

# **The Expenditures on and Efficiency of Corporate Social Responsibility Activities: Evidence from Targeted Poverty Alleviation Projects**

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## Abstract:

Chinese firms are required to disclose their expenditures on targeted poverty alleviation (TPA) projects and the number of people being lifted out of poverty consequently. This unique setting provides both actual expenditures on, and the outcomes of a specific corporate social responsibility (CSR) activity, allowing us to examine the determinants of firms' CSR spending and its efficiency. We find that political pressure from the government is the main driver behind Chinese firms' TPA spending. Some of the political pressure measures weaken the relation between TPA expenditures and the number of people alleviated out of poverty, indicating a waste of resources when firms are pushed to CSR activities by the government. Firms that are more competent in their own business tend to be more efficient in the TPA projects too, suggesting that the government and interest groups should encourage these firms to actively manage their CSR activities.

Keywords: corporate social responsibility, corporate social performance, targeted poverty alleviation, China

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## Introduction

Despite extensive research on corporate social responsibility (CSR), we know little about the actual expenditures on firms' CSR activities and how efficiently these activities achieve their stated goals. Few papers study these issues because we lack accurate measures of CSR activities' input and outcome<sup>1</sup>, and it is difficult to establish direct links between the input and outcome (e.g., Brammer and Millington 2008, Moser and Martin 2012). In the U.S., CSR expenditures are typically combined with non-CSR expenditures and not reported separately (e.g., Barnea and Rubin 2010). The outcome of CSR activities, often referred as corporate social performance (CSP), is generally measured by ratings issued by various institutions which tend to disagree with each other and cannot be directly linked to specific CSR activities (e.g., Chatterji, Durand, Levine, and Touboul, 2015, Huang and Watson 2015).

In this paper, we overcome the above problems by examining Chinese firms' participation in targeted poverty alleviation (TPA) projects disclosed in their annual reports. To eliminate poverty<sup>2</sup> by 2020, Chinese President Xi Jinping proposed the notion of targeted poverty alleviation in 2013, requesting local governments to keep track of poverty-stricken villages and households and to ensure assistance reaches these targets. A key strategy of the targeted poverty alleviation movement is to encourage grassroots participation, especially the involvement of business enterprises. As an effort to motivate firms to contribute to the TPA projects, public firms in China have been required since 2016 to disclose their expenditures on TPA projects and

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<sup>1</sup> Most studies on the outcomes of CSR focus on the impacts of CSR on firms' financial performance (e.g., Margolis et al. 2009), i.e., the outcome for firms' shareholders. The outcome we examine is whether the CSR activities achieve their stated goals, i.e., the outcome for the society. More specifically, in our setting, the outcome is measured by the amount of people being lifted out of poverty when firms engage in targeted poverty alleviation projects.

<sup>2</sup> The Chinese government defines people in poverty as those earning less than 2,300 yuan (\$416) a year in 2011 purchasing price parity terms, or around \$1.10 a day. This benchmark is lower than the World Bank poverty line of \$1.90 a day, or just under \$700 a year, in 2011 purchasing price parity terms.

the amount of people lifted out of poverty as a result<sup>3</sup>. This unique setting not only provides us with the input and outcome of a particular CSR activity, it also directly links the outcome to the input, allowing us to examine the determinants of CSR expenditures and to evaluate their efficiency. Answers to these important questions could help regulators, firms and other stakeholders make more informed decisions when allocating CSR resources.

We find that political pressure is the main force driving Chinese firms' TPA expenditures. In particular, a firm spends more on TPA projects if it is owned by the state, or it has political connection, and the effect of the political connection on TPA expenditures is stronger for state-owned firms. In addition, a firm's TPA expenditures increase when it is located in a city with more poverty-stricken towns, or a province with less decentralized government, i.e., when the local government likely exert more pressure on firms to engage in TPA projects.

Besides political pressure, firm size and profitability are also positively correlated with TPA expenditures. Surprisingly, firms' slack resources, measured by the current ratio, have a negative impact on TPA spending. One possible explanation is that firms with less slack resources have stronger financing needs and may have to contribute to TPA projects to please the government for lower interest rates. In that case, this finding provides further support that Chinese firms are pushed into TPA projects under political pressure.

Turning to the efficiency of TPA projects, i.e., the relation between TPA expenditures and the number of people being lifted out of poverty, we find that state-owned firms and firms located in cities with more poverty-stricken towns are less efficient with their TPA spending. Combined

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<sup>3</sup> Firms could participate in the TPA movement in many different ways, including making donations, building plants in poverty-stricken towns and hiring local people etc. Some TPA projects may not directly lift people out of poverty (e.g., education and medical services), and hence, the number of people alleviated out of poverty could understate the outcomes of TPA projects. We discuss this topic more thoroughly in later sections.

with the finding that these firms spend more on TPA projects, the evidence suggests a waste of resources when firms engage in CSR activities under political pressure.

An interesting discovery is that firms mandated to prepare CSR reports not only spend more on TPA projects but also are more efficient with their TPA spending, lifting more people out of poverty with the same amount of TPA expenditures. The mandatory CSR reports draw public attention to firms' CSR activities, increasing the visibility of both the input (expenditures) to and output (numbers of people out of poverty) of firms' TPA projects. Our findings suggest that such visibility pushes firms to contribute more to TPA projects, and to manage these projects more efficiently.

Lastly, we find that more competent firms, i.e., firms that are more profitable than their industry peers, have higher TPA efficiency. This is consistent with firms actively managing their TPA projects and transferring their business expertise to these CSR activities.

We contribute to the CSR literature in several ways. First, we are able to obtain a precise measure of firms' expenditures on a specific CSR activity to examine determinants of firms' CSR spending. Prior literature has listed the lack of data on actual expenditures on individual CSR activities as a key limitation of archival CSR studies (e.g., Moser and Martin 2012). The mandatory disclosure of TPA expenditures allows us to provide convincing evidence on the relative importance of political factors versus economic factors in driving firms' CSR spending. Second, to our knowledge, we are the first paper to investigate the efficiency of an individual CSR activity using firm-level inputs and outputs. Few papers study whether and how efficiently firms' CSR activities achieve their stated goals because of severe difficulties in measuring the achievement of CSR activities (e.g., Brammer and Millington 2008). Most papers use ratings provided by companies such as Kinder, Lydenburg, and Domini (KLD) to measure firms' CSR

performance<sup>4</sup>. However, the ratings created by different institutions show a troublesome degree of disagreement, indicating that they might not be a great measure of the outcome of firms' CSR activities (Chatterji et al. 2015, Huang and Watson 2015). More importantly, these ratings measure multiple aspects of corporate social performance, and cannot be directly linked to expenditures on specific CSR activities, inhibiting analysis on the effectiveness and efficiency of CSR activities. In this paper, we are able to isolate and link an individual component of CSR performance (the number of people lifted out of poverty) to expenditures on a specific CSR activity (TPA projects), and show that some factors driving firms' contributions to CSR activities may actually reduce the efficiency of these activities. These findings have significant implications for policy makers and interest groups, highlighting the possibility of a waste of resources when firms are compelled to spend on CSR activities.

Our findings also highlight the importance of CSR disclosure on both the expenditures and efficiency of CSR activities. We show that mandatory CSR reporting is associated with both increased expenditures on TPA and increased efficiency. Our results complement Chen et al.'s (2018) finding that mandatory CSR disclosure improves firms' social performance at the expense of their financial performance.

We also contribute to the theory and practice of poverty alleviation, highlighting the role of business enterprises in alleviating poverty. We show that companies that are competent in their business are also more efficient in their CSR activities, i.e., the business expertise of successful companies seems to be transferrable to their CSR activities. To fully utilize companies' expertise, policy makers may want to encourage successful businesses to actively manage their CSR activities instead of passively handing over donations to some other organizations.

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<sup>4</sup> Other papers such as Chen et al. (2018) use city-level pollution data to measure firms' CSR performance, which is an indirect measure since city-level pollution is not necessarily driven by firms investigated in the paper.

In the next section, we discuss the institutional background of the TPA movement and develop hypotheses. We describe the sample construction process and relevant statistics in the “Sample construction and description” section. The research design and empirical results related to the determinants and efficiency of TPA expenditures are discussed in the “Determinants of expenditures on TPA projects” and “Relation between the number of people out of poverty and TPA expenditures” section, respectively. The last section concludes.

### **Institutional Background and Hypothesis Development**

In 2012, the Communist Party of China’s Central Committee made the solemn promise at the party’s 18<sup>th</sup> National Congress to lift all of China’s impoverished people out of poverty by 2020. Since then, poverty alleviation has been a key and recurring topic on Chinese leaders’ agenda, appearing on the priority list of every major parliamentary meeting. The State Council even designated October 17 as China’s National Poverty Alleviation Day.

In 2013, President Xi proposed targeted poverty alleviation as the essential strategy in winning the fight against poverty for the first time. Local governments are required to identify poverty-stricken villages and towns, register people living in poverty and ensure assistance reaches these people. A key characteristic of the targeted poverty alleviation strategy is to enlist concerted efforts of the whole society, especially those of business enterprises. The Chinese government has repeatedly stressed the importance of involving business enterprises in the TPA efforts (e.g., State Council of China 2014, 2015, 2018). For example, the State Council of China has urged companies to join the TPA action themed “ten-thousand firms for ten-thousand villages” in 2015 and 2018. The government has also issued various policies to encourage firms’ participation in the TPA projects, including tax benefits, government subsidy (e.g., State Council of China 2015),

and priority review of merger and acquisition activities involving companies in poverty-stricken areas (People's Bank et al. 2017).

Compared to other corporate social responsibilities, Chinese firms face greater political pressure to engage in TPA projects. First, the Chinese government has committed to a clear and firm goal to eliminate poverty by 2020, and has also set up specific annual goals for poverty alleviation (e.g., the 2019 goal is to lift 10 million people out of poverty). The central government will do everything within its power to ensure the accomplishment of these goals. Second, the central government has divided up the poverty alleviation task, and assigned each province a certain number of people they should lift out of poverty every year. The central government has been evaluating poverty alleviation performance of local governments and central-government-controlled firms annually (e.g., The State Council of China, 2016). Thus, local governments are highly motivated to push firms to participate in TPA projects. Lastly, President Xi has been personally involved in poverty reduction and has listed this issue as a priority during his speeches at the annual consultative and parliamentary sessions every year since 2012. As the “core leader” of the country, Xi’s personal attention to poverty alleviation reinforces the government’s motivation to engage firms in TPA projects. The government’s repeated calls on firms to contribute to the TPA projects mentioned above is evidence that the government transfers the pressure to achieve the stated poverty alleviation goals to firms.

The government’s strategy to involve companies in TPA projects has been successful. Since 2012, central-government-owned enterprises have contributed more than 7.5 billion yuan (about 1.1 billion US dollars) to TPA projects. Non-state-owned enterprises have also become a major player. Up to June 2018, about 55,400 private enterprises have provided targeted assistance to



62,800 villages, helping 7.6 million people in poverty (Chinese Academy of Social Sciences 2018).

To encourage public companies to participate in TPA projects, in September 2016, China Securities Regulatory Commission (CSRC), the Chinese version of the SEC, required the Shanghai Stock Exchange and Shenzhen Stock Exchange to create guidance on public firms' disclosure of their performance in poverty-alleviation related social responsibilities. In December 2016, both stock exchanges issued guidance requiring listed firms to disclose their expenditures on TPA projects and the number of people lifted out of poverty by such projects in their annual reports following a standard format.<sup>5</sup> Because people in poverty are registered and tracked by the government, the reliability of firms' disclosures is reasonably assured. The TPA setting thus provides us high quality data to examine a particular CSR activity's expenditures and efficiency. This is in sharp contrast to the CSR disclosures in the U.S., which are voluntary, raising concerns about the reliability and completeness of these disclosures as measures of inputs and outcomes of CSR activities (Moser and Martin 2012).

The above discussion on the institutional background of the TPA initiative suggests that political pressure would be a key determinant of firms' TPA expenditures. In particular, firms facing greater political pressure likely will spend more on TPA projects, which is our Hypothesis 1a (stated in alternative form).

**Hypothesis 1a (H1a):** Firms facing greater political pressure spend more on TPA projects.

Firms may also engage in TPA projects for economic reasons. Prior literature has shown that CSR activities could improve firms' reputation among consumers and investors (Mohr et al.,

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<sup>5</sup> Firms are not required to disclose their expenditures and achievements on other CSR activities.

2005; Park et al., 2017; Charkravarthy et al., 2014), which in turn could lead to better financial performance. We expect that firms with greater visibility benefit more from improved reputation and hence are more likely to spend on TPA projects for economic benefits.<sup>6</sup> We state Hypothesis 1b in alternative form.

**Hypothesis 1b (H1b):** Firms with greater visibility spend more on TPA projects.

Finally, firms with more resources can afford to spend more on TPA projects. We expect TPA expenditures to increase with resources available to firms, which leads to our Hypothesis 1c (stated in alternative form).

**Hypothesis 1c (H1c):** Firms with more resources spend more on TPA projects.

Turning to the efficiency of TPA projects, we expect political pressure to affect the relation between TPA expenditures (input) and numbers of people lifted out of poverty (output), but we do not make a prediction on its direction. On the one hand, the government's goal is to eliminate poverty and so it should be focusing on the output of the TPA projects, i.e., the number of people alleviated from poverty. This stress on the outcome could be transferred to firms under political pressure, pushing them to improve the efficiency of their TPA expenditures. On the other hand, it is much more difficult for the government to influence the output of a TPA project than the input. While the government could urge firms to spend on TPA projects, it has little control over how firms actually conduct these projects. Firms facing greater political pressure may contribute to TPA projects just to satisfy the government's demand. Without real interests in helping people out of poverty, they have no incentives to manage their TPA projects efficiently. Because

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<sup>6</sup> Firms could also obtain economic benefits when they contribute to TPA projects under political pressure. For example, firms might be able to access bank loans with more favorable terms if they please the government by contributing to the TPA projects. That is, firms could gain economically because of government interference. In that sense, H1a and H1b are not completely independent. When developing H1b, we refer to economic benefits firms would have obtained through CSR activities in a market economy where the government leaves firms alone.

political pressure could affect the efficiency of TPA projects in both directions, we state H2a in null form.

**Hypothesis 2a (H2a):** Political pressure does not affect the relation between TPA expenditures and the number of people being lifted out of poverty.

If, instead of submitting to political pressure, a firm engages in TPA projects to enhance its reputation, it has incentives to maximize the number of people lifted out of poverty for a given amount of expenditures. The more people being lifted out poverty, the greater the improvement in the firm's reputation. We expect firms with greater visibility to be more motivated to run their TPA projects efficiently because their reputational gains are greater. We state H2b in alternative form.

**Hypothesis 2b (H2b):** Firms' visibility strengthens the relation between TPA expenditures and the number of people being lifted out of poverty.

If firms are actively involved in the management of their TPA projects, we expect more competent firms to be able to lift more people out of poverty for a given amount of expenditures. Firms that are more competent in their own businesses likely have more capable managers, more advanced technologies, and/or better corporate governance. Firms could apply such advantages to their TPA projects to improve efficiency. We state H2c in alternative form.<sup>7</sup>

**Hypothesis 2c:** Firms' competency strengthens the relation between TPA expenditures and the number of people being lifted out of poverty.

### **Sample Construction and Description**

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<sup>7</sup> H2c is about firms' competence, which differs from firms' resources discussed in H1c. We have no reason to expect resources, or firms' ability to afford TPA expenditures, to affect the efficiency of their TPA projects.

Starting from 2016, public firms in China have been required to disclose their expenditures on targeted poverty alleviation projects and the number of people being lifted out of poverty as a result. The expenditures include both cash and the monetary value of noncash assets. We collect these variables, and other firm-related variables from CSMAR, a popular database on China's public firms.

Some firms participate in the TPA projects, but do not disclose their expenditures because their expenditures cannot be quantified. For example, Haixin Food (stock code 002702) participated in the TPA projects by helping transform food companies located in poor areas and purchasing their products. They were unable to disclose their TPA expenditures since such expenditures were combined with normal business expenditures. We consider the TPA expenditures to be zero if a firm does not disclose such expenditures, which might understate actual TPA expenditures.

Some firms report TPA expenditures, but do not report numbers of people lifted out poverty because their TPA projects provide nonfinancial benefits to people in poverty (e.g., education and medical services) which do not directly increase people's income. We consider the number of people alleviated out of poverty to be zero if a firm does not disclose this number. Given that firms have no incentives to hide this number, we believe that our approach is reasonable. We acknowledge that the number of people being lifted out of poverty could understate the actual contributions of TPA projects because it does not capture other benefits the TPA projects might provide.

We exclude financial firms from our analysis because their TPA expenditures consist primarily of special loans to people in poverty, which differ in nature from other firms' TPA expenditures (donations or investments).

Our sample starts from all public firms issuing annual reports in 2016 and 2017. We stop in 2017 because some control variables (e.g., political connection and the degree of provincial governments' decentralization) are only available up to 2017. After eliminating financial firms and firms without available control variables, we end up with 5,163 observations, among which 19.5%, or 1,008 firm-years, report non-zero TPA expenditures. Among firms that report positive TPA expenditures, 44.3%, or 447 firm-years, report that they have lifted some people out of poverty.

Table I Panel A shows the by year distribution of our sample firms. The percentage of firms with non-zero TPA expenditures has increased from 16.7% in 2016 to 22.2% in 2017, indicating more extensive participation in TPA projects over time. Among these firms, the percentage of companies that have lifted people out of poverty remains stable, with 44.2% and 44.4% in 2016 and 2017, respectively.

Table I Panel B shows the by industry distribution of our sample firms. The majority of our sample firms are in manufacturing. The utilities industry and the mining industry have the highest participation rate in TPA projects (both at 44.2%), followed by the transportation, warehousing and postal industry (36.8%), and the water, environment and public facilities management industry (33.8%). One possible explanation for the high participation rate is that these industries tend to be dominated by state-owned firms, which face greater political pressure to engage in TPA projects. Among firms reporting non-zero TPA spending, those in the utilities industry and the mining industry are also most likely to lift people out of poverty (71.2% and 68.4%, respectively), followed by the agriculture, forestry, husbandry and fishery industry (58.3%).

Table I Panel C shows the distribution of our sample across provinces. The more developed provinces, such as Guangdong, Zhejiang and Jiangsu, have the largest numbers of public companies. Firms in less developed provinces are more likely to engage in TPA projects. The provinces with the highest participation rate, Guizhou at 60.5%, Qinghai at 45.0%, Jiangxi at 42.4%, are all poor provinces, while Zhejiang, one of the richest provinces, has the lowest participation rate at 7.5%. This evidence is consistent with firms in poor areas facing greater pressure to engage in TPA projects. In terms of lifting people out of poverty, firms in Jilin (85.7%), Hainan (76.5%) and Hebei (75.0%) lead the way.

Table II Panel A shows the descriptive statistics of variables used in empirical analyses. Please refer to the Appendix for variable definitions. The average TPA expenditure (TPA\_EXP, in 10,000 yuan) is 973,300 yuan. Given that this sample includes firms making zero contributions to TPA projects, the average expenditure among firms that do spend on TPA projects would be much higher. Among the sample firm-years, 35.5% are owned by the state (SOE), 16.4% have political connection (PC), 27.3% have to issue CSR reports (MAND\_CSR), and 27.7% are registered in poor cities (POVERTY).

While the sample used to investigate determinants of TPA spending has 5,163 observations, the sample used to study the efficiency of TPA projects only includes firms reporting non-zero TPA expenditures, reducing the sample size to 1,008 observations. The average number of people being lifted out of poverty (NPOP, measured in thousands) is 434.

Table II Panel B shows the Pearson correlation coefficients. The univariate correlations between TPA\_EXP and explanatory variables are generally consistent with the expectation that greater political pressure and visibility of firms' CSR activities lead to more TPA spending. Specifically, state-owned firms (SOE), firms in provinces with less decentralized governments

(DECENTRAL), firms in poor cities (POVERTY), and firms required to issue CSR reports (MAND\_CSR) tend to have greater TPA expenditures. In contrast, NPOP tends to be negatively correlated with political pressure measures. In particular, firms in provinces with more decentralized governments (less political pressure) lift more people out of poverty, while firms in poor cities (more political pressure) lift less people out of poverty. MAND\_CSR is positively correlated with NPOP, suggesting that firms with mandatory CSR disclosure lift more people out of poverty.

### **Determinants of Expenditures on TPA Projects**

#### *Research design*

We use the following model to examine determinants of firms' TPA expenditures.

$$\log\text{TPA\_EXP} = \beta_0 + \beta_i \{ \text{political pressure measures: SOE, PC, POVERTY, DECENTRAL, SOE*PC, DECENTRAL*PC} \} + \beta_j \{ \text{visibility measures: MAND\_CSR, ADV, COVER, SIZE} \} + \beta_k \{ \text{firm resource measures: ROA, SLACK, LEV} \} + \text{year dummies} + \text{industry dummies} \quad (1)$$

The dependent variable is the natural log of firms' expenditures on TPA projects ( $\log\text{TPA\_EXP}$ ). Given that some firms choose not to participate in the TPA projects and  $\text{TPA\_EXP}$  could be zero, we estimate Model (1) using the Tobit regression.

Unless otherwise specified, the financial variables used in Model (1) (e.g.,  $\text{SIZE}$  and  $\text{LEV}$ ) are measured at the beginning of the year.

To test H1a, we include several proxies for political pressure. First,  $\text{SOE}$  is an indicator variable for state-owned-enterprises. Unlike private enterprises which focus on profit maximization, SOEs have the obligation to satisfy certain social responsibilities. As part of the TPA movement,

the government has been reinforcing SOEs' role in poverty alleviation, using their participation in the TPA projects as an important measure of SOEs' social performance (e.g., State Council of China, 2018). Contributing to the TPA projects has become a key political obligation for the SOEs, and an essential factor driving top executives' promotion in the political hierarchy. We thus expect SOEs to contribute more to TPA projects.

Second, we predict that firms with political connection (PC) are under greater pressure to spend on TPA projects. Following the prior literature (e.g., Faccio 2007, Fan et al. 2007), we consider a firm to have PC if its chairperson or CEO is a current or former government official, or a member of the Chinese People's Congress or the Chinese People's Political Consultative Conference (CPPCC). Prior literature shows that firms with PC are more likely to gain favorable treatments from the government through charity donations (e.g., Du and Chen, 2016), and that they contribute more to charities after natural disasters (Jia and Zhang 2018). We expect political connection (PC) to have a positive impact on TPA\_EXP.

Third, we expect firms registered in poverty-stricken cities to face greater political pressure to participate in TPA projects. Local governments in those cities are impelled by the central government to eliminate poverty, and they will in turn urge companies to contribute. We define POVERTY to be equal to one if a firm is registered in a city with more poverty-stricken towns<sup>8</sup> than the province's median, zero otherwise.

The fourth proxy for political pressure is DECENTRAL, which measures the degree of decentralization of the provincial government where a firm's headquarter is located (Cai et al.

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<sup>8</sup> A town with more than two percent of its population in poverty will be designated as a "poverty-stricken town." In China's western regions, the standard is three percent. Poverty-stricken towns are eligible for preferential policies and financial support for poverty alleviation.



2018). Local governments with higher degree of decentralization have less influence on firms, and hence *DECENTRAL* should have a negative impact on *TPA\_EXP*.

Lastly, the interactions between some of these variables are also likely to affect TPA expenditures. Specifically, we expect PC's effects on TPA expenditures to differ between SOEs and non-SOEs, and between firms in provinces with highly decentralized governments and those otherwise. When top executives in SOEs are current or former government officials, or members of the People's Congress or CPPCC (i.e.,  $PC = 1$ ), they probably have stronger ambition than their counterparts in non-SOEs to advance their careers in the political system. Given that contributions to the TPA projects are used by the government to evaluate SOEs' performance, top executives in SOEs likely have stronger personal motives to increase TPA expenditures for their own political future. Hence PC likely has a stronger effect on SOEs than non-SOEs, i.e., we expect the coefficient on  $SOE \times PC$  to be positive. We expect  $DECENTRAL \times PC$  to have a negative coefficient because PC affects firms through the influence of governments, which weakens with government decentralization.

To test H1b, we include four proxies for firm visibility in Model (1). First, *MAND\_CSR* is a dummy variable equal to one if a firm is required to issue a CSR report annually. The Shanghai Stock Exchange requires firms on its "Corporate Governance Index" (this index includes firms with the best governance practices), firms with shares listed overseas, and financial firms to issue annual CSR reports; the Shenzhen Stock Exchange has the same requirement on firms on its "Shenzhen 100 Index" (this index includes the largest firms). The disclosure mandate draws attention to these firms' CSR activities, and thus, *MAND\_CSR* is a measure of the visibility of firms' CSR activities. Firms that have to issue CSR reports could receive greater reputational gains by contributing to TPA projects. We acknowledge that firms required to issue CSR reports

are not randomly selected, so *MAND\_CSR* could capture other firm characteristics, especially firm size. We control for certain firm characteristics such as size, profitability and leverage in Model (1) so that *MAND\_CSR* should catch the effects of mandatory CSR disclosures.

While *MAND\_CSR* measures specifically the visibility of a firm's CSR activities, we include three proxies for the visibility of the firm itself. We use a firm's sales expense to sales revenue ratio in the previous year (*ADV*) to measure the importance of consumers to the firm. Firms that spend heavily on advertising have greater visibility and put more value on their reputation among consumers. Participation in TPA projects could potentially improve their reputation and lead to better financial performance. We use the natural log of the number of analysts covering a firm (*COVER*) to measure firms' visibility on the capital markets. Similar to *ADV*, firms with more analyst following could benefit more from improved reputation as a result of TPA expenditures. The last measure of visibility is the natural log of firms' total assets at the beginning of the year (*SIZE*). Larger firms receive more attention and hence their TPA expenditures could potentially bring greater reputational improvement, leading to a positive correlation between *SIZE* and TPA spending. However, firm size could be a proxy for many other things, including available resources. We would caution against interpreting the coefficient on *SIZE* alone as evidence supporting or refuting H1b.

To test H1c, we include three proxies for firms' resources in Model (1): return on assets (*ROA*), the current assets to current liabilities ratio (*SLACK*), and the total liabilities to total assets ratio (*LEV*). Firms that are more profitable, with more slacks, and lower leverage can afford to spend more on TPA projects. In addition, *SIZE* could also be a proxy for resources and is expected to have a positive coefficient.

We include year dummies in the regression to control for the time trend in firms' participation in TPA projects. We include industry dummies to control for varying CSR practices across industries.

### *Empirical results*

The estimation results of Model (1) are presented in Table III. Column (1) shows the results without interaction terms, while Column (2)-(4) include the interactions between PC and other variables.

We find robust evidence that firms facing greater political pressure spend more on TPA projects, supporting H1a. Specifically, Column (1) shows that SOE, PC, and POVERTY have positive coefficients, while DECENTRAL has a negative coefficient. That is, firms owned by the state, with political connections, located in cities with more poverty-stricken towns and provinces with less decentralization, contribute more to TPA projects.

As reported in Column (2) and (4), the interaction between SOE and PC has a significantly positive coefficient, indicating that PC has a stronger effect on TPA\_EXP for state-owned firms.

The coefficient of PC becomes insignificant after adding SOE×PC in Column (2), suggesting that the positive effect of PC on TPA\_EXP documented in Column (1) is mostly driven by SOEs.

The coefficient on DECENTRAL×PC is negative, as expected, but insignificant.

Turning to visibility measures, MAND\_CSR has a significantly positive coefficient, suggesting that firms required to issue CSR reports spend more on TPA projects. This finding complements Chen et al.'s (2018) results that the implementation of the CSR disclosure mandate leads to improved corporate social performance, but deteriorated financial performance. While Chen et

al.'s (2018) findings imply that mandatory CSR disclosures have prompted firms to spend more on CSR, we are the first to provide direct evidence that the actual expenditures on CSR indeed increase.

Though our measure of the CSR visibility produces significant results, the results regarding measures of firm visibility are mixed. *SIZE* has a positive coefficient, but neither *ADV* nor *COVER* has a significant coefficient in any of the regressions. As explained before, we hesitate to draw any solid conclusion based on *SIZE* alone given that it could be a proxy for many other factors.

Overall, we find some support for H1b. In particular, firms spend more on TPA projects when their CSR activities are highly visible; the general visibility of the firm itself seems to be irrelevant.

As to the effects of firms' resources on TPA expenditures, we find that *ROA* has a significantly positive coefficient, supporting H1c that firms with more resources can afford to contribute more to TPA projects. To the extent that *SIZE* is also a measure of resources, the positive coefficient on *SIZE* supports H1c too. *SLACK* has a significantly negative coefficient, i.e., firms with less slack resources actually contribute more to TPA projects. This seeming surprising result is consistent with Chen et al.'s (2018) finding that firms with less cash spend more on CSR. We consider this result as further evidence that Chinese firms are compelled to participate in TPA projects under the government's pressure. In particular, firms with less slacks likely have greater financing need, and prior research has shown that firms' access to bank loans could be affected by their relationship with the government (Zhang et al., 2010). These firms may contribute to the TPA projects to please the government in order to access financing.

## **Relation between the Number of People Out of Poverty and TPA Expenditures**

### *Research design*

We use the following model to examine factors affecting the efficiency of firms' TPA expenditures, i.e., the relation between the output (number of people lifted out of poverty) of and input to TPA projects (TPA expenditures).

$$\begin{aligned} \text{NPOP} = & \beta_0 + \beta_1 \log\text{TPA\_EXP} + \beta_i \{ \text{political pressure measures: SOE, PC, POVERTY,} \\ & \text{DECENTRAL, SOE*PC, DECENTRAL*PC} \} \times \log\text{TPA\_EXP} + \beta_j \{ \text{visibility measures:} \\ & \text{MAND\_CSR, ADV, COVER, SIZE} \} \times \log\text{TPA\_EXP} + \beta_k \{ \text{firm competency measure:} \\ & \text{ADJ\_ROA} \} \times \log\text{TPA\_EXP} + \text{control variables (including all variables used in Model 1, and} \\ & \text{ADJ\_ROA)} + \text{year dummies} + \text{industry dummies (2)} \end{aligned}$$

The dependent variable, NPOP, is the number of people lifted out of poverty in the current year, measured in thousands. We include all firms reporting TPA expenditures in the same year in the regression. Given that not all firms with expenditures on TPA projects are able to lift people out of poverty in the same year, NPOP could be zero. Hence, we estimate Model (2) using the Tobit regression.

It is possible that some TPA projects take a long time to become effective, so NPOP reported in the current year could be driven by TPA expenditures in previous years. Given that both the government and firms are motivated to eliminate poverty as quickly as possible, most TPA projects likely produce fast results. We believe that the potential mismatch between NPOP and current-year TPA\_EXP is unlikely a big issue, and any mismatch would bias against finding significant correlations between the two variables.

To test H2a (H2b), we examine the interactions between the political pressure measures (visibility measures) introduced in Model (1) and logTPA\_EXP.

To test H2c, we introduce a new variable to measure firms' competence. ADJ\_ROA is a firm's ROA minus the industry median ROA, and firms that are more profitable than their industry peers are considered to be more competent or capable. We expect the interaction between ADJ\_ROA and logTPA\_EXP to have a positive coefficient.

We also include in Model (2) all variables used in Model (1) plus ADJ\_ROA as control variables.

We include year dummies in the regression to control for the time trend in alleviating people out of poverty. As the battle against poverty goes on, it could be increasingly difficult to alleviate people out of poverty because people who are left are mostly mired in deep poverty.

We include industry dummies because the literature has shown that different industries have different effects on poverty alleviation. (e.g., Loayza and Daddatz 2010).

### *Empirical results*

We have 1,008 observations with non-zero TPA expenditures, which we use to estimate Model (2). The regression results are presented in Table IV. Column (1) shows the results without any interaction terms, Column (2), (3), and (4) show the results with interactions between TPA expenditures and political pressure measures, visibility measures, and competence measures, respectively. Column (5) shows the results with all interactions.

As expected, logTPA\_EXP has a significantly positive impact on NPOP in all regressions. Based on its coefficient in Column (1), when the TPA\_EXP increases from 1,000,000 yuan to

1,010,000 yuan (an increase of about \$1,500), two  $(0.5276 * (\log(101) - \log(100)) * 1,000 = 2.28)$  more people will be lifted out of poverty.

Turning to the interactions between political pressure measures and logTPA\_EXP, we find that stated-owned firms and firms in poor provinces are less efficient in their TPA spending as shown in Column (2), supporting H2a.

As to visibility measures, Column (3) shows that MAND\_CSR×logTPA\_EXP and SIZE×logTPA\_EXP have significantly positive coefficients, while COVER×logTPA\_EXP has a significantly negative coefficient. The results indicate that firms required to issue CSR reports and larger firms are more efficient in their TPA spending, supporting H2b that visibility strengthens the relation between TPA inputs and outputs. We do not have a good explanation why analysts coverage reduces the efficiency of TPA projects except that COVER is highly correlated with SIZE and MAND\_CSR, and multicollinearity could be an issue.

Column (4) shows that firms' abnormal profitability (ADJ\_ROA) has a positive impact on the relation between logTPA\_EXP and NPOP, supporting H2c that more competent firms manage their TPA projects more efficiently.

The results are similar when we include all the above interactions as presented in Column (5).

### *Robustness test*

The efficiency of firms' TPA efforts is determined, to a large extent, by the type of the TPA projects. For instance, with the same amount of expenditures, firms providing health and environmental protection service to people in poverty may not lift as many people out of poverty as those setting up plants in poor areas and providing jobs to people in poverty. To rule out the potential effects of project types on our results, we reestimate Model (2) using only firms'

expenditures on TPA projects involving industrial development and the corresponding number of people alleviated out of poverty. This is the most common type of TPA projects and has the most direct link to poverty alleviation compared to other types of TPA projects (e.g., education and health care).

The number of observations declines to 461 when we only examine firms with TPA expenditures on industrial development. Table V presents the Tobit regression results, which are generally consistent with that in Table IV. The only differences are 1) the coefficient on  $POVERTY \times \log TPA\_EXP$  is significantly negative in Table IV, but not in Table V; 2) the coefficient on  $DECENTRAL \times \log TPA\_EXP$  is not significant in Table IV, but significantly positive in Table V. The positive coefficient on  $DECENTRAL \times \log TPA\_EXP$  suggests that firms in provinces with less decentralized governments (i.e., those facing greater political pressure) are less efficient with their TPA spending. Hence, the findings in Table V, although slightly different from that in Table IV, are still consistent with H2a that political pressure leads to lower TPA efficiency. Our results are robust after controlling for TPA project types.

## **Conclusions**

We are one of the first papers to examine determinants of firms' expenditures on an individual CSR activity, and to evaluate its efficiency.

We find that Chinese firms' spending on TPA projects are mostly driven by political pressure, suggesting that Chinese firms are largely pushed by the government to contribute to the TPA projects, rather than voluntarily spend on TPA projects.

Some firms facing greater political pressure, namely, state-owned firms and firms registered in poor cities, are less efficient in lifting people out of poverty, i.e., they alleviate less people out of



poverty for the same increase in expenditures. Given that these firms actually spend more on TPA projects, valuable resources might have been wasted. Our findings suggest that when firms are pressed to engage in CSR activities, they may increase their inputs to these activities, but fail to manage these activities efficiently to achieve the stated goal. We also find that firms required to issue CSR reports and those that are more profitable than their peers are more efficient in their TPA projects.

These findings have significant policy implications. In particular, policy makers and interest groups may encourage firms to adopt a more outcome-oriented approach regarding their CSR activities, focusing more on the outputs of instead of inputs to CSR activities. Mandatory CSR reports could be an effective method for that purpose by increasing the visibility of both the inputs to and outputs of CSR activities. Firms successful in their own business should be urged to actively manage their CSR activities instead of making passive donations to other organizations.

Our paper suffers several caveats. First, our paper uses data from China, where the government plays a significant role in the economy. Our finding that political pressure drives firms' CSR activities might not be generalizable to other countries.

Second, we rely on firms' own reports for TPA expenditures and the number of people alleviated out of poverty, which could contain biases and errors. For example, sometimes it could be difficult to differentiate between normal business expenditures and TPA spending, and when firms have some discretion in the classification, they likely have incentives to inflate both their TPA expenditures and the number of people benefited.

Third, some TPA projects may provide valuable nonfinancial benefits to people, such as education and medical services, which cannot be captured by the number of people lifted out of poverty and would be left out of our efficiency analysis.

Lastly, top executives' ethics could be another determinant of TPA spending, but we do not have a good proxy for that. We leave it for future research.

## References:

- Barnea, A., and A. Rubin. 2010. Corporate social responsibility as a conflict between shareholders. *Journal of Business Ethics* 97: 71–86.
- Brammer, S. and Millington, A., 2008. Does it pay to be different? An analysis of the relationship between corporate social and financial performance. *Strategic Management Journal*, 29(12), pp.1325-1343.
- Cai, G., Zheng, G., Ma, X., and Lu, R., 2018. Decentralization and the mixed-ownership reform in China. *Economics Research* 2018 (9), pp. 99-115.
- Chatterji, A.K., Durand, R., Levine, D.I. and Touboul, S., 2016. Do ratings of firms converge? Implications for managers, investors and strategy researchers. *Strategic Management Journal*, 37(8), pp.1597-1614.
- Chen, Y.C., Hung, M. and Wang, Y., 2018. The effect of mandatory CSR disclosure on firm profitability and social externalities: Evidence from China. *Journal of Accounting and Economics*, 65(1), pp.169-190.
- China Securities Regulatory Commission (CSRC). 2016. CSRC's opinions on using the capital markets to serve in China's fight against poverty. In Chinese.
- Chinese Academy of Social Sciences, Research Center for Corporate Social Responsibility. 2018. Research Report on Chinese Enterprises' Poverty Alleviation-2018. In Chinese.
- Du, Y., and Chen, J. 2016. Political connection, charity donations and government subsidy-Evidence from listed firms with losses in China. *Research on Finance and Economics*, 42 (5), pp.4-14. In Chinese.
- Faccio, M., 2006. Politically connected firms. *American economic review*, 96(1), pp.369-386.
- Fan, J.P., Wong, T.J. and Zhang, T., 2007. Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of financial economics*, 84(2), pp.330-357.
- Jia, M., and Zhang, Z. 2010. Does political connection influence corporate philanthropy? *Management World* 2010 (4), pp. 99-113.
- Loayza, N.V. and Raddatz, C., 2010. The composition of growth matters for poverty alleviation. *Journal of development economics*, 93(1), pp.137-151.
- Margolis, J. D., H. A. Elfenbein, and J. P. Walsh. 2009. Does It Pay to Be Good. . . And Does It Matter? A Meta-Analysis of the Relationship Between Corporate Social and Financial Performance. Working paper, Washington University.
- Mohr L A , Webb D J , Harris K E . Do Consumers Expect Companies to Be Socially Responsible? The Impact of Corporate Social Responsibility on Buying Behavior[J]. *Journal of Consumer Affairs*, 2005, 35(1):45-72.

Park E , Kim K J , Kwon S J . Corporate social responsibility as a determinant of consumer loyalty: An examination of ethical standard, satisfaction, and trust[J]. *Journal of Business Research*, 2017,76, pp.8-13.

People's Bank, China Banking Regulatory Commission, China Securities Regulatory Commission, and China Banking and Insurance Regulatory Commission. 2017. Opinions on financial support to the fight against poverty in poverty-stricken areas.

State Council of China. 2014. Opinions on further motivation of all members of the society to participate in poverty alleviation. In Chinese.

State Council of China. 2015. Resolution on winning the fight against poverty. In Chinese.

State Council of China. 2016. Evaluation methods for provincial party committees and governments' poverty alleviation. In Chinese.

State Council of China. 2018. Guidance on winning the fight against poverty in three years. In Chinese.

Zhang M, Zhang S, Shen H.H.. Political Connection and the Efficiency of Credit Resource Allocation——Evidence from Chinese Private Listed Firm. *Management World*, 2010, 22(11):143-153. In Chinese.

## Appendix: Variable Definitions

Variables	
<i>NPOP</i>	Number of people lifted out of poverty, in thousands
<i>TPA_EXP</i>	Expenditures on TPA projects in 10,000 yuan
<i>logTPA_EXP</i>	Natural log of TPA_EXP
Political Pressure measures	
<i>SOE</i>	=1 if a firm is owned by the state, 0 otherwise
<i>PC</i>	=1 if the chairperson or CEO is a current or former government official, a member of the People's Congress or the Chinese People's Political Consultative Conference, 0 otherwise
<i>POVERTY</i>	=1 if a firm is registered in a city with more poverty-stricken towns than the median of the province, 0 otherwise
<i>DECENTRAL</i>	An index developed by Cai et al. (2018) which measures the decentralization degree of provincial governments in China; the index is based on principal components analysis of fiscal surplus and spending levels of provincial governments, and the local unemployment rate and marketization.
Visibility measures	
<i>MAND_CSR</i>	=1 if a firm is required to issue an annual CSR report, 0 otherwise
<i>ADV</i>	Sales expenses/sales revenue in the previous year
<i>COVER</i>	Natural log of number of analysts covering a firm
<i>SIZE</i>	Natural log of total assets at the beginning of the year
Resource measures	
<i>LEV</i>	Total liabilities/total assets, measured at the beginning of the year
<i>ROA</i>	Return on assets, or net income of the previous year/total assets at the end of the previous year
<i>SLACK</i>	Current assets/current liabilities, measured at the beginning of the year
Competence measure	
<i>ADJ_ROA</i>	ROA-industry median ROA

**Table I Sample Distribution**

Panel A : Distribution by year

Year	No. of firms (1)	No. of firms with non- zero TPA expenditures (2)	(2)/(1)	No. of firms with non-zero number of people out of poverty (4)	(4)/(2)
2016	2493	416	0.167	184	0.442
2017	2670	592	0.222	263	0.444
<b>Total</b>	5163	1008	0.195	447	0.443

Panel B: Distribution by industry sector

Industry sector	No. of firms (1)	No. of firms with non- zero TPA expenditures (2)	(2)/(1)	No. of firms with non-zero number of people out of poverty (4)	(4)/(2)
Manufacturing	3288	582	0.177	242	0.416
Information transmission, software and information services	365	31	0.085	12	0.387
Wholesale and retail	285	54	0.189	17	0.315
Real estate	240	42	0.175	11	0.262
Utilities	165	73	0.442	52	0.712
Transportation, warehousing and postal	133	49	0.368	16	0.327
Construction	131	35	0.267	17	0.486
Mining	129	57	0.442	39	0.684
Culture, sports and entertainment	81	21	0.259	12	0.571
Agriculture, forestry, husbandry and fishery	77	24	0.312	14	0.583
Leasing and business services	73	7	0.096	4	0.571
Water, environment and public facilities management	65	22	0.338	10	0.455
Scientific research and technology services	46	4	0.087	0	0
Comprehensive industry	45	1	0.022	1	1
Accommodation and catering	19	2	0.105	0	0
Health and social work	16	4	0.250	0	0
Education	5	0	0	0	0
<b>Total</b>	5163	1008	0.195	447	0.443

Table I- Continued

Panel C: Distribution by province

Province	No. of firms (1)	No. of firms with non- zero TPA expenditures (2)	(2)/(1)	No. of firms with non-zero number of people out of poverty (4)	(4)/(2)
Guangdong	774	119	0.154	61	0.513
Zhejiang	563	42	0.075	13	0.310
Jiangsu	521	61	0.117	14	0.230
Beijing	477	89	0.187	36	0.404
Shanghai	395	60	0.152	14	0.233
Shandong	296	32	0.108	9	0.281
Sichuan	188	60	0.319	28	0.467
Fujian	181	42	0.232	15	0.357
Anhui	163	41	0.252	20	0.488
Hubei	160	58	0.363	30	0.517
Hunan	145	49	0.338	23	0.469
Liaoning	135	29	0.215	13	0.448
Henan	134	47	0.351	23	0.489
Hebei	96	16	0.167	12	0.750
Xinjiang	81	26	0.321	9	0.346
Tianjin	80	10	0.125	3	0.300
Shanxi	79	21	0.266	14	0.667
Chongqing	79	12	0.152	5	0.417
Jilin	72	7	0.097	6	0.857
Jiangxi	66	28	0.424	13	0.464
Shanxi	66	27	0.409	15	0.556
Heilongjiang	65	7	0.108	1	0.143
Guangxi	60	22	0.367	11	0.500
Yunnan	57	23	0.404	15	0.652
Gansu	52	14	0.269	9	0.643
Hainan	50	17	0.340	13	0.765
Inner Mongolia	46	13	0.283	6	0.462
Guizhou	38	23	0.605	12	0.522
Ningxia	24	4	0.167	0	0.000
Qinghai	20	9	0.450	4	0.444
<b>Total</b>	<b>5163</b>	<b>1008</b>	<b>0.195</b>	<b>447</b>	<b>0.443</b>

## Table II Summary Statistics

Please refer to the Appendix for variable definitions.

### Panel A: Descriptive statistics

	N (firm-years)	Mean	Q1	Median	Q3	Std. dev.
NPOP	1008	0.434	0	0	0.093	2.205
TPA_EXP	5163	97.33	0	0	0	490
SOE	5163	0.355	0	0	1	0.479
PC	5163	0.164	0	0	0	0.371
DECENTRAL	5163	0.827	0.47	1.01	1.189	0.504
MAND_CSR	5163	0.273	0	0	1	0.446
ADV	5163	0.072	0.023	0.045	0.088	0.081
COVER	5163	1.393	0.693	1.386	2.197	0.996
LEV	5163	0.43	0.262	0.415	0.588	0.21
ROA	5163	0.033	0.011	0.031	0.059	0.055
SLACK	5163	2.299	1.126	1.649	2.61	2.161
SIZE	5163	8.426	7.561	8.281	9.121	1.254
POVERTY	5163	0.277	0	0	1	0.448
ADJ_ROA	1008	0.002	-0.016	0	0.023	0.043



Table II- Continued

Panel B: Pearson correlation coefficients

	TPA_EXP	NPOP	SOE	PC	DECENTRAL	MAND_CSR	ADV	COVER	LEV	ROA	SLACK	SIZE	POVERTY
TPA_EXP	1												
NPOP		1											
SOE	0.212***	-0.043	1										
PC	0.022	0.017	- 0.038***	1									
DECENTRAL	-0.176***	0.054*	- 0.213***	0.008	1								
MAND_CSR	0.285***	0.118***	0.277***	0.008	-0.015	1							
ADV	-0.039***	-0.033	- 0.152***	0.007	-0.026*	-0.068***	1						
COVER	0.133***	0.129***	- 0.070***	0.051***	0.105***	0.182***	0.060***	1					
LEV	0.168***	0.042	0.287***	0.001	-0.115***	0.173***	-	0.249***	1				
ROA	0.026*	0.071**	- 0.148***	-0.012	0.166***	0.037***	0.097***	0.367***	-0.379***	1			
SLACK	-0.143***	-0.077**	- 0.187***	-0.013	0.053***	-0.117***	0.155***	- 0.039***	-0.629***	0.241***	1		
SIZE	0.383***	0.242***	0.340***	0.004	-0.051***	0.460***	-	0.183***	0.492***	-0.004	- 0.330***	1	
POVERTY	0.178***	-0.056*	0.140***	0.036***	-0.699***	-0.023*	0.001	- 0.043***	0.084***	- 0.105***	- 0.059***	0.019	1

**Table III Determinants of TPA Expenditures**

The dependent variable is logTPA\_EXP. Please refer to the Appendix for variable definitions.

	(1)	(2)	(3)	(4)
SOE	1.4454*** (5.79)	1.2293*** (4.57)	1.4614*** (5.85)	1.2521*** (4.65)
PC	0.9687*** (3.19)	0.4372 (1.10)	1.5937*** (3.04)	1.0318* (1.74)
POVERTY	2.1256*** (6.72)	2.1275*** (6.73)	2.0951*** (6.61)	2.1000*** (6.63)
DECENTRAL	-1.0865*** (3.77)	-1.1067*** (3.85)	-0.9816*** (3.31)	-1.0100*** (3.41)
SOE×PC		1.2307** (2.11)		1.1892** (2.03)
DECENTRAL×PC			-0.8466 (1.46)	-0.7835 (1.34)
MAND_CSR	2.1844*** (8.42)	2.1756*** (8.40)	2.1969*** (8.46)	2.1879*** (8.44)
ADV	2.1133 (1.37)	2.0178 (1.31)	2.0845 (1.36)	1.9953 (1.30)
COVER	0.0487 (0.36)	0.0537 (0.40)	0.0569 (0.42)	0.0609 (0.45)
SIZE	1.5497*** (12.30)	1.5574*** (12.36)	1.5451*** (12.27)	1.5530*** (12.33)
LEV	-0.9542 (1.10)	-0.9512 (1.09)	-0.9315 (1.07)	-0.9308 (1.07)
ROA	5.8263** (2.21)	5.7269** (2.17)	5.7875** (2.19)	5.6956** (2.16)
SLACK	-0.2763*** (3.23)	-0.2724*** (3.19)	-0.2743*** (3.20)	-0.2706*** (3.17)
Constant	-16.5317*** (12.91)	-16.5185*** (12.91)	-16.6103*** (12.95)	-16.5929*** (12.95)
Industry Dummies	YES	YES	YES	YES
Year Dummies	YES	YES	YES	YES
Pseudo R <sup>2</sup>	0.1104	0.1108	0.1106	0.1110
N	5163	5163	5163	5163

**Table IV Efficiency of TPA Projects**

The dependent variable is NPOP. Please refer to the Appendix for variable definitions.

	(1)	(2)	(3)	(4)	(5)
	No Interactions	Political Pressure ×logTPA_EXP	Visibility ×logTPA_EXP	Competence ×logTPA_EXP	All
logTPA_EXP	0.5276*** (7.45)	0.9568*** (5.07)	0.4675*** (3.33)	0.5267*** (7.51)	1.0716*** (4.87)
SOE*logTPA_EXP		-0.4376*** (3.45)			-0.6339*** (5.06)
PC*logTPA_EXP		0.0089 (0.05)			0.0416 (0.24)
POVERTY*logTPA_EXP		-0.5725*** (3.62)			-0.3336** (2.31)
DECENTRAL*logTPA_EXP		0.1427 (1.01)			0.0876 (0.69)
SOE*PC*logTPA_EXP		0.1445 (1.14)			0.1374 (1.15)
DECENTRAL*PC*logTPA_EXP		-0.0795 (0.66)			-0.1461 (1.29)
CSR*logTPA_EXP			0.2397* (1.84)		0.2865** (2.22)
ADV*logTPA_EXP			0.8385 (1.00)		0.0322 (0.04)
COVER*logTPA_EXP			-0.1066* (1.65)		-0.1842*** (2.79)
SIZE*logTPA_EXP			0.3402*** (6.55)		0.3446*** (6.77)
ADJ_ROA*logTPA_EXP				4.2614*** (3.39)	2.7747** (2.28)
Constant	-1.1897 (1.03)	-3.7666*** (2.75)	-1.8699 (1.58)	-1.6484 (1.42)	-5.4827*** (3.85)
Control Variables	YES	YES	YES	YES	YES
Industry Dummies	YES	YES	YES	YES	YES
Year Dummies	YES	YES	YES	YES	YES
Pseudo R2	0.0574	0.0750	0.0800	0.0621	0.0998
N	1008	1008	1008	1008	1008

**Table V Efficiency of Industrial-Development-Type of TPA Projects**

The dependent variable is NPOP. Please refer to the Appendix for variable definitions.

	(1)	(2)	(3)	(4)	(5)
	No Interactions	Political Pressure ×logTPA_EXP	Visibility ×logTPA_EXP	Competence ×logTPA_EXP	All
logTPA_EXP	0.7072*** (7.91)	0.7948*** (3.14)	0.4359** (2.22)	0.6853*** (7.88)	0.6115* (1.96)
SOE*logTPA_EXP		-0.4534*** (2.62)			- 0.5767** *
PC*logTPA_EXP		-0.2572 (0.95)			-0.1713 (0.66)
POVERTY*logTPA_EXP		-0.2699 (1.23)			0.0529 (0.24)
DECENTRAL*logTPA_EXP		0.4858** (2.42)			0.5784** *
SOE*PC*logTPA_EXP		-0.0109 (0.05)			-0.0613 (0.31)
DECENTRAL*PC*logTPA_EXP		0.1673 (0.78)			0.0770 (0.38)
MAND_CSR*logTPA_EXP			0.4165** (2.37)		0.4159** (2.40)
ADV*logTPA_EXP			0.1228 (0.10)		-0.9275 (0.78)
COVER*logTPA_EXP			0.0164 (0.19)		-0.0895 (1.09)
SIZE*logTPA_EXP			0.1938*** (2.79)		0.2367** *
ADJ_ROA*logTPA_EXP				11.1219*** (5.23)	8.4995** *
Constant	-2.6941 (1.57)	-4.0320** (2.17)	-2.5951 (1.47)	-4.1445** (2.46)	- 5.6585** *
Control Variables	YES	YES	YES	YES	YES
Industry Dummies	YES	YES	YES	YES	YES
Year Dummies	YES	YES	YES	YES	YES
Pseudo R2	0.0619	0.0826	0.0746	0.0772	0.1080
N	461	461	461	461	461

