

**What Drives Corporate Charitable Contributions, Market Forces,
Government Influences, or Political Goodwill? Evidence from China**

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Abstract

This study examines the determinants and consequences of corporate charitable contributions in China. Using a large sample of listed firms from 2001 to 2006, we find that firms with political connections are more likely to make charitable contributions. Firms owned by local governments are more likely to make charitable contributions than firms owned by the central government. Furthermore, we find that resource constraints and industry competition cannot explain corporate philanthropy in China. We document a positive association between charitable contributions and future firm performance but find no evidence that charitable contributions affect future sales growth. Further analysis indicates that firms making charitable contributions received more bank loans and government subsidies. The overall results are consistent with listed companies in China using charitable contributions to build the political goodwill with the government.

1. Introduction

Corporate philanthropy is an important dimension of corporate social responsibility (Carroll 1999). There has been substantial growth in corporate philanthropy in the last two decades and the level of charitable giving is increasing even when companies are facing financial difficulties (Lev et al 2010). FASB defines corporate philanthropic contributions as “an unconditional transfer of cash or other assets to an entity or a settlement or cancellation of its liabilities in a voluntary nonreciprocal transfer by another entity acting other than as an owner” (FASB 1993). This definition highlights the fact that corporate charitable contributions represent a transfer of valuable resources to unrelated entities with no expectations for future economic returns. An interesting question that naturally arises is how to evaluate managers’ discretionary decisions about charitable giving. To address that question, we need to understand what motivates profit-maximizing firms to transfer shareholder wealth to non-shareholders voluntarily and why.

The existing literature in corporate social responsibility (CRS) suggests that corporate charitable contributions may be motivated by a variety of reasons (Sanchez 2000). The altruistic theory of corporate philanthropy implies that firms make charitable contributions because the senior managers believe doing so is right and just for society (Sharfman 1994). This theory suggests that social criteria, not economic reasoning should be the basis for corporate philanthropy. The profit maximizing theory argues that corporate philanthropy will lead to economic returns because

improvements in living standards and community conditions will eventually increase market demands for firms' products, hence the argument "doing good to do well" (Hart 1997). The political and institutional power theory of corporate philanthropy posits that firms engage in charitable contribution to build political goodwill with key stakeholder groups in order to protect relationship-based intangible assets (Godfrey 2005). The political goodwill will improve firms' accessibility to critical resources controlled by the key stakeholder groups. Both the profit maximizing theory and the political and institutional power theory predict a positive association between charitable contributions and firm performance.

The empirical research on the relationship between charitable contributions and firm performance has been largely inconclusive (Godfrey 2005, Wang et al 2008). The inability of existing empirical research to reach a conclusion indicates that either the present theories have not been able to explain the motivation for corporate charitable contributions or the existing empirical research did not find experimental settings powerful enough to test the theory.

This study extends the existing literature by exploring a unique institutional setting where firms seek to build political goodwill with the government who also controls critical resources. Corporate charitable giving contributes to the government objectives in improving social welfare and social stability. We argue that charitable contributions in this setting create political goodwill with the politicians and such goodwill may play a favorable role in the allocation of government controlled resources in the future. We further argue that political connected firms are in a better

position to understand the government priorities in social issues and the importance of political goodwill in the allocation of the critical resources under the government control. Thus, political connected firms have lower marginal costs to build political goodwill with charitable contributions and they are more likely to make charitable contributions. We test the above conjectures in the economic context of China. China represents a unique empirical setting for this study because the government still exercises significant influences on corporations through state ownership and CEOs' political connections. In addition, the government in China also controls valuable corporate resources such as bank loans, industry grants, and direct subsidies. Specifically, we address the following three related research questions: (1) Do government influences and CEO's political connections affect corporate charitable contributions? (2) Do corporate charitable contributions affect future firm performance? (3) What are the mechanisms by which firms can benefit from their charitable contributions?

Our analysis indicates that state ownership and CEOs' political connection have a positive impact on firms' charitable contributions during our sample period, a result opposite to the finding in Zhang et al. (2009). In addition, resource constraints and industry competition cannot explain firms' philanthropic activities in China. We also find that companies controlled by the local governments are more likely to make charitable contributions than companies controlled by the central government. We document evidence that firm performance improves in the year following charitable contributions but we do not find empirical support that charitable contributions lead to

future sales growth. Finally, we find that charitable contributions are positively associated with bank loans and government subsidies. The combined results are consistent with companies using charitable contributions to build political goodwill with the government.

The paper is organized as follows. Section 2 provides a literature review and hypothesis developments. Section 3 discusses the empirical design, model specifications, and sample selection. We analyze the determinants of charitable contributions by our sample firms in Section 4. Section 5 discusses the impact of charitable contributions on future firm performance and accessibility to government controlled resources. Section 6 concludes.

2. Literature review and hypothesis developments

The debate among academics about whether rational, profit maximizing managers should engage in corporate philanthropy has been going on for a long time (Godfrey 2005, Godfrey et al. 2010, Wang et al. 2008).¹ The question at the core of this debate is whether corporate philanthropy enhances future firm performance to justify the distribution of corporate profits to non-shareholders (Lev et al. 2010). There have been considerable theoretical arguments for corporate charitable giving. Some scholars suggest that corporate philanthropy helps build a favorable company image in the eye of stakeholders, including customers. The improved company image

¹ There is a vast literature on corporate charitable contributions so we will not attempt to provide a comprehensive review of the existing studies. Rather, we will review recent studies that are closely related to this study. Further references for a comprehensive review of this literature include Margolis and Walsh (2001), Griffin and Mahon (1997), Roman, Hayibor and Agle (1999), and Marquis, Glynn, and Davis (2007).

may lead to future sales growth (Lev et al. 2010). Others argue that philanthropy can enhance firms' legitimacy which can assist firms in securing critical resources such as employee loyalty and community and regulator support (Wang et al. 2008). These arguments imply that corporate charitable giving is economically justified because corporate philanthropy may improve future firm performance, hence the argument "doing good to do well."

The empirical research on the relationship between corporate charitable contributions and firm performance has been inconclusive (Godfrey 2005, Rowley and Berman 2000, and Ullman 1985). Margolis and Walsh (2001) review the empirical research since 1970 and find a mixed picture about the relationship between corporate performance and CSR. Griffin and Mahon (1997) find that the inconclusive findings in the existing literature can be attributed to inconsistent empirical proxies and constructs in previous studies. Others suggest that relationship between corporate charitable contributions and firm performance can be rather complex and new theory and refined research designs are needed to capture the complexity underlying firms' decisions for charitable giving (Godfrey 2005, Wang et al. 2008).

Godfrey (2005) proposes a new theory to explain corporate philanthropy using the argument that "good deeds earn chits." Specifically, he argues that corporate philanthropy can generate positive moral capital among stakeholders who control critical resources. This moral capital can provide shareholders with "insurance-like" protection for firms' relationship-based intangible assets. The strengthened relationship with the stakeholders will improve firms' accessibility to the critical

resources under the stakeholders' control in the future and will contribute to shareholder wealth and future firm performance.

The essence in Godfrey's theory is the existence of the relationship-based intangible assets between the firm and its stakeholders. We argue that the economic environment in China provides a unique empirical setting to test Godfrey's theory. The economic reality in China is that the government holds ownership in many listed companies. The government also controls critical resources such as bank loans, tax rebates, land grants, and direct subsidies (Brandt and Li 2003). In this setting, companies can benefit from political connections in a variety of ways. Examples of such benefits include preferential treatment in bank loans and lighter taxation, preferential treatment in competition for government contracts, relaxed regulations or oversight, as well as preferential treatment in the government's economic planning (Faccio 2006). We argue that firms with political connections in China have the relationship-based intangible assets because they are in a better position to receive the above benefits than other firms (Shleifer and Vishny 1994).

The political connections in China can come in different forms. For instance, companies that are owned by the state are naturally politically connected because the government can exercise significant influences on them, including assessing firm performance and appointing CEOs and other senior officers. In addition, CEOs and entrepreneurs in non-government owned enterprises may also have political connections if they hold or held in the past important positions in the government at some stage during their career.

We further argue that charitable contributions are an important mechanism for companies in China to build political goodwill with the politicians.² Since corporate philanthropy deals with urgent social issues that are likely to be of the government's concern, charitable contributions will increase firms' visibility in the eyes of the public and politicians. Firms with political connections have stronger incentives to make charitable contributions in order to strengthen the existing political connections. The increased visibility as a result of the existing political connections implies that failure to make charitable contributions towards urgent social issues may create "negative moral capital" with the government and politician and will lead to unfavorable shareholder consequences in the future (Godfrey 2005).

The discussions above lead us to form the following two hypotheses in this study, stated in the alternate form:

Hypothesis 1: Politically connected firms are more likely to make corporate charitable contributions than non-politically connected firms.

Hypothesis 2: Charitable contributions are positively associated with the allocation of government controlled resources.

Other recent studies that relate to this study include Lev et al. (2010) who examine the impact of corporate charitable contributions on future revenue growth. They find that charitable contributions are positively associated with future revenue and the effect is more pronounced for firms that are more sensitive to consumer perception. The study does not explain why such a strategy cannot be imitated by all

² It should be noted that unlike in the West, political contributions to the ruling party is not possible or permitted in China. In addition, companies can rarely receive tax deductions from charitable contributions under the existing tax regulations in China (Su and He 2009).

firms. Wang et al. (2008) argue and find that the relationship between corporate philanthropic giving and financial performance is best captured by an inverse U-shape due to the diminishing marginal rate of returns from philanthropic giving. Zhang et al. (2009) examine whether charitable giving relates to ownership type following the Sichuan Earthquake in early May, 2008 in China and they find that state owned firms are less likely to donate than the non-state owned firms.³ In a follow-up study using the same data set, Zhang et al. (2010) find that the likelihood and the extent of charitable contributions are positively associated with firms' advertising intensity.⁴ Su and He (2010) examine the impact of charitable contributions on firm financial performance for non-listed private firms in China. They find that charitable contributions are positively associated with ROA and ROE in 2005.

This study differs from the existing studies and extends the literature in the following ways. First, we examine three different factors that affect corporate philanthropy; industry competition, government influences, and political goodwill. The findings in the study will shed light on why firms make charitable contributions when there is no impact on future sales growth. Second, we identify an empirical setting to test the Godfrey theory (2005) by empirically characterizing the relationship-based assets and analyzing their impact on corporate charitable contributions. Third, we examine both the dominants and consequences of charitable

³ This finding is inconsistent with the results in this study. We suspect that the finding in Zhang et al. (2009) is mainly driven by a sudden spike in charitable contributions by private firms following the earth quake in 2008 because they use one-year data only. Our suspicion is confirmed by the public donations from 2001 to 2009 released by the Ministry of Civil Affairs. See <http://cws.mca.gov.cn/article/tjbg/201006/20100600081422.shtml>.

⁴ Zhang et al. (2009, 2010) do not examine the impact of political connections on charitable contributions nor do they investigate the potential benefits of charitable contributions.

contributions. We broaden the scope of the analysis by including the government influences in corporate philanthropy.

3. Research design

3.1 Empirical specifications

We estimate the following regression to examine the impact of state ownership and CEOs' political connections with controls for other factors that may affect corporate charitable contributions.

$$\begin{aligned} CONT_t = & \beta_0 + \beta_1 Private_t + \beta_2 PC_t + \beta_3 INDHHI_t + \beta_4 DISPERSION_t + \beta_5 INDIR_t + \beta_6 BSIZE_t \\ & + \beta_7 PB_t + \beta_8 LEV_t + \beta_9 GPM_t + \beta_{10} ENVIND_{t0} + \beta_{11} SALEEXP_t + \beta_{12} SIZE_t + \beta_{13} EMPLOYEE_t^{(1)} \\ & + \beta_{14} ROA_t + \beta_{15} AGE_t + \beta_{16} CASH_t + \beta_{17} GROWTH_t + \sum \delta_k Ind_k + \sum \gamma_j Year_j + \varepsilon \end{aligned}$$

where the dependent variable *CONT* is a firm's philanthropic contributions in a year. We measure *CONT* in two different ways: (1) As a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise, and (2) in the logarithm of the amount donated in a year.

Private, is a dummy variable with a value of 0 for companies whose controlling shareholder is the state and 1 otherwise. *PC* is a proxy for CEO's political connections of the sample firms. This proxy captures how closely a firm is connected to the government. Following Fan et al. (2007), we measure CEO's political connections by examining whether the CEO serves currently or formerly as an officer in the central or local governments. Specifically, *PC* is an indicator variable equal to 1 if the CEO serves or served as an important officer in the administration of the central or local governments, is or was a representative in the People's Congress in the central or local

governments, or a member in the Chinese People's Political Consultative Conference in the central or local governments, and 0 otherwise. *INDHHI* is Herfindahl–Hirschman Index (HHI) which is a measure for industry competition (Zhang et al., 2010). HHI is a well-accepted measurement of industry competition in economics and it is defined as $INDHHI = \sum_{i=1}^n (X_i / X)^2$, where X_i is the sales revenue of firm i in the industry, X is the total sales revenue for all firms in the industry, and n is the number of firms. A high *INDHHI* indicates low competition and vice versa. We use the industry classifications provided by the CSRC.

To be consistent with the existing literature, we include a number of control variables in Model (1). Prior research shows that agency costs play a role in explaining corporate charitable giving (Brown et al., 2006; Coffey and Wang, 1998). While senior managers can use philanthropy to gain goodwill with the stakeholders who control critical resources, it is also possible that top managers use valuable corporate resources in the name of philanthropy to enhance personal reputations within social circles or to further political or career agenda at the expense of the firm (Wang et al 2008). We include the following variables to control for variations in corporate governance and agency costs: *DISPERSION* is a proxy of the concentration of significant shareholder ownership and is measured as the sum of the squares of the percentage shareholdings of the top 10 largest shareholders; *INDIR*, the ratio of independent directors to total number of directors; and *BSIZE*, the number of directors in the board. Following Amato and Amato (2007), Crampton and Patten (2008) and Zhang et al. (2009, 2010), we also control for firm size, measured as the logarithm of

the market value. To control for firm performance and financial resources available, we include return on asset (*ROA*) and gross profit margin (*GPM*), leverage (*LEV*), measured as the debt ratio (Brown et al., 2006; Navarro, 1988), and cash (*CASH*), the firm's cash holding to total assets. Existing studies suggest that firms may consider philanthropic activity as part of the firms' marketing strategies to customer loyalty (Lev et al 2010, Zhang et al. 2010). Firms may also use charitable contribution to build moral capital as insurance against stakeholder sanctions in the event of future adverse impacts on the natural and social environment (Godfrey 2005). We include sales expense (*SALEEXP*) to proxy for firms' motivation to use charitable contributions for customer relationship. We also add *ENVIND* as a proxy for the propensity of intensive public scrutiny in the event of adverse environmental impacts (Brown et al. 2006). In addition, we control for a firm's listing age (*AGE*), total number of employee, and market-to-book ratio (*PB*). Brammer and Millington (2005) find that the firm growth negatively affects firm's philanthropic contributions. Thus, we control for *GROWTH*, measured as the annual sales growth in Model (1). Finally, following Amota and Amota (2007), Brammer and Millington (2005), Brown et al. (2006), we also control for the industry fixed effect and year fixed effect as the Chinese economy grew rapidly during our sample period.

We employ Model (2) to investigate whether charitable contributions in the current period lead to better firm performance in the subsequent period.

$$FP_{t+1} = \beta_0 + \beta_1 CONT_t + \beta_2 LagFP_t + \beta_3 GROWTH_t + \beta_4 SIZE_t + \beta_5 LEV_t + \beta_6 AGE_t + \beta_7 PB_t + \beta_8 Private_t + \beta_9 PC_t + \beta_{10} SALEEXP_t + \beta_{11} BETA_t + \sum \delta_k Ind_k + \sum \gamma_j Year_j + \varepsilon \quad (2)$$

We measure a firm's future performance in two different ways. First, we follow

the existing literature and measure firm performance by two accounting based performance measures *ROA* (Return on assets).⁵ Next, we measure one year return of the firm's stock (*BHR*) in the market. $BHR = \prod_{j=1}^{12} (1 + MRET_j) - 1$, where *MRET_j* is the monthly return of a firm's stock. To control for the effect of firm characteristics on performance, we include the lagged value of performance (*ROA*), sales growth (*GROWTH*), firm size (*SIZE*), leverage (*LEV*), firm's listing age (*AGE*), market-to-book ratio (*PB*), industry, and year as control variables (Lev et al 2010; Su and He, 2010). We also include other known performance drivers such as advertising expenditures (*SALEEXO*), firm's beta (*BETA*). Finally, we also control for firms' political connections by including ownership types (*PRIVATE*) and CEO's political connections (*PC*) in the regression. Our primary research interest is whether charitable contributions *CONT_i* in the period *i* contribute to financial performance in the following period.

3.2 Sample selection and data description

The sample consists of A-share companies listed on the Shanghai Stock Exchange and the Shenzhen Stock Exchange from 2001 to 2006. We obtain a total of 6,576 observations for our primary tests after eliminating observations without sufficient information about charitable contributions and the ultimate owners of the firms, financial institutions, and observations with missing values for other variables as shown in Panel A of Table 1. The sample starts from 2001 because the disclosure on ultimate owners was mandated by the CSRC (CSRC 2001) in 2001. Our sample

⁵ We also measure firm performance with Return on Equity (ROE) in our analysis and the results remain the same. We do not report the results with ROE for the sake of brevity.

ends in 2006 to avoid the influence of split share structure reform completed in 2007 (Firth et al., 2010).⁶ A year-by-year distribution of the observations is presented in Panel B of Table 1.

We manually collect corporate charitable contributions from the annual report obtained from the Wind database. We also determine the nature of firm ownership from the annual report. A firm is classified as a state owned enterprise (SOE) if the state is the controlling shareholder, otherwise a private enterprise. A firm is considered a local SOE when its largest shareholder is a local government bureau. Other firm-specific information is obtained from the CSMAR database and Wind database. To avoid the influence of outliers in our analysis, we winsorize all continuous variables each year at the top and bottom 1%. Panel C of Table 1 presents the industry distribution of the sample observations.

[Insert Table 1 here]

Table 2 presents the summary statistics of the total sample in Panel A. Overall, 42.8% of sample firms made charitable contributions during the sample period and 26.7% of the sample firms are not controlled by the state, i.e. non-SOEs. The CEOs in about 21% of observations have some connections with the government. Panel B presents uni-variant t-tests of the variables presented in Panel A between SOEs and non-SOEs. It appears that the SOEs are more likely to make charitable contributions than the non-SOEs but the magnitude of contributions does not seem to differ. It is

⁶ Before 2007, shares owned by the state and legal persons cannot be traded in the stock market, creating a two-tier share structure in China. Since 2007, all the shares outstanding can be traded in the market. It is widely expected that the split share reform completed in 2007 have a significant impact on corporate governance and operations. In addition, China adopted a new set of accounting rules in 2007 which may affect the consistency in our empirical measures if our sample extends beyond 2006.

also interesting to know that there is no difference in CEOs' political connections between the SOEs and non-SOEs although the SOEs appear to be larger than non-SOEs in terms of firm market values. Also, non-SOEs appear to be more profitable than SOEs, both in terms of gross profit margin (GPM) and net income (LOSS). Panel C in Table 2 presents uni-variate t-tests of the variables in Panel A between donating firms and non-donating firms. It appears that the donating firms have better performance (ROA, BHR, GROWTH, and GPM), and have more state ownership (Private) and political connections (PC). There is no difference in market values between these two groups. Panel D of Table 2 presents correlation matrix of the key variables used in the study and there appears to be no concern for multi-collinearity.

[Insert Table 2 here]

4. Government influences and political connections on charitable contributions

4.1 The impact of government influences on charitable contributions

Table 3 presents the results of the estimation of regression model (1). The second column reports the results of the Logit analysis of the factors affecting firms' philanthropic giving while the third column analyzes the determinants of the amount of firms' philanthropic giving.⁷ The results in both columns show that the coefficient of *Private* is negative and statistically significant at the 1% level. This result indicates that state-owned firms are more likely to make charitable contributions and/or donate more than non-state owned firms. The significantly

⁷ In Column 3, LNCONT is defined as the logarithm of the amount donated by the firm plus 1. Hence, for firms that made zero charitable contribution in a particular year, LNCONT becomes zero.

positive coefficients on *PC* (at the 1% level) in both columns suggest a positive association between CEOs' political connections and corporate charitable contributions. The coefficients of *INDHHI* are significantly positive in both regressions, inconsistent with firms in high competition industries making more philanthropic contributions. This finding indicates that market forces do not appear to be a major driver for charitable contributions in China.

Consistent with the findings of prior research, the coefficients of *DISPERSION* are all significantly negative; suggesting that shareholding of the largest shareholder has a negative effect on corporate philanthropy. This finding is consistent with those of Brown et al. (2006) and Coffey and Wang (1998). Significantly positive relationships between *INDIR*, *BSIZE* and charitable contributions imply that good corporate governance practice leads to greater charitable contributions (Brown et al., 2006). *ROA*, *EMPLOYEE*, and firm size are positively associated with the corporate philanthropic contributions as expected. The coefficients on *CASH* are insignificant. The estimated coefficients of variable *Lev* are consistently positive and coefficients of *PB* are negative. These results indicate that the corporate resource constraints cannot explain corporate charitable contributions in China. Interestingly, the coefficients on *SALEEXP* and *ENVIND* are both positive and significant, consistent with firms with higher marketing expenditures and pollution propensity making more charitable contributions. Finally, listing age (*Age*) is significant and negative, suggesting less contributions for firms with a longer listing history.

[Insert Table 3 here]

4.2 The influence of government ownership types and political connections

To further investigate the impact of political connections, we divide listed SOEs into those controlled by the central government and those controlled by local governments. We then analyze whether the corporate philanthropic activities differ between the two groups. We distinguish centrally owned from locally owned SOEs because the motives for retaining ownership of SOEs by the two levels of the government differ significantly. The primary motivation for ownership by the central government is to maintain control over key industries and to ensure the safety of the national economy (State-owned Assets Supervision and Administration Commission of China, 2006), whereas the motivation of local governments is to increase local GDP, to reduce local unemployment, and to enhance social stability (Jin *et al.*, 2005). Therefore, local governments have more incentives to exercise influences on the SOEs under their control and to transfer resources from SOEs to the local economy than the central government⁸. Compared with the SOEs controlled by the central government, locally owned SOEs have more pressure to provide social services, increasing employment, and obtaining social sustainability, leading to stronger incentives to make charitable contributions. Accordingly, we expect that locally owned SOEs are more likely to make charitable contributions than centrally owned SOEs.

Columns 2 and 3 in Table 4 report the results of the effect of governmental

⁸ Jian and Wong (2010) and Cheung *et al.* (2008) report that SOEs controlled by local governments are more likely to transfer resources back to their parents through related party transactions than those owned by the central government. Firms controlled by the central government actually benefited from the related party transactions with other non-listed SOEs controlled by the central government (Cheung *et al.*, 2008).

ownership type on corporate philanthropy for the subsample of SOEs. Consistent with our expectation, the coefficients of *Local* in both models are positive and significant at the 1% level, indicating that locally owned SOEs are more likely to make (more) corporate philanthropic contributions than centrally controlled SOEs. The results of other control variables are similar to those presented in Table 3.

To further investigate the impact of political connections on charitable contributions, we re-estimate model (1) using non-SOEs firms only and the results are reported in columns 4 and 5 in Table 4. *PC* remains positive and significant even in this sub-sample. This result indicates that non-SOEs with politically connected CEOs are more likely to make charitable contributions than non-SOEs without politically connected CEOs.

[Insert Table 4 here]

5. Corporate philanthropic contributions and future firm performance

5.1 Charitable contributions and future firm performance

Table 5 reports the regression results of model (2) using both the accounting based and market based performance measures in the subsequent period (i.e. one year following the charitable contributions). As noted in the table, the estimated coefficients of *DCONT* and *LNCONT* are consistently positive and significant for all two firm performance measures (*ROA* and *BHR*), suggesting that the corporate charitable activity in the prior period is positively associated with firm performance in the subsequent period. This finding is consistent with the finding in the literature that

firms engaged in philanthropy are more likely to improve their performance and value (Patten, 2008; Su and He, 2010).⁹

[Insert Table 5 here]

5.2 Are charitable contributions strategic?

Lev et al., (2010) find that corporate charitable contributions are significantly associated with future revenue increases. They argue that corporate philanthropy helps enhance customer satisfaction, hence improves future sales, consistent with charitable contributions being strategic and driven by profit maximization (Fry, et al., 1982; Navarro, 1988; Brown et al., 2006). It may be argued that Chinese listed firms also “do good in order to do well.” To examine whether corporate philanthropy in China has similar positive impact on customer satisfaction or firm’s reputation, we investigate whether corporate philanthropic contributions are associated with future revenue growth.

The regression results of the relationship between corporate philanthropic giving and future sales growth are presented in Table 6. The dependent variable is the sale growth in the period following firms’ charitable contributions. The coefficients of *DCONT* and *LNCONT* although positive are not significant in either model. These results indicate that the positive effect of charitable contributions on future firm performance reported in Table 5 is not associated with improvement in corporate reputation (Brammer and Millington, 2005) or customer satisfaction (Lev et al., 2010).

⁹ We caution the reader that the positive association does not imply a causal relationship between charitable donation and future firm performance.

[Insert Table 6 here]

5.3 *Philanthropic contributions and political goodwill*

To investigate specific mechanisms underlying the positive association between charitable contributions and firm performance reported in Table 5, we examine whether corporate philanthropy enhances a firm's political goodwill with the government. Since political goodwill is not directly observable, our analysis focuses on whether charitable contributions improve firms' accessibility to special resources controlled by the government, e.g. bank loans and government subsidies.¹⁰ We measure bank loans as (1) *CFLOAN*, the cash flow from new bank loans and other borrowings divided by the total assets; and (2) *LCOST*, the interest expenditures divided by firms' bank loans. The first measure is a proxy for new bank loans relative to firm size and the second measure is a proxy for firms' borrowing costs. We measure subsidies firms received with *DSUBSI*, an indicator variable with value 1 if the firm received subsidies from the government in a year and 0 otherwise.¹¹ If charitable contributions create political goodwill which may improve firms' accessibility to government controlled resources, we will expect that charitable contributions will be positively associated with firms' new bank loans and government subsidies and negatively associated with firms' borrowing costs.

Panel A in table 7 presents the results of multivariate analysis on the relationship between corporate charitable contributions and bank loans and government subsidies.

¹⁰ Government subsidy may come in the form of tax refund, direct subsidy or fund transfer for certain products or industry sectors supported in the government economic plan, loss subsidy for certain sectors, subsidy for sectors and industries identified as priority for economic development. The amount of subsidy data is available from Wind database before the accounting reform in 2007.

¹¹ We replicate our analysis with the total amount of subsidies received from the government deflated by the firm's total assets and the results are largely consistent with the *DSUBSI*.

The coefficient of *DCONT* on *CFLOAN* is significantly positive and the coefficient of *DCONT* on *LCOST* is significantly negative. This result is consistent with firms with charitable contributions receiving more bank loans and paying less interest for their borrowing. Similarly, the coefficients of *DCONT* and *LNCONT* are positive and significant in *DSUBSI*, indicating that the firms making charitable contributions are more likely to receive direct subsidies from the government. Interestingly, only one estimated coefficient of *Private* is significant out of the six regressions and none of the coefficient estimates on *PC* is significant.

To further investigate whether charitable contributions enhances accessibility to government controlled resources for firms with political connections already, we replicate the analysis in Panel A of Table 7 with the subset of the sample firms that are either owned by the state (SOEs) and have a politically connected CEOs (*PC*=1). The results of this additional analysis are presented in Panel B of Table 7 and they are consistent with those reported in Panel A. It can be seen clearly that even for firms with political connections, charitable contributions still improve their accessibility to government controlled resources. The combined results in Panels A and B in Tables 7 are consistent with charitable contributions enhance firms' political goodwill and improve firms' accessibility to government controlled resources. This explains why charitable contributions are associated with better future firm performance as shown in Table 5.

[Insert Table 7 here]

5.4 Sensitivity analysis for endogeneity

One inherent concern in this literature is endogeneity. One may suspect that charitable contribution decisions and firm performance are endogenously determined. If this is the case, the coefficient estimates in Table 5 will contain bias and are not reliable. To overcome this concern, we implement a simultaneous equations system of firm performance and charitable contributions and we estimate the simultaneous equations with the three stage least square regression similar to Durnev and Kim (2005). The results of the simultaneous equations are reported in Panel A of Table 8. The coefficient estimate on *LNCONT* remains positive and significant.

Similarly, one may be concerned that the positive association between charitable contributions and increased bank loans as reported in Table 7 may be biased. It is possible that firms' philanthropic giving and bank loans are endogenously determined, thus the coefficient estimates in Tables 7 may contain bias. To overcome this concern, once again we re-estimate our empirical models using the three-stage least square method. The simultaneous equations model has two equations. In the charitable contributions equation, *LNCONT* is the dependent variable and the bank loans and other control variables are independent variables. In the bank loan equation, bank borrowings (*CFLOAN* and *LCOST*) are the dependent variable and *LNCONT* and other control variables are independent variables. The results, presented in Panel B in Table 8, show that there exists a positive and significant association between charitable contributions and bank loans in the three-stage least squares model. These sensitivity analyses alleviate the concern for bias due to endogeneity in the results reported in Tables 5 and 7.

[Insert Table 8 here]

6. Conclusion

This study examines the determinants and consequences of charitable contributions by listed companies in China. We provide evidence that state-owned enterprises and firms with politically connected CEOs are more likely to make charitable contributions. We also find that firms owned by local governments are more likely to make charitable contributions than firms owned by the central government. This finding differs from the existing study that focuses on the charitable contributions following the natural disaster such as the Sichuan Earthquake in 2008 (Zhang et al 2009). Furthermore, our results show that resource constraints and industry competition cannot explain firms' philanthropic activities in China. We document a positive association between charitable contributions and future firm performance but we find no evidence that charitable contributions in China have any impact on future sales growth. Further analysis shows that firms making charitable contributions benefited from improved accessibility to government controlled resources such as bank loans and government subsidies.

The findings in this study differ from the existing literature that shows firms use charitable contributions as a marketing tool to enhance firm reputation and product brand in the eyes of consumers. Our findings are more consistent with the government influences and political connections playing a key role in firms' charitable contribution decisions in China. It appears that listed companies in China use charitable contributions to build the political goodwill with the government and

politicians and in return firms received favorable bank loans and direct subsidies from the government. This behavior is persistent regardless whether firms are state owned or have CEOs who are politically connected. Our results are inconsistent with direct government inference in firms' philanthropic activities because we do not find evidence that contributing firms suffer in future firm performance.

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Table 1. Sample selection and distribution

Panel A. Sample selection						
Sample period: 2001-2006						
Sample scope: All A-share firms in the WIND database with complete financial data						8869
Minus: Observations of financial institutions						32
Observations with insufficient information on the ultimate controlling shareholders						1823
Observations with missing data						438
Available observations						6576
Panel B. Sample distribution by year						
Year	SOEs	Private firms	Donation	No Donation	Subtotal	
2001	748	161	301	608	909	
2002	804	188	377	615	992	
2003	833	253	468	618	1086	
2004	842	305	512	635	1147	
2005	798	423	566	655	1221	
2006	794	427	592	629	1221	
Total	4819	1757	2816	3760	6576	

Panel C. Sample distribution by industry

Industry	SOEs	Private	Donating	Non donating	Subtotal
Agriculture, forestry, husbandry, and fishery	113	36	84	65	149
Mining	84	6	59	31	90
Food and beverage	215	82	155	142	297
Textile, garment manufacturing, and products of leather and fur	167	120	126	161	287
Wood and furniture	121	39	49	111	160
Papermaking and printing	94	21	56	59	115
Petroleum, chemical, plastics, and rubber products	525	171	307	389	696
Electronics	149	59	87	121	208
Metal and non-metal	457	126	210	373	583
Machinery, equipment, and instrument manufacturing	733	251	375	609	984
Medicine and biological products manufacturing	260	154	232	182	414
Other manufacturing	51	45	35	61	96
Production and supply of electricity, steam, and tap water	283	15	143	155	298
Construction	83	30	68	45	113
Transportation and warehousing	222	27	100	149	249
Information technology	261	127	126	262	388
Wholesale and retail	369	101	238	232	470
Real estate	223	110	106	227	333
Social services	158	47	80	125	205
Communication and culture	33	15	14	34	48
Conglomerates	<u>218</u>	<u>175</u>	<u>166</u>	<u>227</u>	<u>393</u>
Total	4819	1757	2816	3760	6576

Table 2. Summary statistics of the sample

Panel A. Total sample

Variables	N	mean	Median	min	max
DCONT	6576	0.4282	0	0	1
CONT	6576	172630	0	0	4789780
ROA	6576	0.0264	0.0333	-0.6264	0.2748
BHR	6208	-0.0536	-0.1396	-0.7912	2.0289
GROWTH	6576	0.2253	0.1478	-0.8945	4.4651
CFLOAN	6056	0.2729	0.2474	0.0013	1.0349
LCOST	6576	0.1259	0.0555	0	2.1301
DSUBSI	6576	0.5861	1	0	1
SUBSIDY	6576	0.0022	0.0001	0	0.0525
PRIVATE	6576	0.2672	0	0	1
PC	6576	0.2106	0	0	1
INDHHI	6576	0.0674	0.0424	0.0188	0.8892
DISPERSION	6576	0.2179	0.1818	0.0108	0.6553
INDIR	6576	0.2886	0.3333	0	0.5
BSIZE	6576	9.5906	9	3	19
PB	6576	4.0941	2.9882	0.7288	109.344
LEV	6576	0.4976	0.4967	0.0733	3.3618
GPM	6576	0.2508	0.2185	-0.0963	0.7935
ENVIND	6576	0.4227	0	0	1
SALEEXP	6576	0.0607	0.039	0	0.4943
MV	6576	2800000000	1920000000	274000000	23600000000
EMPLOYMENT	6576	3025	1685	25	37554
AGE	6576	6.3127	6	1	14
CASH	6576	0.1725	0.138	0.0017	1.2735
BETA	6576	1.027	1.0592	0.0766	1.6088
LOSS	6576	0.1353	0	0	1

Panel B. SOEs versus non-SOEs firms

Variables	N	SOEs	Non-SOEs	Difference	t-Value
DCONT	6576	0.4447	0.383	0.0617***	4.48
CONT	6576	177349	159688	17661	1.21
ROA	6576	0.0315	0.0124	0.0191***	8.36
BHR	6208	-0.0428	-0.0836	0.0408***	3.81
GROWTH	6576	0.2188	0.2431	-0.0243*	-1.65
CFLOAN	6056	0.2676	0.2877	-0.0201***	-3.7
LCOST	6576	0.1234	0.133	-0.0096	-1.29
DSUBSI	6576	0.5862	0.5857	0.0005	0.04
SUBSIDY	6576	0.0021	0.0024	-0.0003	-1.39
PC	6576	0.2065	0.222	-0.0155	-1.36
INDHHI	6576	0.0695	0.0614	0.0081***	2.83
DISPERSION	6576	0.242	0.1519	0.0901***	24.55

INDIR	6576	0.2789	0.3153	-0.0364***	-11.35
BSIZE	6576	9.7948	9.0307	0.7641***	12.63
PB	6576	4.0391	4.2451	-0.206	-1.3
LEV	6576	0.4821	0.54	-0.0579***	-9.17
GPM	6576	0.2462	0.2632	-0.017***	-3.93
ENVIND	6576	0.4327	0.3956	0.0371***	2.7
SALEEXP	6576	0.0555	0.0752	-0.0197***	-10.13
MV	6576	3130000000	1890000000	1240000000***	14.91
EMPLOYMENT	6576	3350	2136	1214***	10.11
AGE	6576	6.2511	6.4815	-0.2304***	-2.58
CASH	6576	0.1728	0.1716	0.0012	0.33
BETA	6576	1.0362	1.0018	0.0344***	4.62
LOSS	6576	0.1191	0.1799	-0.0608***	-6.39

Panel C. Donating versus non-donating firms

Variables	N	Donating	Non-donating	Difference	t-Value
ROA	6576	0.0364	0.0189	0.0175***	8.57
BHR	6208	-0.0317	-0.0698	0.0381***	3.99
GROWTH	6576	0.2384	0.2155	0.0229***	1.75
CFLOAN	6056	0.2874	0.2615	0.0259***	5.37
LCOST	6576	0.113	0.1356	-0.0226***	-3.38
DSUBSI	6576	0.6541	0.5351	0.1190***	9.76
SUBSIDY	6576	0.0023	0.0021	0.0002	1.60
PRIVATE	6576	0.239	0.2883	-0.0493***	-4.45
PC	6576	0.2418	0.1872	0.0546***	5.38
INDHHI	6576	0.0736	0.0627	0.0109***	4.25
DISPERSION	6576	0.2115	0.2227	-0.0112	-3.26
INDIR	6576	0.3012	0.2792	0.022***	7.62
BSIZE	6576	9.7614	9.4628	0.2986***	5.47
PB	6576	3.5733	4.4842	-0.9109***	-6.45
LEV	6576	0.4946	0.4998	-0.0052	-0.9
GPM	6576	0.2545	0.248	0.0065*	1.67
ENVIND	6576	0.4574	0.3968	0.0606***	4.93
SALEEXP	6576	0.062	0.0598	0.0022	1.3
MV	6576	2840000000	2770000000	70000000	0.88
EMPLOYMENT	6576	3436	2718	718***	6.66
AGE	6576	6.3065	6.3173	-0.0108	0.14
CASH	6576	0.1743	0.1711	0.0032	0.95
BETA	6576	1.0272	1.0267	0.0005	0.08
LOSS	6576	0.0977	0.1636	-0.0659***	-7.77

Panel D. Correlation matrix of key variables

	DCONT	LNCONT	ROA	BHR	GROWTH	CFLOAN	LCOST	DSUBSI	PRIVATE	PC	INDHII
DCONT	1										
LNCONT	0.3797***	1									
ROA	0.1051***	0.1175***	1								
BHR	0.0506***	0.1083***	0.2772***	1							
GROWTH	0.0215*	0.0309**	0.236***	0.1187***	1						
CFLOAN	0.0689***	0.0294**	-0.0616***	-0.0025	0.0082	1					
LCOST	-0.0417***	-0.0161	0.0108	0.0084	0.0011	-0.1833	1				
DSUBSI	0.1196***	0.0618***	0.0026	0.0169	-0.0143	0.1254***	-0.0427***	1			
PRIVATE	-0.0551***	-0.0149	-0.1026***	-0.0483***	0.0203*	0.0475***	0.0159	-0.0005	1		
PC	0.0663***	0.014	0.0263**	-0.0099	0.0058	-0.0032	-0.0027	-0.0286**	0.0168	1	
INDHII	0.0524***	0.0853***	0.0824***	0.0185	0.0092	-0.049***	0.0354***	0.0205*	-0.0349***	0.0664***	1

DCONT is a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise; *LNCONT* is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, *LNCONT* is zero; *ROA* is equal to net income divided by total assets. *AGE* is the number of years since listing; $BHR = \prod_{j=1}^{12} (1 + MRET_j) - 1$, where *MRETj* is the monthly

return of a firm; *GROWTH* is sales growth, measured as annual change in sales revenue, scaled by lagged sales; *Year* is year indicator variable; *CFLOAN* is the CASH flow from new bank loans and other borrowings divided by the total assets; *LCOST* is the interest expenditure divided by the average bank loans; *DSUBSI* is an indicator variable equal to 1 if the firm received subsidies from the government and 0 otherwise; *SUBSIDY* is equal to the subsidies received from the government divided by total assets; *PRIVATE* is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; *PC* is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; $INDHII = \sum_{i=1}^n (Xi / X)^2$, where *Xi* is the sales

revenue of firm *i* in the industry, *X* is the total sales revenue for all firms in the industry, and *n* is the number of firms; *DISPERSION* is the sum of the squares of percentage shareholdings of the top 10 largest shareholders; *INDIR* is the ratio of independent directors to total number of directors; *BSIZE* is the number of total directors; *PB* is the market-to-book ratio, equal to total market value divided by total book value of shareholder equity; *LEV* is total debts divided by total assets; *GPM* is equal to gross profit divided by total revenue; *ENVIND* is a dummy variable with a value of 1 for companies from polluting industries (Mining, Textile, garment manufacturing, and products of leather and fur, Production and supply of electricity, steam, and tap water, Metal and non-metal, Petroleum, chemical, plastics, and rubber products, Wood and furniture, Papermaking and printing, Medicine and biological products) and 0 otherwise; *SALEEXP* is equal to sales expense to total revenue; *MV* is the total market value; *EMPLOYMENT* is the total number of employees; *AGE* is the number of years since listing; *CASH* is equal to cash holding divided by the total assets; *BETA* is the BETA for each firm year; *LOSS* is a dummy variable assuming a value of 1 if the net income of a firm is negative and 0 otherwise. .***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Table 3. Determinants of corporate philanthropic contributions

VARIABLES	DCONT		LNCONT	
	Coefficient	z value	Coefficient	t value
PRIVATE	-0.336***	-5.28	-0.858***	-5.03
PC	0.358***	5.63	1.019***	5.89
INDHII	0.501*	1.91	1.602**	2.31
DISPERSION	-1.526***	-6.93	-4.543***	-7.75
INDIR	1.216***	2.85	3.415***	3.00
BSIZE	0.0311**	2.49	0.0742**	2.21
PB	-0.0336***	-4.12	-0.0515***	-4.00
LEV	0.376***	2.76	1.655***	4.60
GPM	-0.332	-1.53	-0.795	-1.38
ENVIND	0.150***	2.76	0.453***	3.06
SALEEXP	1.715***	3.84	5.697***	4.77
SIZE	0.140***	3.11	0.799***	6.59
EMPLOYEE	0.118***	4.93	0.351***	5.52
ROA	2.998***	6.59	8.320***	7.42
AGE	-0.0256***	-2.76	-0.0831***	-3.31
CASH	-0.113	-0.55	-0.110	-0.20
GROWTH	0.0256	0.49	0.0679	0.49
Year fixed effect	Yes		Yes	
Constant	-4.674***	-5.12	-16.87***	-6.86
Observations	6576		6576	
Pseudo R2/Adj. R2	0.0436		0.0719	

DCONT is a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise; *LNCONT* is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, *LNCONT* is zero; *PRIVATE* is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; *PC* is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; $INDHII = \sum_{i=1}^n (X_i / X)^2$, where X_i is the sales revenue of firm i in the industry, X is the total sales revenue for all firms in the

industry, and n is the number of firms; *DISPERSION* is the sum of the squares of percentage shareholdings of the top 10 largest shareholders; *INDIR* is the ratio of independent directors to total number of directors; *BSIZE* is the number of total directors; *PB* is the market-to-book ratio, equal to total market value divided by total book value of shareholder equity; *LEV* is total debts divided by total assets; *GPM* is equal to gross profit divided by total revenue; *ENVIND* is a dummy variable with a value of 1 for companies from polluting industries (Mining, Textile, garment manufacturing, and products of leather and fur, Production and supply of electricity, steam, and tap water, Metal and non-metal, Petroleum, chemical, plastics, and rubber products, Wood and furniture, Papermaking and printing, Medicine and biological products) and 0 otherwise; *SALEEXP* is equal to sales expenditures to total revenue; *SIZE* is the logarithm of total market value; *EMPLOYEE* is the logarithm of total number of employees; *ROA* is equal to net income divided by total assets. *AGE* is number of years since listing; *CASH* is equal to cash holding to total assets; *GROWTH* is sales growth, measured as annual change in sales revenue, scaled by lagged sales; *Year* is year indicator variable. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table 4. The impact of government ownership types on corporate charitable contributions

VARIABLES	DCONT		LNCONT		DCONT		LNCONT	
	Coefficient	z value	Coefficient	t value	Coefficient	z value	Coefficient	t value
LOCAL	0.256***	3.57	0.723***	3.69				
PC	0.387***	5.15	1.109***	5.34	0.223*	1.79	0.639**	2.04
INDHII	0.675**	2.28	2.016**	2.57	0.0941	0.15	0.841	0.55
DISPERSION	-1.300***	-5.36	-3.929***	-5.95	-1.793***	-3.22	-5.127***	-3.79
INDIR	0.800	1.63	2.257*	1.68	3.079***	3.40	7.891***	3.66
BSIZE	0.0432***	3.08	0.105***	2.72	0.0125	0.44	0.0357	0.51
PB	-0.0318***	-3.41	-0.0520***	-3.41	-0.0415**	-2.42	-0.0507**	-2.12
LEV	0.369**	2.11	1.753***	3.67	0.592**	2.50	1.865***	3.39
GPM	-0.298	-1.16	-0.792	-1.13	-0.291	-0.64	-0.491	-0.47
ENVIND	0.145**	2.28	0.423**	2.40	0.121	1.09	0.387	1.39
SALEEXP	2.436***	4.36	8.069***	5.26	0.108	0.13	1.138	0.59
SIZE	0.123**	2.37	0.740***	5.20	0.390***	3.92	1.502***	6.12
EMPLOYEE	0.0706**	2.51	0.224***	2.91	0.195***	4.10	0.523***	4.59
ROA	2.131***	3.82	6.795***	4.58	4.714***	5.40	9.686***	5.63
AGE	-0.0225**	-2.05	-0.0723**	-2.38	-0.0315*	-1.77	-0.103**	-2.32
CASH	-0.228	-0.92	-0.389	-0.58	0.107	0.27	0.376	0.38
GROWTH	0.0530	0.79	0.125	0.68	0.000511	0.01	0.0417	0.20
Year fixed effect	Yes		Yes		Yes		Yes	
Constant	-4.331***	-4.11	-15.76***	-5.44	-10.91***	-5.31	-33.90***	-6.68
Observations	4819		4819		1757		1757	
Pseudo R2/Adj. R2	0.0371		0.0603		0.0840		0.120	

DCONT is a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise; *LNCONT* is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, *LNCONT* is zero; *PRIVATE* is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; *PC* is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; $INDHII = \sum_{i=1}^n (X_i / X)^2$, where X_i is the sales revenue of firm i in the industry, X is the total sales revenue for all firms in the

industry, and n is the number of firms; *DISPERSION* is the sum of the squares of percentage shareholdings of the top 10 largest shareholders; *INDIR* is the ratio of independent directors to total number of directors; *BSIZE* is the number of total directors; *PB* is the market-to-book ratio, equal to total market value divided by total book value of shareholder equity; *LEV* is total debts divided by total assets; *GPM* is equal to gross profit divided by total revenue; *ENVIND* is a dummy variable with a value of 1 for companies from polluting industries (Mining, Textile, garment manufacturing, and products of leather and fur, Production and supply of electricity, steam, and tap water, Metal and non-metal, Petroleum, chemical, plastics, and rubber products, Wood and furniture, Papermaking and printing, Medicine and biological products) and 0 otherwise; *SALEEXP* is equal to sales expenditures to total revenue; *SIZE* is the logarithm of total market value; *EMPLOYEE* is the logarithm of total number of employees; *ROA* is equal to net income divided by total assets. *AGE* is number of years since listing; *CASH* is equal to cash holding to total assets; *GROWTH* is sales growth, measured as annual change in sales revenue, scaled by lagged sales; *Year* is year indicator variable. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table 5. The impact of charitable contributions on future firm performance

VARIABLES	NTROA		NTROA		BHR		BHR	
	Coefficient	t value	Coefficient	t value	Coefficient	t value	Coefficient	t value
DCONT	0.00935***	4.61			0.0139**	2.03		
LNCONT			0.000819***	4.72			0.00116**	1.98
PRIVATE	-0.00560**	-2.38	-0.00564**	-2.40	0.00389	0.49	0.00378	0.47
PC	0.000217	0.09	0.000154	0.06	-0.00518	-0.62	-0.00523	-0.62
GROWTH	0.00954***	4.89	0.00954***	4.89	0.0411***	6.20	0.0411***	6.21
SIZE	0.0143***	9.20	0.0140***	8.95	0.123***	23.29	0.123***	23.12
ROA	0.466***	31.27	0.465***	31.18	0.647***	13.09	0.646***	13.06
LEV	0.00746	1.44	0.00683	1.32	0.0350**	2.01	0.0342**	1.96
AGE	-0.00139***	-3.98	-0.00139***	-3.97	-0.00444***	-3.60	-0.00444***	-3.61
PB	-0.000245	-1.35	-0.000243	-1.34	0.00253***	3.96	0.00253***	3.95
SALEEXP	0.0205	1.26	0.0195	1.19				
BETA					-0.0693***	-5.06	-0.0694***	-5.07
Industry fixed effect	Yes		Yes		Yes		Yes	
Year fixed effect	Yes		Yes		Yes		Yes	
Constant	-0.331***	-9.49	-0.323***	-9.25	-2.507***	-20.78	-2.496***	-20.63
Observations	6576		6576		6208		6208	
Adj. R2	0.283		0.283		0.513		0.513	

NTROA is *ROA* one year following the charitable contributions; *BHR* is one year buy and hold return, $BHR = \prod_{j=1}^{12} (1 + MRET_j) - 1$, where

MRET_j is the monthly return of a firm; *DCONT* is a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise; *LNCONT* is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, *LNCONT* is zero; *PRIVATE* is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; *PC* is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; *GROWTH* is sales growth, measured as annual change in sales revenue, scaled by lagged sales; *SIZE* is the logarithm of the market value. *ROA* is equal to net income divided by total assets. *LEV* is equal to total debts divided by total assets; *AGE* is number of years since listing; *PB* is the market-to-book ratio, equal to total market value divided by total shareholder equity; *SALEEXP* is equal to sales expenditures to total revenue; *BETA* is the beta for each firm year; *Year* is indicators of year. *Industry* is indicators for the 22 industries as classified by the CSRC. ***, **, and * denote significance at the 1%, 5%, and 10% Level, respectively.

Table 6. The impact of charitable contributions on future sales GROWTH

VARIABLES	NTGROWTH		NTGROWTH	
	coefficient	t value	coefficient	t value
DCONT	0.00189	0.12		
LNCONT			-0.000176	-0.14
PRIVATE	0.0141	0.81	0.0139	0.79
PC	-0.0114	-0.62	-0.0112	-0.60
GROWTH	0.00112	0.08	0.00116	0.08
SIZE	-0.0289**	-2.49	-0.0286**	-2.45
ROA	0.732***	6.58	0.734***	6.60
SALEXP	0.620***	5.11	0.622***	5.12
LEV	0.170***	4.41	0.170***	4.42
AGE	-0.00697***	-2.67	-0.00699***	-2.68
PB	0.00213	1.58	0.00211	1.56
Industry fixed effect		Yes		Yes
Year fixed effect		Yes		Yes
Constant	0.673***	2.59	0.669**	2.57
Observations	6576		6576	
Adj. R2	0.0359		0.0359	

NTGROWTH is sales growth one year following the charitable contributions; *DCONT* is a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise; *LNCONT* is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, *LNCONT* is zero; *PRIVATE* is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; *PC* is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; *GROWTH* is sales growth, measured as annual change in sales revenue, scaled by lagged sales; *SIZE* is the logarithm of the market value. *ROA* is equal to net income divided by total assets. *SALEXP* is equal to sales expenditures to total revenue; *LEV* is equal to total debts divided by total assets; *AGE* is listing years; *PB* is the market-to-book ratio, equal to the market value divided by shareholder equity; *Year* is year indicators. *Industry* is industry indicators for the 22 industries as classified by the CSRC. ***, **, and * denote significance at the 1%, 5%, and 10% Level, respectively.

Table 7. The impact of charitable contributions on bank loans and borrowings and government subsidies

Panel A. Results of the whole sample

VARIABLES	CFLOAN		CFLOAN		LCOST		LCOST		DSUBSI		DSUBSI	
	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value
DCONT	0.0245***	5.25			-0.0231***	-3.41			0.453***	8.36		
LNCONT			0.00210***	5.26			-0.00188***	-3.26			0.0403***	8.64
PRIVATE	0.00968*	1.78	0.00953*	1.75	-0.0120	-1.53	-0.0118	-1.50	-0.0433	-0.69	-0.0449	-0.72
PC	-0.00335	-0.58	-0.00348	-0.60	0.00704	0.85	0.00707	0.86	-0.0866	-1.32	-0.0900	-1.37
INDIR	0.141***	3.83	0.141***	3.82	-0.0979*	-1.83	-0.0980*	-1.83				
BSize	-0.000310	-0.28	-0.000294	-0.27	-0.00271*	-1.72	-0.00273*	-1.74				
SIZE	0.00780**	2.11	0.00691*	1.86	-0.0418***	-7.92	-0.0411***	-7.76	0.332***	7.74	0.317***	7.38
GROWTH	-0.0124***	-2.69	-0.0124***	-2.69	0.00655	1.01	0.00651	1.00	-0.0795	-1.54	-0.0787	-1.52
MORTGAGE	-0.0640***	-4.14	-0.0636***	-4.12	-0.0141	-0.64	-0.0145	-0.66				
ROA	0.208***	5.76	0.206***	5.70	0.0144	0.29	0.0154	0.31	-0.744	-1.41	-0.797	-1.51
LEV	0.340***	24.41	0.338***	24.25	-0.149***	-8.64	-0.147***	-8.56	0.773***	5.36	0.742***	5.15
AGE	-0.00113	-1.39	-0.00112	-1.38	0.000620	0.53	0.000618	0.53	0.0180*	1.92	0.0182*	1.95
PB	-0.000394	-0.88	-0.000393	-0.88	0.00303***	5.02	0.00303***	5.03				
LOSS									-0.400***	-3.65	-0.403***	-3.67
Industry fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	-0.0453	-0.56	-0.0255	-0.31	1.073***	9.26	1.057***	9.09	-6.919***	-7.23	-6.591***	-6.88
Observations	6056		6056		6576		6576		6576		6576	
Adj. R2/Pseudo R2	0.120		0.120		0.0410		0.0409		0.0547		0.0553	

Panel B. Results of the subsample of firms with political connections

VARIABLES	CFLOAN		CFLOAN		LCOST		LCOST		DSUBSI		DSUBSI	
	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value
DCONT	0.0167***	3.29			-0.0228***	-3.01			0.444***	7.35		
LNCONT			0.00144***	3.34			-0.00182***	-2.82			0.0386***	7.46
INDIR	0.141***	3.54	0.142***	3.54	-0.0756	-1.26	-0.0760	-1.27				
BSIZE	-0.000164	-0.14	-0.000150	-0.13	-0.00298*	-1.72	-0.00302*	-1.74				
SIZE	0.00350	0.88	0.00292	0.73	-0.0397***	-6.73	-0.0391***	-6.60	0.284***	5.99	0.271***	5.70
GROWTH	-0.0179***	-3.33	-0.0178***	-3.33	0.00872	1.12	0.00870	1.11	-0.0999	-1.61	-0.0992	-1.59
MORTGAGE	-0.0894***	-5.35	-0.0891***	-5.34	-0.00325	-0.13	-0.00365	-0.15				
ROA	0.184***	4.34	0.182***	4.30	0.0568	0.95	0.0580	0.97	-1.553**	-2.42	-1.605**	-2.50
LEV	0.426***	25.72	0.424***	25.60	-0.216***	-10.01	-0.215***	-9.93	1.105***	6.16	1.071***	5.97
AGE	-0.00121	-1.35	-0.00121	-1.34	-0.000533	-0.40	-0.000536	-0.40	0.0291***	2.71	0.0293***	2.73
PB	-0.000873*	-1.77	-0.000873*	-1.76	0.00283***	4.03	0.00284***	4.05				
LOSS									-0.490***	-3.85	-0.492***	-3.862
Industry fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effect	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	0.0452	0.52	0.0583	0.67	1.057***	8.20	1.041***	8.06	-6.001***	-5.69	-5.703***	-5.40
Observations	4805		4805		5209		5209		5209		5209	
Pseudo R2/Adj. R2	0.161		0.161		0.0503		0.0501		0.0578		0.0581	

CFLOAN is the CASH flow from new bank loans and other borrowings divided by the total assets; *LCOST* is the interest expenditure divided by the average bank loan; *DSUBSI* is an indicator variable equal to 1 if the firm received subsidies from the government and 0 otherwise; *DCONT* is a dichotomous variable assuming a value of 1 if a firm donated in a year and 0 otherwise; *LNCONT* is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, *LNCONT* is zero; *PRIVATE* is a dummy variable with a value of 0 for companies whose controlling shareholder is the state and 1 otherwise; *INDIR* is the ratio of independent directors to total number of directors; *BSIZE* is the number of directors in the board; *SIZE* is the logarithm of the market value; *GROWTH* is sales growth, measured as annual change in sales revenue, scaled by lagged sales; *MORTGAGE* is equal to property, plant and equipment to total assets; *ROA* is equal to net income divided by total assets. *LEV* is equal to total debts divided by total assets; *AGE* is the natural logarithm of the listing years; *PB* is the market-to-book ratio, equal to the market value divided by shareholder equity; *LOSS* is a dummy variable assuming a value of 1 if the net income of a firm is negative and 0 otherwise; *Year* is year indicators. *Industry* is indicators for the 22 industries classified by the CSRC. ***, **, and * denote significance at the 1%, 5%, and 10% Level, respectively.

Table 8. Three stage least square estimation of charitable contributions and bank borrowing, ROA

Panel A. Three stage least square estimation of charitable contributions and ROA

VARIABLES	NTROA		LNCONT	
	Coefficient	t value	Coefficient	t value
LNCONT	0.00193***	11.17		
NTROA			11.26***	13.55
PRIVATE	-0.00488**	-2.09	-0.787***	-4.62
PC	-0.000984	-0.40	0.988***	5.72
GROWTH	0.00937***	4.82	0.0483	0.35
SIZE	0.0130***	8.31	0.703***	5.84
ROA	0.460***	30.96		
SALEEXP	0.0137	0.85	4.907***	4.26
LEV	0.00503	0.98	1.165***	3.45
AGE	-0.00134***	-3.83	-0.0748***	-2.99
PB	-0.000180	-1.00	-0.0478***	-3.72
INDHHI			1.521**	2.20
DISPERSION			-4.697***	-8.04
INDIR			3.343***	2.95
BSize			0.0776**	2.32
GPM			-0.720	-1.30
ENVIND			0.445***	3.02
EMPLOYEE			0.366***	5.80
CASH			-0.00194	-0.00
Industry	Yes			
Year	Yes		Yes	
Constant	-0.303***	-8.70	-14.72***	-6.03
Observations	6576		6576	
Chi-squared	2763		656.7	

NTROA is ROA one year following the charitable contributions; LNCONT is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, LNCONT is zero; PRIVATE is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; PC is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; GROWTH is sales GROWTH, measured as annual change in sales revenue, scaled by lagged sales; SIZE is the logarithm of total market value; ROA is equal to net income divided by total assets; SALEEXP is equal to sales expense to total revenue; LEV is total debts divided by total assets; AGE is the listing years; PB is the market-to-book ratio, equal to total market value divided by total book value of shareholder equity; $INDHHI = \sum_{i=1}^n (Xi / X)^2$, where Xi is the sales revenue of firm i in the industry,

X is the total sales revenue for all firms in the industry, and n is the number of firms; DISPERSION is the sum of the squares of percentage shareholdings of the top 10 largest shareholders; INDIR is the ratio of independent directors to total number of directors; BSize is the number of total directors; GPM is equal to gross profit divided by total revenue; ENVIND is a dummy variable with a value of 1 for companies from industries of pollution (Mining, Textile, garment manufacturing, and products of leather and fur, Production and supply of electricity, steam, and tap water, Metal and non-metal, Petroleum, chemical, plastics, and rubber products, Wood and furniture, Papermaking and printing, Medicine and biological products) and 0 otherwise; EMPLOYEE is the logarithm of total EMPLOYEE of the companies; CASH is equal to cash holding to total assets; Year is year indicator variable. ***, **, and * denote significance at the 1%, 5%, and 10% Level, respectively.

Panel B. Three stage least square estimation of charitable contributions and bank borrowing

VARIABLES	CFLOAN		LNCONT		LCOST		LNCONT	
	Coefficient	z value	Coefficient	z value	Coefficient	z value	Coefficient	z value
LNCONT	0.00421***	10.62			-0.00358***	-6.21		
LOAN			4.578***	11.10			-1.392***	-5.30
PRIVATE	0.0109**	2.00	-0.941***	-5.27	-0.0128	-1.64	-0.866***	-5.08
PC	-0.0059	-1.03	1.134***	6.21	0.00882	1.07	1.021***	5.91
INDIR	0.135***	3.65	2.247*	1.89	-0.0920*	-1.72	3.287***	2.89
BSIZE	-0.000481	-0.44	0.0460	1.30	-0.00252	-1.61	0.0712**	2.12
SIZE	0.00527	1.43	0.756***	5.94	-0.0398***	-7.54	0.738***	6.08
GROWTH	-0.0123***	-2.68	0.0791	0.53	0.00654	1.01	0.0745	0.54
MORTGAGE	-0.0637***	-4.14			-0.0139	-0.63		
ROA	0.189***	5.23	8.000***	6.44	0.0276	0.56	8.346***	7.46
LEV	0.333***	23.97	0.583	1.26	-0.144***	-8.40	1.455***	4.03
AGE	-0.00103	-1.27	-0.0805***	-3.06	0.000557	0.48	-0.0811***	-3.24
PB	-0.000268	-0.60	-0.0516***	-3.60	0.00294***	4.88	-0.0472***	-3.66
INDHHI			2.456***	3.18			1.765**	2.55
DISPERSION			-4.148***	-6.77			-4.469***	-7.64
GPM			-0.129	-0.20			-0.861	-1.50
ENVIND			0.416***	2.70			0.448***	3.04
SALEEXP			5.880***	4.58			5.918***	4.97
EMPLOYEE			0.333***	4.99			0.345***	5.43
CASH			0.421	0.71			-0.0274	-0.05
Industry	Yes				Yes			
Year	Yes		Yes		Yes		Yes	
Constant	0.00679	0.08	-16.62***	-6.42	1.031***	8.89	-15.28***	-6.18
Observations	6056		6056		6576		6576	
Chi-squared	955.5		624.2		343.5		565.4	

CFLOAN is the CASH flow from new bank loan and other borrowings divided by the total assets; LCOST is the interest expenditure divided by the average bank loan; LNCONT is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, LNCONT is the logarithm of the amount donated plus one in a year; thus for firms that did not donate in a year, LNCONT is zero; PRIVATE is a dummy variable with a value of 0 for companies whose controlling shareholder is state and 1 otherwise; PC is an indicator variable equal to 1 if the CEO is politically connected, and 0 otherwise; INDIR is the ratio of independent directors to total number of directors; BSIZE is the number of total directors; SIZE is the logarithm of total market value; GROWTH is sales growth, measured as annual change in sales revenue, scaled by lagged sales; MORTGAGE is equal to property, plant and equipment to total assets; ROA is equal to net income divided by total assets; LEV is total debts divided by total assets; AGE is the listing years; PB is the market-to-book ratio, equal to total market value divided by total book value of shareholder equity; $INDHHI = \sum_{i=1}^n (Xi / X)^2$, where Xi is the sales revenue of firm i in the industry,

X is the total sales revenue for all firms in the industry, and n is the number of firms; DISPERSION is the sum of the squares of percentage shareholdings of the top 10 largest shareholders; GPM is equal to gross profit divided by total revenue; ENVIND is a dummy variable with a value of 1 for companies from industries of pollution (Mining, Textile, garment manufacturing, and products of leather and fur, Production and supply of electricity, steam, and tap water, Metal and non-metal, Petroleum, chemical, plastics, and rubber products, Wood and furniture, Papermaking and printing, Medicine and biological products) and 0 otherwise; SALEEXP is equal to sales expenditures to total revenue; EMPLOYEE is the logarithm of total employee of the companies; CASH is equal to CASH holding to total assets; Year is year indicator variable. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.