure in column 2 is the search result based on the different keywords (firm name and CEO name) using the China economic news database. The regression results confirm that media exposure strengthens the negative charitable donations–turnover relationship. We find that the coefficients of both the interaction terms are negative and statistically significant at the 5% level in columns 1 and 2. The above results are consistent with our expectations. Higher media exposure of a firm and its CEO strengthens the negative correlation between charitable donations and the CEO's forced turnover, which supports Hypothesis 2. Notably, the regression results also confirm the positive impact of media exposure on managerial turnover. We find that the coefficient of $News_{i,t}$ is positive and statistically significant at the 1% level. This finding indicates that, except for the moderating effect, media exposure increases the probability of CEO forced turnover, which is consistent with the literature that the media monitors listed firms and provides support for individual corporate

¹² We take the log-transformation (+1) of this variable to correct for skewed values.

¹³ We also use the variables of media exposure which are the search results based on keywords (full name or short name of listed firms) using the China economic news database to verify the robustness of our results, the details are presented in Appendix B.

Table 7

Instrumental variables regression. This table reports the results from the IV regression determining the effect of CEO's private reputation on CEO forced turnover. Column 1 summarizes the first-stage result based on the ordinary least squares regression model. We do not report the result of the first stage of the probit model with endogenous regressors for brevity. We report t -statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. The F -statistic in column 1 is for the test of the null hypothesis that the coefficient estimates for the IV are zero. The observations in Table 7 are less than 32979 due to the lag of the instrumental variables, and there are quite a few firms that do not have institutional equivalents, so the observations are smaller. The observations in column 3 are slightly less than those in column 2. Because industry fixed effects are included in the model and no CEO forced turnover occurred in the health industry during the observed year, the observations for that industry were removed due to the operational logic of probit regression. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
	2SLS	2SLS	Probit model
Dependent variable:	First-stage Sm_donation	Second-stage CEO forced turnover	Second-stage CEO forced turnover
Sm_donation_iv	0.172*** (15.98)		
Sm_donation		−0.018*** (−3.909)	−0.144*** (−3.976)
CEO_age	−0.002 (−1.264)	0.000* (1.792)	0.004* (1.849)
CEO_gender	−0.048 (−1.082)	−0.004 (−0.664)	−0.034 (−0.537)
CEO_tenure	0.092*** (23.943)	−0.003*** (−4.697)	−0.034*** (−4.796)
CEO_duality	−0.008 (−0.332)	−0.013*** (−3.456)	−0.133*** (−3.585)
Political_connections	0.136** (3.835)	−0.010** (−2.162)	−0.128** (−2.379)
ROA	−0.000 (−0.542)	−0.000** (−1.983)	−0.005 (−0.376)
Firm_size	0.583*** (55.562)	0.014*** (4.322)	0.110*** (4.281)
Lev	0.042*** (8.097)	0.004** (2.392)	0.020*** (3.403)
Board_size	0.549*** (8.217)	−0.013 (−1.305)	−0.134 (−1.495)
Board_independence	2.024*** (9.523)	0.102*** (3.113)	0.875*** (3.029)
Managerial_ownership	0.008*** (5.307)	−0.002*** (−6.173)	−0.013*** (−6.342)
Constant		−0.251*** (−3.417)	−3.998*** (−6.942)
Year fixed effects	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes
Observations	26180	26180	26162
Adj R ² /Pseudo R ²	0.337	0.005	/
F-statistic	255.359	/	/

governance (Burke et al., 2021).

4.4. The moderating effect of donations from peers in the same industry or province

We investigate how our results vary with the level of philanthropic contributions among peers within the same industry or province. We include interaction terms between $Sm_donation_{i,t}$ and donation from peers in our baseline model—LPM. As shown in Table 8, the coefficient of $Sm_donation_{i,t} \times Peers_ind_{i,t}$ is positive and statistically significant at the 1% level in column 3, indicating that corporate donation from peers in the same industry weakens the negative charitable donations–turnover relationship. In column 4, the coefficient of $Sm_donation_{i,t} \times Peers_pro_{i,t}$ is also positive and statistically significant at the 1% level, indicating that corporate donation from peers in the same geographic community

Table 8

Regression analysis for the moderating effect of media exposure and donation from peers. This table examines the moderating effect of media exposure and donation from peers. We report *t*-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	LPM	LPM	LPM	LPM
Sm_donation	-0.005 (-0.894)	-0.013*** (-4.410)	-0.029*** (-4.780)	-0.029*** (-4.590)
Sm_donation × News	-0.003** (-2.206)			
News	0.025*** (8.707)			
Sm_donation × News_CEO		-0.003** (-2.008)		
News_CEO		0.007 (1.417)		
Sm_donation × Peers_ind			0.002*** (2.767)	
Peers_ind			-0.003 (-1.573)	
Sm_donation × Peers_pro				0.002*** (2.623)
Peers_pro				-0.004* (-1.852)
CEO_age	0.001 (0.418)	0.001 (0.277)	0.007 (1.002)	0.007 (0.968)
CEO_tenure	-0.022*** (-10.425)	-0.022*** (-10.016)	-0.053*** (-7.968)	-0.053*** (-7.949)
ROA	-0.000 (-1.330)	-0.000 (-1.502)	-0.000 (-1.261)	-0.000 (-1.247)
Firm_size	0.006 (1.086)	0.011** (1.322)	0.009 (1.217)	0.008 (1.179)
Lev	0.003 (1.079)	0.003 (1.322)	0.003 (1.011)	0.003 (1.019)
Board_size	-0.029 (-1.025)	-0.034 (-1.300)	-0.039 (-1.217)	-0.040 (-1.258)
Board_independence	0.181** (2.517)	0.181*** (2.711)	0.172** (2.258)	0.171** (2.250)
Managerial_ownership	0.001 (1.235)	0.001 (1.201)	0.002** (2.574)	0.002** (2.572)
Constant	-0.049 (-0.339)	-0.059 (-0.388)	-0.188 (-0.477)	-0.165 (-0.420)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
CEO fixed effects	Yes	Yes	Yes	Yes
Observations	32979	32979	32979	32979
Adj R ²	0.118	0.115	0.030	0.030

weakens the negative charitable donations–turnover relationship. These results support [Hypothesis 3](#).

4.5. The moderating effect of the heterogeneity of the CEO characteristics

We then explore the heterogeneity of CEO characteristics by investigating the relationship between CEO personal reputation and forced turnover across different features at the CEO level, including CEO age, tenure, duality, and gender. As shown in [Table 9](#), the coefficients of all the interactive items are positive and statistically significant at the 1% level (except $Sm_donation_{i,t} \times CEO_duality_{i,t}$, marginally significant), indicating that all the variables assessed (CEO age, tenure, duality, and gender) weaken the negative charitable donations–turnover relationship. The results are in line with our expectations. Since stakeholders have higher expectations of social responsibility for CEOs who are older, longer-term, more powerful, and female,¹⁴ the threshold for establishing a personal reputation through charity is higher. As a result, given a

¹⁴ Female CEOs are more compassionate and invest more in charitable donations ([Borghesi et al., 2014](#)), so the expectations of stakeholders are higher.

Table 9

Regression analysis for the moderating effect of different CEO features. This table examines the moderating effect of different CEO features. We report *t*-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	LPM	LPM	LPM	LPM
Sm_donation	-0.116*** (-5.960)	-0.033*** (-7.963)	-0.017*** (-4.649)	-0.016*** (-4.618)
Sm_donation × CEO_age	0.002*** (5.274)			
Sm_donation × CEO_tenure		0.004*** (8.122)		
Sm_donation × CEO_duality			0.010* (1.942)	
Sm_donation × CEO_gender				0.022** (2.288)
CEO_age	0.006 (0.823)	0.009 (1.208)	0.007 (0.943)	0.007 (0.942)
CEO_tenure	-0.054*** (-7.908)	-0.060*** (-8.735)	-0.053*** (-7.947)	-0.053*** (-7.993)
ROA	-0.000 (-1.290)	-0.000 (-1.316)	-0.000 (-1.254)	-0.000 (-1.254)
Firm_size	0.009 (1.212)	0.006 (0.805)	0.008 (1.179)	0.009 (1.205)
Lev	0.003 (1.022)	0.002 (0.977)	0.003 (1.012)	0.003 (1.015)
Board_size	-0.039 (-1.221)	-0.037 (-1.174)	-0.037 (-1.184)	-0.040 (-1.272)
Board_independence	0.174** (2.287)	0.183** (2.396)	0.168** (2.211)	0.169** (2.221)
Managerial_ownership	0.002** (2.508)	0.002** (2.548)	0.002** (2.532)	0.002** (2.562)
Constant	-0.143 (-0.361)	-0.205 (-0.516)	-0.183 (-0.465)	-0.180 (-0.458)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
CEO fixed effects	Yes	Yes	Yes	Yes
Observations	32979	32979	32979	32979
Adj R ²	0.032	0.033	0.030	0.030

particular amount of corporate donation, CEOs who are older, longer-term, more powerful, and female will receive less personal reputation.

4.6. CEOs' private reputations and negative turnover-performance sensitivity relationship

In [Table 10](#), we investigate whether the CEO's reputation weakens the negative turnover-performance sensitivity relationship in the LPM model. First, we test the negative relationship between performance sensitivity and CEO forced turnover in columns 1 and 2. The coefficient of $\Delta ROA_{i,t}$ is not statistically significant,¹⁵ but the coefficient of $\Delta iROA_{i,t}$ is negative and statistically significant at the 5% level. The results suggest that when deciding whether to fire the CEO, the company refers to industry performance instead of ROA alone. This result confirms the negative impact of financial performance sensitivity on forced managerial turnover. Second, we test whether a CEO's personal reputation established through corporate donations can weaken the negative turnover–performance sensitivity relationship. In columns 3 and 4, we include interaction terms between $Sm_donation_{i,t}$ and $\Delta iROA_{i,t}$ in the model, and we use interaction terms between $Sm_idonation_{i,t}$ and $\Delta iROA_{i,t}$ as a robust test. We observe that the coefficients of interaction terms are both positive and statistically significant at the 1% level in columns 3 and 4, which supports [Hypothesis 4](#): CEOs' private reputations weaken the

¹⁵ This result is different from [Cao et al. \(2017\)](#). A possible reason for the discrepancy is that, following [Cao et al. \(2017\)](#), we control for the fixed effects of the firm and year, but we also control the fixed effects of the CEO. Another reason is that the samples are different in several dimensions.

Table 10
Regression analysis for the moderating effect of CEOs' private reputations on the negative turnover-performance sensitivity relationship. This table examines the moderating effect of the CEO's reputation on the negative turnover-performance sensitivity relationship. In column 1, observations are less than 32979 due to the calculation method for $\Delta ROA_{i,t}$. The observations of the remaining columns are less than column 1 because the missing ROA of companies in the same industry causes more missing $iROA$ observations. We report t -statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	LPM	LPM	LPM	LPM
Sm_donation	-0.017*** (-4.562)	-0.018*** (-4.721)	-0.018*** (-4.719)	
Sm_idonation				-0.017*** (-4.502)
ΔROA	-0.000 (-1.043)			
$\Delta iROA$		-0.000** (-2.441)	-0.000** (-2.482)	-0.000** (-2.473)
Sm_donation \times ΔROA			0.002*** (6.901)	
Sm_idonation \times $\Delta iROA$				0.002*** (7.065)
CEO_age	0.002 (0.267)	-0.003 (-0.312)	-0.003 (-0.310)	-0.003 (-0.311)
CEO_tenure	-0.057*** (-7.732)	-0.047*** (-6.461)	-0.047*** (-6.458)	-0.047*** (-6.460)
Firm_size	0.005 (0.672)	0.007 (0.902)	0.008 (0.931)	0.007 (0.901)
Lev	0.002 (0.743)	0.001 (0.571)	0.001 (0.570)	0.001 (0.568)
Board_size	-0.048 (-1.402)	-0.050 (-1.453)	-0.050 (-1.454)	-0.050 (-1.47)
Board_independence	0.146* (1.782)	0.153* (1.811)	0.154* (1.810)	0.152* (1.808)
Managerial_ownership	0.002*** (2.592)	0.002* (1.697)	0.002* (1.711)	0.002* (1.708)
Constant	0.168 (0.348)	0.342 (0.712)	0.334 (0.696)	0.339 (0.705)
Year fixed effects	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
CEO fixed effects	Yes	Yes	Yes	Yes
Observations	30266	27359	27359	27359
Adj R ²	0.029	0.014	0.014	0.013

negative turnover-performance sensitivity relationship.

4.7. Transmission channels of CEOs' private reputations

In this section, we verify the mechanism through which donations reduce the probability of CEO forced turnover. Forced CEO turnover sends a negative signal about a company, which has a negative correlation with company performance (Friedl and Resebo, 2010), and CEOs with more private reputations have a higher profile to stakeholders. Such reputation can be a valuable resource for a corporation. Therefore, firing these CEOs may lead to more costs. To verify that firing high private reputations CEOs leads to more costs, we present the mean post-turnover changes in stock return/ROA and control-group adjusted stock return/ROA and in Table 11.

¹⁶ First, we delete firms that had never had a CEO forced turnover during the observation year because we only need to compare whether there is a difference in the change of performance between a company that fires a CEO with private reputations and without private reputations; thus, we do not need firms that never had a CEO forced turnover during the observation year. Second, we delete firms that have multiple CEO changes in the observed year (CEO changes only include forced turnover), because multiple CEO changes can interfere with the performance of a firm at different stages, making it difficult to detect the impact of a single forced turnover.

Table 11
Changes in post-turnover performance. This table presents the changes and adjusted changes in the post-turnover performance of China's listed firms. The significance of mean changes is tested using the mean-comparison tests. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	The difference of firm performance between different periods		
	(1)	(2)	(3)
	T-(T+1)	T-(T+2)	T-(T+3)
Mean changes in <i>stock_return</i>	0.089	0.209**	0.169**
<i>t</i> -value	1.017	2.176	2.132
Mean changes in <i>ad_stock_return</i>	0.017	0.153*	0.078*
<i>t</i> -value	0.294	1.913	1.714
Mean changes in <i>ROA</i>	0.015*	0.026**	0.020**
<i>t</i> -value	1.710	2.281	3.010
Mean changes in <i>ad_ROA</i>	0.010	0.029**	0.022**
<i>t</i> -value	1.225	2.190	2.184

Before exploring the mean post-turnover change in firms' performance, we conduct the necessary screening of the sample.¹⁶ Next, for any given firm that fires a CEO with private reputations (which means a CEO involved in corporate donations), we will find a matched firm, and this firm must fulfill the following conditions: (1) the matched firm is in the same industry as the given firm; (2) the matched firm fires a CEO without private reputations during the observation year¹⁷; and (3) in the year of the CEO forced turnover, the difference in the stock return/ROA between the given firm and matched firm is less than 20%. Control-group adjusted stock return/ROA in year T is measured by the stock return/ROA of the given firm in year T less the stock return/ROA of the matched firm in year T . The specific calculation formula is as follows:

$$adjusted_stock_return_{i,T} = stock_return_{i,T} - stock_return_{j,T} \tag{11}$$

$$adjusted_ROA_{i,T} = ROA_{i,T} - ROA_{j,T} \tag{12}$$

where i represents the given firm (CEO with private reputations), j represents the matched firm (CEO without private reputations), T denotes the year in which the forced turnover occurs, and the year T of the given firm may not the same year as the year T of the matched firm.¹⁸ This measure excludes the performance change due to the factor of a CEO's forced turnover; therefore, we can isolate the role of a CEO's personal reputation established through corporate donations.

As shown in Table 11, column 1 reports the post-turnover mean changes in performance, which is given by the difference in stock returns/ROA and control-group adjusted stock return/ROA between the year $T + 1$ and year T . The change is not significantly in the stock return, which indicates that one year after the CEO with a personal reputation was involved in a forced turnover, stock returns did not change significantly. The changes are not significant in the control-group adjusted stock return, which indicates that one year after the CEO with a personal reputation was involved in a forced turnover, the decline in stock returns is not significantly greater than the decline in the matched firm. The change is marginal significantly positive at the 10% level in ROA and, the change is not significantly in control-group adjusted ROA, indicating that one year after the CEO with a personal reputation was involved in a forced turnover, there is a marginal decrease in ROA, but the decline in ROA is not significantly greater than the decline in the matched firm. In summary, for any given firm that fires a CEO with private reputations, the

¹⁷ CEO without private reputations means the CEO has never made charitable donations during his tenure.

¹⁸ The CEO of the given firm may be fired in 2003, and the CEO of match firm may be fired in 2005, but we define that they both occur in the year T ; although firms have different time trends in the year T , the timing of CEOs forced turnover is subject to random distribution; thus, the time trend will not affect our results.

decline in performance is not significantly greater than the decline in matched firms in the short term.

Column 2 reports the post-turnover mean changes in performance between the year $T + 2$ and year T . The change is significantly positive at the 5% level in *stock_return* and ROA, which indicates that two years after the CEO with personal reputation was involved in a forced turnover, there is a significant decrease in performance. Furthermore, the change is significantly positive at the 5% level in control-group adjusted ROA and marginal significantly positive at the 10% level in control-group adjusted *stock_return*, indicating that two years after the CEO with personal reputation was involved in a forced turnover, the decline in firm performance is greater than the decline in the matched firm, which confirms our expectations.

The results of column 3 are similar to the results shown in column 2. There is a significant decrease in performance after a CEO with a personal reputation was involved in a forced turnover, and for any given firm that fires a CEO with private reputations, the decline in firm performance is significantly greater than the decline in the matched firm, indicating that the extra costs for firing CEOs with private reputations become apparent in the long run.¹⁹

5. Conclusions and implications

With the rapid development of both traditional and online self-media in recent years, corporate managers' use of charity to gain personal reputation has become very convenient. Such reputation has the potential to negatively impact corporate governance. We provide insight into this issue by investigating whether a CEO's reputation established through corporate donations has adverse effects on their forced turnover. Using a sample of 3504 Chinese listed companies from 2002 to 2018, we find that the CEO's reputation built through corporate donations reduces the probability of their forced turnover. This effect is stronger when a firm/CEO has more media exposure but weaker when a firm's peer companies donate more. We also find that different features at the CEO level can also affect the relationship between charitable donations and CEO turnover. Further analysis suggests that the CEO's reputation also

alleviates the negative turnover-performance sensitivity relationship. By exploring the transmission channels, we find that the reputations of top managers can increase their entrenchment by improving the dismissal cost. The firing costs are the main concern that prevents firms from firing a CEO with a high reputation.

The findings of this paper also have practical implications. First, firms should weaken the role of CEOs in charitable giving, because of the adverse effect of CEOs' private reputations on managerial monitoring mechanisms. Strategically, firms can consider establishing independent foundations, in part, to insulate CEOs from foundation allocation decisions. Second, the adverse role of reputation in business management is highlighted, which is usually ignored. The shareholders should be aware of the charitable behavior of CEOs which may harm their wealth. Policy makers should regulate the related activities so that to protect the stakeholders and keep the development of economy stable from a long-term perspective. Our paper provides insights into these negative effects of personal reputation also motivates further research to explore the role of reputation in the different aspects of corporate economic life.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

The authors would like to show sincerely thanks to the editor, Susanta Mallick, and the anonymous referees who provided constructive and valuable comments to this article. This paper also benefited a lot from those who provided insightful suggestions on the conference of "The Opportunities and Challenges of China's Economy and Financial Markets" at Jiangxi University of Finance and Economics. This paper is funded by Chinese National Funding of Social Science (Grant No.: 20CJY046) and Scientific Research Project Funding of East China University of Political Science and Law.

Appendix A

Table A0
Variable definitions and data source

Variable	Definition	Data Source
CEO_turnover	A dummy variable equal to 1 if the CEO forced turnover occurs in the current year and 0 otherwise.	CSMAR
Sm_donation	Average cumulative charitable giving during the CEO's tenure, $sm_donation_{i,t} = \sum_{j=1}^t donation_{ij} / t$ i represents CEO ID, t represents the t -th year of the CEO's tenure, j is index of summation, $j = 1, 2, 3, \dots, t$, We log-transformed (+1) the variable to correct for skewed values.	CSMAR and manual collection
Sm_idonation	Industry-adjusted average cumulative charitable giving during the CEO's tenure, $idonation_{i,t} = donation_{i,t} - mid_ind_donation_{i,t}$ $sm_idonation_{i,t} = \sum_{j=1}^t idonation_{ij} / t$ i represents CEO ID, t represents the t -th year of the CEO's tenure, j is index of summation, $j = 1, 2, 3, \dots, t$, We log-transformed (+1) the variable to correct for skewed values.	CSMAR and manual collection
Donation_institutional_equivalents	Average corporate philanthropic contributions of institutional equivalents (Two firms are institutional equivalents if they operate in the same industry and are headquartered in the same geographic community)	CSMAR and manual collection
Sm_donation_iv	Instrumental variable for variable $Sm_donation_{i,t}$, $Sm_donation_iv_{i,t} = \sum_{j=1}^t Donation_institutional_equivalents_{ij-1} / t$	CSMAR and manual collection

(continued on next column)

¹⁹ To mitigate the issues that our sub-sample might not be a randomly selected sample of the population, we apply Heckman's two-step selection model for robustness test, the results are presented in Appendix B.

Table A0 (continued)

Variable	Definition	Data Source
	where i denotes CEO's ID, t represents the t -th year of the CEO's tenure, and $donation_institutional_equivalents_{i,j-1}$ denotes the mean value of the institutional equivalents of the focal firm in which CEO i takes office in the year $j-1$.	
News	Log of total number of the number of relevant news items per company per year	CSMAR
News_CEO	Log of total number of the number of relevant news items per CEO per year	China economic news database
News_title_f	Log of total number of the number of relevant news items per company (Retrieve the full name of the firm in the database with the title option)	China economic news database
News_title_s	Log of total number of the number of relevant news items per company (Retrieve the short name of the firm in the database with the title option)	China economic news database
News_text_f	Log of total number of the number of relevant news items per company (Retrieve the full name of the firm in the database with the full text option)	China economic news database
News_text_s	Log of total number of the number of relevant news items per company (Retrieve the short name of the firm in the database with the full text option)	China economic news database
Peers_ind	Log of mean value of the donation from industry peers	CSMAR
Peers_pro	Log of mean value of donation from peers in same province	CSMAR
ROA	Net income/total assets	CSMAR
ΔROA	Annual changes in ROA: $\Delta ROA_{it} = ROA_{it} - ROA_{it-1}$	CSMAR
$\Delta iROA$	Annual changes in iROA: $\Delta iROA_{it} = iROA_{it} - iROA_{it-1}$	CSMAR
Stock_return	Basic earnings per share	CSMAR
Firm_size	Log of firm total assets	CSMAR
Lev	Total debt/total assets	CSMAR
Board_size	Log of total number of directors on the board	CSMAR
Board_independence	The proportion of independent directors on the board	CSMAR
Managerial_ownership	The number of shares held by directors, supervisors and senior executives	CSMAR
CEO_age	The age of the incumbent CEOs	CSMAR
CEO_gender	The gender of the incumbent CEOs	CSMAR
CEO_tenure	The number of years that CEOs have been in their managerial positions	CSMAR
CEO_duality	A dummy variable equal to 1 if the CEO is also the chairman of the board and 0 otherwise	CSMAR
political_connections	A dummy variable equal to 1 for politically connected CEOs and 0 otherwise.	CSMAR
Slack_resources	Log of corporate cash in hand	CSMAR
Firm_age	The age of the firm (From the time the firm was established)	CSMAR
SOE	A dummy variable equal to 1 if the firm is a state-owned enterprise and 0 otherwise	CSMAR
Sales_expense	Log of expenses incurred by the company in the sales process	CSMAR
Industry_donation	Log of the average annual charitable giving for each industry	CSMAR
R&D_spend	Log of the R&D investment of listed companies	CSMAR

Appendix B

1. Comparison of charitable giving data from different sources

Fig. 1 shows the total amount of annual charitable donations of listed firms from 2002 to 2018. As shown in Fig. 1, the change in total annual donations from Chinese listed firms over time has been relatively flat, especially in 2007 and 2008; the intersection of data from different sources shows the consistency of the time trend. However, the charitable donations of listed firms have shown substantial growth and high volatility after 2016; the main reason for this phenomenon is the implementation of the "Charity Law of the People's Republic of China," which promotes the standardized development of Chinese philanthropy, especially to give firms participating in charitable donations a greater degree of preferential taxation. Additionally, charitable donations require a lot of cash; thus, the fluctuation of charitable donations may be from the adjustment of the capital structure of the listed firms. Related websites also recorded the rapid growth of corporate charitable donations in 2016, such as:

<http://www.gongyishibao.com/html/gongyizixun/12744.html>

https://www.sohu.com/a/202692006_497826.

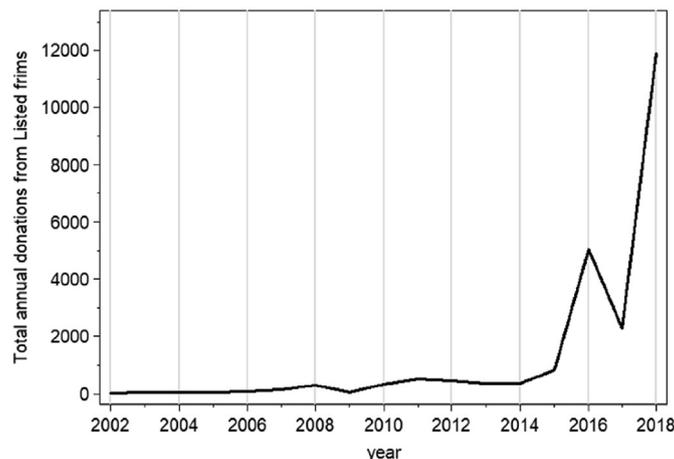


Fig. A1. Total annual donations from Chinese listed firms (2002–2018)..

Table A1 reports corporate donation distribution and summary statistics by year, including mean, standard deviation, minimum, maximum, the number of listed firms participating in charitable donation. From the mean of charitable donations, the amount of charitable donations of listed firms has maintained an upward trend except for the year 2009, because the Wenchuan earthquake occurred in China and the financial crisis also began to affect countries worldwide in 2008, however, under the influence of various factors, many listed firms have to participate in charitable donations in this year; thus, only a small number of firms are capable of making charitable donations in 2009.

From the perspective of the number of firms participating in charitable giving, the number of listed firms participating in charitable giving before 2007 is not significantly lower than that after 2007. After further analysis, we find that 50% of corporate donations were less than 13.6 ten thousand yuan in all the firms that involved in charitable giving in 2006 and 75% of corporate donations were less than 52.16 ten thousand yuan, that is, many firms make small charitable donations, and according to the literature, this phenomenon probably results from the government's apportion (Zhang, 2013). With the improvement of related institutions in subsequent years, this phenomenon decreased. In general, the charitable donation data from the two sources are comparable and consistent.

Table A1

Corporate donation distribution and summary statistics by year. The unit of charitable donation is ten thousand yuan, and the data are raw and have not been processed.

Year	Mean	SD	Min	Max	Number of listed firms participating in charitable donation	Number of listed firms	Proportion of listed firms participating in charitable donation
2000	9.020	53.428	0	1513	153	1062	0.144
2001	15.457	187.605	0	6200	200	1136	0.176
2002	19.164	198.175	0	6600	222	1203	0.185
2003	35.447	390.286	0	13200	347	1259	0.276
2004	43.621	754.910	0	27500	319	1348	0.237
2005	40.742	571.532	0	20300	347	1346	0.258
2006	50.213	370.776	0	9500	408	1429	0.286
2007	102.750	1335.957	0	41100	177	1533	0.115
2008	194.784	1438.834	0	29700	350	1587	0.220
2009	31.670	552.773	0	17400	62	1749	0.035
2010	159.692	1549.054	0	48640	260	2103	0.124
2011	217.902	3341.051	0	125000	284	2331	0.122
2012	178.126	2690.491	0	94837	287	2466	0.116
2013	140.304	2543.349	0	119000	303	2509	0.120
2014	138.349	1885.954	0	74106	289	2626	0.110
2015	286.459	11060.107	0	585000	241	2815	0.086
2016	1627.872	43051.246	0	2.000e+06	268	3107	0.086
2017	658.340	23098.594	0	1.260e+06	563	3487	0.161
2018	3326.786	86278.630	0	3.860e+06	482	3571	0.135

2. Robustness tests for Table 6

We also use the probit model as a robustness test for Table 6 and the result in Table A2 shows that our conclusion is robust.

Table A2

Robustness test for the relationship between charitable giving and CEO turnover by the PSM methodology. This table examines the relationship between corporate donations and CEO forced turnover using the matched sample. The observations in Table A2 are slightly less than 9602, for the same reason as in Table 8. We report t-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
	Proit model	Probit model
Sm_donation	-0.0224** (-2.55)	
Sm_idonation		-0.0200** (-2.30)
CEO_age	-0.0056* (-1.96)	-0.0056* (-1.94)
CEO_gender	-0.0874 (-1.05)	-0.0881 (-1.06)
CEO_tenure	-0.2600*** (-12.82)	-0.2601*** (-12.83)
CEO_duality	-0.2093*** (-3.48)	-0.2092*** (-3.48)
Political_connections	-0.1426* (-1.72)	-0.1437* (-1.73)
ROA	-0.5230*** (-3.23)	-0.5253*** (-3.24)
Firm_size	0.0792*** (4.86)	0.0778*** (4.78)
Lev	0.1709*** (3.36)	0.1706*** (3.35)
Board_size	0.0223 (0.21)	0.0209 (0.20)
Board_independence	1.0118*** (3.06)	1.0080*** (3.05)
Managerial_ownership	-0.0128*** (-4.46)	-0.0129*** (-4.48)
Constant	-2.0880*** (-5.29)	-2.0636*** (-5.22)
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	9577	9577
Pseudo R ²	0.1511	0.1509

3. Summarized comparison of media exposure between the two databases

In this part, we compare the consistency of news data from two sources (CSMAR and China's economic news database). In China's economic news database, we retrieve news on each listed firm by the name (full name or short name of the listed firm as the keyword) and choose a retrieval option (retrieval options including full text or title). Then, we obtain four search results among the news retrieval results in this database: full name/short name with the full-text search (corresponding variable: *News_text_s*, *News_text_f*) and full name/short name with the title search (corresponding variable: *News_title_s*, *News_title_f*). We use the total number of relevant news items per firm to measure the overall media exposure of Chinese listed firms.

Because the variables *News_text_s*, *News_text_f*, *News_title_s*, and *News_title_f* measure the overall media exposure of Chinese listed firms, they do not change over time; therefore, we added up the variable *News* (From CSMAR) per firm, named *All_news*.²⁰ In Table A3, columns 2 to 6 are summary statistics and columns 7 to 11 are correlation coefficients. Compared with other variables, the mean value of the variable *All_news* (6.283) is closest to the mean value of the variable *News_text_s* (6.057); the correlation coefficient of the two variables is 0.655, which is highly correlated. Although the mean values of variable *All_news* (6.283) and variable *News_title_s* (4.333) are different, the correlation coefficient is higher, which is 0.695. The variable *All_news* is more consistent with the variables *News_text_s* and *News_title_s*. These variables are for retrieving the short name of the firm. In general, we find that the variables of media exposure obtained from different sources have differences but are also comparable and consistent. The number of observations of *News_text_f* and *News_text_s* is slightly less than 32979 because of the missing value. The mean values of *News_text_s* and *News_title_s* are greater than the mean values of *News_text_f* and *News_title_f*, indicating that when the media mentions listed firms in the news, they often use the short name of the firm, which is consistent with our experience.

Table A3

Summarized comparison of media exposure between the two databases

Variable	N	mean	sd.	min	max	<i>All_news</i>	<i>News_text_s</i>	<i>News_text_f</i>	<i>News_title_s</i>	<i>News_title_f</i>
<i>All_news</i>	32979	6.283	0.939	0	8.964	1				
<i>News_text_s</i>	32973	6.057	1.243	0	12.170	0.655	1			
<i>News_text_f</i>	32973	3.433	1.148	0	7.885	0.588	0.727	1		
<i>News_title_s</i>	32973	4.333	1.226	0	10.25	0.695	0.927	0.718	1	
<i>News_title_f</i>	32973	0.926	0.902	0	4.605	0.514	0.556	0.760	0.553	1

4. Robustness tests for Table 8

In this part, we obtain four variables *News_title_s*, *News_title_f*, *News_text_s* and *News_text_f* as moderators; the regression results are shown in Table A4, the regression results confirm that the media scrutiny strengthen the negative charitable donations-turnover relationship, which further supports Hypothesis 2.

Table A4

Regression analysis for the moderating effect of media exposure. This table examines the moderating effect of media exposure on negative turnover-charitable giving. There are slightly fewer observations due to the missing variables *ln_news_title_f* and *ln_news_title_s*. We report *t*-statistics based on heteroscedasticity-robust standard errors adjusted for firm clusters in parentheses below the corresponding regression coefficients. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	LPM	LPM	LPM	LPM
<i>Sm_donation</i>	0.0032 (0.32)	-0.0077* (-1.84)	0.0056 (0.44)	0.0050 (0.58)
<i>Sm_donation</i> × <i>News_title_s</i>	-0.0037* (-1.80)			
<i>News_title_s</i>	0.0442*** (4.96)			
<i>Sm_donation</i> × <i>News_title_f</i>		-0.0057** (-2.09)		
<i>News_title_f</i>		0.0454*** (3.82)		
<i>Sm_donation</i> × <i>News_text_s</i>			-0.0031 (-1.64)	
<i>News_text_s</i>			0.0459*** (4.50)	
<i>Sm_donation</i> × <i>News_text_f</i>				-0.0049** (-2.32)
<i>News_text_f</i>				0.0314*** (2.88)
<i>CEO_age</i>	-0.0008 (-0.47)	-0.0008 (-0.52)	0.0000 (0.02)	-0.0001 (-0.07)
<i>CEO_tenure</i>	-0.0252*** (-12.04)	-0.0244*** (-11.81)	-0.0235*** (-10.48)	-0.0228*** (-10.32)
<i>ROA</i>	-0.0000 (-1.44)	-0.0000 (-1.47)	-0.0000 (-1.47)	-0.0000 (-1.35)
<i>Firm_size</i>	0.0034 (0.63)	0.0078 (1.46)	0.0038 (0.68)	0.0071 (1.25)
<i>Lev</i>	0.0030 (1.15)	0.0033 (1.26)	0.0028 (1.18)	0.0030 (1.14)
<i>Board_size</i>	-0.0506** (-2.08)	-0.0530** (-2.18)	-0.0364 (-1.39)	-0.0376 (-1.34)
<i>Board_independence</i>	0.1200** (2.01)	0.1172** (1.97)	0.1730*** (2.60)	0.1750** (2.43)
<i>Managerial_ownership</i>	0.0014** (1.99)	0.0013* (1.79)	0.0014* (1.92)	0.0012* (1.66)
Constant	0.0488 (0.37)	0.1118 (0.83)	-0.1390 (-0.90)	-0.0306 (-0.21)
<i>Year fixed effects</i>	Yes	Yes	Yes	Yes
<i>Firm fixed effects</i>	Yes	Yes	Yes	Yes
<i>CEO fixed effects</i>	Yes	Yes	Yes	Yes
Observations	32973	32973	32973	32973
Adj R ²	0.1165	0.1160	0.1166	0.1160

²⁰ We take the log-transformation (+1) of this variable to correct for skewed values.

5. Robustness tests for Table 11

To mitigate the issues that our subsample might not be a randomly selected sample of the population, we apply Heckman's two-step selection model for the robustness test. Before running the regression, we still conducted the necessary screening of the sample. First, we keep the first turnover CEO if a company has had multiple CEO changes in observation years. Second, we keep the observations of the turnover CEOs whose tenure is no less than 4 years because corporate performance may be affected by the turnover of the last CEO if the tenure is too short. We keep the observations within 4 years after CEO turnover (no other CEO changes during this period) to mitigate issues that firms may disguise financial treatment in the short term after CEO forced turnover. After these treatments, 25990 observations remained in our sample.

Next, we use Heckman's two-step selection model in which the first step is forced/non-forced turnover²¹ and the second step is the post-turnover change in firms' performance. In the first stage, the selection equation estimates the likelihood of CEO forced turnover by applying a probit model to the above sample of firms. The following model is used in our selection equation:

$$\text{Probability}(CEO_turnover_{i,t}) = f(\text{Sm_donation}_{i,t}, \text{Controls}) \quad (\text{A1})$$

$CEO_turnover_{i,t}$ is a dummy variable that equals 1 if forced turnover occurred in the firm-year and 0 otherwise; $Sm_donation_{i,t}$ is the mean value of cumulative charitable donations during the tenure of the CEO. $Controls$ are a set of control variables that are the same as equation (5), including $CEO_age_{i,t}$, $CEO_tenure_{i,t}$, $CEO_duality_{i,t}$, $CEO_gender_{i,t}$, $political_connections_{i,t}$, $Firm_size_{i,t}$, $Lev_{i,t}$, $Managerial_ownership_{i,t}$, $Board_size_{i,t}$, and $Board_independence_{i,t}$. We also include industry and year fixed effects.

Table A5
Probit Estimates from a Heckman First-Stage Sample Selection Model. This table estimates the Heckman first-stage sample selection model, and t statistics are in parentheses. Standard errors are clustered at the industry level. *p < 0.10, **p < 0.05, ***p < 0.01.

First stage	Probit model
Dependent variable	CEO forced turnover
Sm_donation	-0.0266*** (-3.18)
CEO_age	-0.0029 (-1.43)
CEO_gender	-0.1157** (-2.01)
CEO_tenure	-0.1961*** (-27.46)
CEO_duality	-0.3214*** (-8.50)
Political_connections	-0.1597*** (-3.00)
ROA	-0.0002 (-0.25)
Firm_size	0.0549*** (4.48)
Lev	0.0167** (2.44)
Board_size	-0.1483* (-1.84)
Board_independence	0.6213** (2.45)
Managerial_ownership	-0.0048** (-2.36)
Constant	-1.2413*** (-4.04)
Year fixed effects	Yes
Industry fixed effects	Yes
Observations	25990
Pseudo R ²	0.1277

Table A5 shows the results of the first-stage Heckman selection model. The results from the first-stage analysis were consistent with expectations, and the results were used in formulating the inverse mills ratio for the multiple regression estimates presented in the second-stage financial performance model. According to the results, $CEO_tenure_{i,t}$, $CEO_duality_{i,t}$, $CEO_gender_{i,t}$, and $Board_independence_{i,t}$ have a significant impact on the CEO's forced turnover but do not directly affect the company's performance. We select these variables as exclusion restrictions variables that are not included in the regression model at the second stage.

In the second equation, the sample is limited to the sample of firms whose CEOs were forced to turn over.

$$ROA_{i,t} = \beta_0 + \beta_1 \text{after_CEO_turnover}_{i,t} + \beta_2 \text{CEO_reputation}_{i,t} + \beta_3 \text{CEO_reputation}_{i,t} \times \text{after_CEO_turnover}_{i,t} + \text{Controls} + \text{Year} + \text{Industry} + \varepsilon \quad (\text{A2})$$

In equation (A2), $ROA_{i,t}$ is the dependent variable, and we also use $Stock_Return_{i,t}$ as a robustness test. $\text{after_CEO_turnover}_{i,t}$ is a dummy variable that equals 1 if the year in which the CEO is forced to turn over has already happened (including turnover year) and 0 otherwise; $CEO_reputation_{i,t}$ is also a dummy variable that equals 1 if a firm has made charitable donations during the term of the forced turnover CEO and 0 otherwise. $Controls$ are a set of control variables that include $CEO_duality_{i,t}$, $political_connections_{i,t}$, $Firm_size_{i,t}$, $Lev_{i,t}$, $Sales_expense_{i,t}$, $R\&D_spend_{i,t}$, $Managerial_ownership_{i,t}$, $Board_size_{i,t}$ and imr (inverse mills ratio). We also include industry and year fixed effects, and ε is an error term. The second stage of a Heckman model is an OLS regression.

Table A6 presents the results from the Heckman model's second-stage estimation using the inverse mills ratio from the probit model in Table A5 to account for selection bias. Columns 1 and 2 correspond to the models using the two different measures of financial performance— $ROA_{i,t}$ and $Stock_Return_{i,t}$ —as dependent variables.

To verify that firing CEOs with private reputations leads to more costs, the interaction term $\text{after_CEO_turnover}_{i,t} \times \text{CEO_reputation}_{i,t}$ is the variable that

²¹ Firms that have not changed their CEO during the observation years are included in the non-forced turnover group. We tried to remove these firms in the first stage, and the results of the second stage were consistent.

²² Variables $Sales_expense$ and $R\&D_spend$ are log-transformed (+1) to correct for skewed values.

we are most concerned about. As shown in Table A6, the coefficient of this interaction term showed negative and marginally significant effects on both measures of financial performance (the t value is -1.88 , which is close to the 5% significance level in column 1), which partially supports our expectations, indicating that firing CEOs with reputation will lead to more costs. The possible reason for the marginal significance is that firms may disguise financial treatment in the short term after CEO forced turnover. Most of the control variables had the expected signs and significant effects in Table A6.

Table A6

Estimates for Heckman Second-Stage Financial Performance Models. This table provides estimates for Heckman second-stage financial performance models, and t statistics are in parentheses. Standard errors are clustered at the industry level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The observations in column 2 are less than those in column 2 due to the missing variables of stock return.

Second stage	(1)	(2)
	OLS model	
Dependent variable	ROA	Stock Return
After_CEO_turnover	-0.0166 (-1.64)	-0.1531*** (-4.87)
CEO_reputation	0.0113 (1.60)	-0.0368 (-1.52)
After_CEO_turnover × CEO_reputation	-0.0237* (-1.88)	-0.0671* (-1.69)
CEO_duality	-0.0147** (-2.10)	0.0260 (1.23)
political_connections	0.0008 (0.09)	0.0398 (1.60)
Firm_size	0.0025 (0.99)	0.0592*** (7.30)
Lev	-0.0528*** (-27.19)	-0.0064 (-1.16)
Sales_expense	0.0037*** (3.65)	0.0122*** (3.89)
R&D_spend	0.0006 (1.20)	0.0070*** (4.91)
Board_size	0.0274* (1.84)	0.1250** (2.43)
Managerial_ownership	0.0015*** (3.54)	0.0042*** (2.97)
imr	-0.0101* (-1.69)	-0.0994*** (-5.62)
Constant	-0.1186** (-2.09)	-1.2824*** (-6.90)
Year fixed effects	Yes	Yes
Industry fixed effects	Yes	Yes
Observations	4578	3157
Adj R ²	0.1715	0.1322

References

- Albornoz, F., Pardo, H.F.C., Corcos, G., Ornelas, E., 2012. Sequential exporting. *J. Int. Econ.* 88 (1), 17–31.
- Angrist, J.D., Pischke, J.M.H.E., 2009. *An Empiricist's Companion*. Princeton University Press, Princeton, NJ.
- Barro, J.R., Barro, R.J., 1990. Pay, performance, and turnover of bank CEOs. *Journal of Labor Economics* 8 (4), 448–481.
- Bear, S., Rahman, N., Post, C., 2010. The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *J. Bus. Ethics* 97 (2), 207–221.
- Bernard, A.B., Jensen, J.B., 2004. Why some firms export. *Rev. Econ. Stat.* 86 (2), 561–569.
- Borghesi, R., Houston, J.F., Naranjo, A., 2014. Corporate socially responsible investments: CEO altruism, reputation, and shareholder interests. *J. Corp. Finance* 26, 164–181.
- Boubaker, S., Cellier, A., Manita, R., Saeed, A., 2020. Does corporate social responsibility reduce financial distress risk? *Econ. Modell.* 91, 835–851.
- Brammer, S., Millington, A., 2005. Corporate reputation and philanthropy: an empirical analysis. *J. Bus. Ethics* 61 (1), 29–44.
- Branco, M.C., Rodrigues, L.L., 2006. Corporate social responsibility and resource-based perspectives. *J. Bus. Ethics* 69 (2), 111–132.
- Burke, J.J., 2021. Do boards take environmental, social, and governance issues seriously? Evidence from media coverage and CEO dismissals. *J. Bus. Ethics* (forthcoming).
- Bushman, R.M., Williams, C.D., Wittenberg-Moerman, R., 2017. The informational role of the media in private lending. *J. Account. Res.* 55 (1), 115–152.
- Cai, Y., Xu, J., Yang, J., 2020. Paying by donating: corporate donations affiliated with independent directors. *Rev. Financ. Stud.* 34 (2), 618–660.
- Cao, X., Pan, X., Qian, M., Tian, G.G., 2017. Political capital and CEO entrenchment: evidence from CEO forced turnover in Chinese non-SOEs. *J. Corp. Finance* 42, 1–14.
- Chang, E.C., Wong, S.M.L., 2009. Governance with multiple objectives: evidence from top executive forced turnover in China. *J. Corp. Finance* 15 (2), 230–244.
- Chen, X., Cheng, Q., Dai, Z., 2013. Family ownership and CEO turnovers. *Contemp. Account. Res.* 30 (3), 1166–1190.
- DiMaggio, P.J., Powell, W.W., 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *Am. Socio. Rev.* 48 (2), 147–160.
- Flickinger, M., Wrage, M., Tuschke, A., Bresser, R., 2016. How CEO protect themselves against dismissal: a social status perspective. *Strat. Manag. J.* 37 (6), 1107–1117.
- Friedl, S., Resebo, P., 2010. Effects of CEO turnover on company performance. *Headlight International* 1–10.
- Friedman, M., 1970. The social responsibility of business is to increase its profits. *N. Y. Times Mag.* (September 13), 122–126.
- Furnham, A., Boo, H.C., 2011. A literature review of the anchoring effect. *J. Soc. Econ.* 40 (1), 35–42.
- Gao, H., Harford, J., Li, K., 2017. CEO turnover–performance sensitivity in private firms. *J. Financ. Quant. Anal.* 52 (2), 583–611.
- Graham, J.R., Harvey, C.R., Puri, M., 2013. Managerial attitudes and corporate actions. *J. Financ. Econ.* 109 (1), 103–121.
- Hogarth, K., Hutchinson, M., Scaife, W., 2018. Corporate philanthropy, reputation risk management and shareholder value: a study of Australian corporate giving. *J. Bus. Ethics* 151 (2), 375–390.
- Huson, M.R., Parrino, R., Starks, L.T., 2001. Internal monitoring mechanisms and CEO turnover: a long-term perspective. *J. Finance* 56 (6), 2265–2297.
- Jenter, D., Kanaan, F., 2015. CEO turnover and relative performance evaluation. *J. Finance* 70 (5), 2155–2184.
- Kaplan, S.N., Minton, B.A., 2012. How has CEO turnover changed? *Int. Rev. Finance* 12 (1), 57–87.
- Li, H., Meng, L., Wang, Q., Zhou, L.A., 2008. Political connections, financing and firm performance: evidence from Chinese private firms. *J. Dev. Econ.* 87 (2), 283–299.
- Marquis, C., Tilcsik, A., 2016. Institutional equivalence: how industry and community peers influence corporate philanthropy. *Organ. Sci.* 27 (5), 1325–1341.
- Masulis, R.W., Reza, S.W., 2015. Agency problems of corporate philanthropy. *Rev. Financ. Stud.* 28 (2), 592–636.
- Milbourn, T.T., 2003. CEO reputation and stock-based compensation. *J. Financ. Econ.* 68 (2), 233–262.
- Nollet, J., Filis, G., Mitrokovas, E., 2016. Corporate social responsibility and financial performance: a non-linear and disaggregated approach. *Econ. Modell.* 52, 400–407.
- Strack, F., Mussweiler, T., 1997. Explaining the enigmatic anchoring effect: mechanisms of selective accessibility. *J. Pers. Soc. Psychol.* 73 (3), 437.
- Tang, Y., Qian, C., Chen, G., Shen, R., 2015. How CEO hubris affects corporate social (ir) responsibility. *Strategic Management Journal* 36 (9), 1338–1357.
- Tran, Q.T., Xuan, M.N., Nguyen, T.H., 2017. CEO duality, state shareholder and CEO turnover: evidence from Vietnamese stock market. *Bus. Econ. Horiz.* 12 (3), 113–120.
- Walker, K., 2010. A systematic review of the corporate reputation literature: definition, measurement, and theory. *Corp. Reput. Rev.* 12 (4), 357–387.
- Wang, H.L., Choi, J.P., Li, J.T., 2008. Too little or too much? Untangling the relationship between corporate philanthropy and firm financial performance. *Organ. Sci.* 19 (1), 143–159.
- Warner, J.B., Watts, R.L., Wruck, K.H., 1988. Stock prices and top management changes. *J. Financ. Econ.* 20, 461–492.
- Weisbach, M.S., 1988. Outside directors and CEO turnover. *J. Financ. Econ.* 20 (1), 431–460.
- Werbel, J.D., Carter, S.M., 2002. The CEO's influence on corporate foundation giving. *J. Bus. Ethics* 40 (1), 47–60.
- Wooldridge, J.M., 2002. *Econometric Analysis of Cross Section and Panel Data*. MIT Press, Cambridge.
- Zhang, J., 2013. Competition-commitment-obedience: the motivation of Chinese enterprises' charitable donations. *Manag. World* (9), 118–129, 2013.
- Zhu, J., Jiang, D., Shen, Y., Shen, Y., 2021. Does regional air quality affect executive turnover at listed companies in China? *Econ. Modell.* 97, 428–436.