

Does Ownership Affect Corporate Social Responsibility? Evidence from Chinese Companies' Response to Targeted Poverty Alleviation

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Abstract. With the Chinese economy's development and growing wealth disparity, enhancing corporate social responsibility (CSR) has become a crucial issue for the government. Existing research has mainly focused on the impact of factors such as firm size, CEO characteristics, and industry affiliation on CSR. However, this study explores the impact of ownership on the amount of corporate donations from a different perspective. Using Difference-in-Differences (DID) approach with data from A-share listed companies between 2010 and 2020, this study analyzes how ownership affects donation amounts. The results demonstrate that ownership structure significantly affects donation amounts. The findings indicate that private enterprises are more likely to increase their donation amounts after the implementation of targeted poverty alleviation policies, with a growth rate that is 13.03% higher compared to non-private enterprises. The study also identifies firm size, the years of company listing, growth, and asset-liability ratio as factors affecting donation amounts. Furthermore, through mechanism analysis, return on assets, bank loans, and financing constraints are identified as the main mechanisms through which ownership influences donation amounts. The research has important implications for understanding how corporations can enhance their CSR performance, and government agencies can develop relevant policies to promote CSR among enterprises.

Keywords: Targeted poverty alleviation, CSR, ESG, Donation, Ownership, DID model.

1. Introduction

The United Nations introduced the term ESG for the first time in 2004 in their report "Who Cares Wins" [1], which sparked an interest in corporate well-being in society. Corporate actions related to social well-being are commonly known as Corporate Social Responsibility (CSR) [2]. The concept of ESG was once again emphasized in the 2006 report by the United Nations Principles for Responsible Investment (UNPRI) [3]. Since then, numerous non-governmental organizations and institutions have been advocating for the disclosure and evaluation of ESG information. Governments worldwide have also introduced laws, regulations, and policies related to CSR, such as the European Union's Non-Financial Reporting Directive of 2014, requiring large companies to disclose non-financial information covering CSR issues [4]. In the United States, individuals and companies can deduct charitable donations from their taxable income, with the specific percentage ranging from 10% to 50% based on tax policies and regulations. If the donation exceeds this percentage, the excess amount can be carried forward for deduction in the next five years [5]. However, the impact of these policies on promoting CSR performance among businesses varies.

The key focus for promoting CSR in society is understanding the factors that influence a company's CSR implementation. However, existing research primarily focuses on studying the impacts of CSR performance by companies. For example, research shows that CSR performance can enhance a company's market value and operational capabilities. Operational capabilities serve as an important intermediary in the relationship between CSR performance and company market value [6]. There is a positive correlation between a company's CSR performance and its stock market performance, with a greater impact on non-state-owned enterprises compared to state-owned enterprises [7]. Higher CSR performance reduces a company's default risk, and the mitigating effect increases with the term structure of default risk [8]. These studies only examine the consequences of CSR performance without investigating the factors that drive CSR implementation. Only a few

studies suggest that larger companies tend to invest more in CSR activities due to economies of scale [9]. Internal factors such as the CEO, and external factors such as industry and year, also impact CSR performance [10]. Although Mergers and acquisitions have a positive effect on a company's CSR, this improvement is not immediate [11]. Additionally, having at least three female directors on the board has been found to positively influence CSR performance, as their participation as internal directors has a positive impact [12]. However, an influential factor that has been overlooked by these studies is the nature of ownership.

Corporate ownership is a crucial factor influencing corporate philanthropic behavior, especially in emerging market countries like China. Some literature has examined the impact of ownership on the motives and effects of corporate disaster relief donations, using the Sichuan earthquake as an exogenous event [13]. Additionally, it has explored whether the amount of charitable donations and the likelihood of corporate response to catastrophic events are related to the ownership of the companies [14]. They found that companies with different ownerships exhibit differences in philanthropic donation behavior, but they did not delve into the causal relationship between them. This study builds upon the limitations of existing literature by taking a perspective on ownership and exploring the causal relationship between corporate ownership and CSR performance.

This study takes China as a case for the following reasons. Firstly, unlike the United States and Europe where private enterprises dominate, China has a more complex ownership structure with a coexistence of state-owned enterprises and private enterprises. This situation exhibits the phenomena of ownership diversification and concentration, providing an excellent opportunity to observe variations in CSR performance among companies with different ownership structures [15]. Secondly, in 2016, the Chinese State Council issued the "13th Five-Year Plan for Poverty Alleviation," which emphasizes the combination of targeted assistance and overall regional development [16]. This policy can be viewed as a quasi-natural experiment, as it provides a clear external policy shock enabling us to analyze the intervention effects of the policy on companies with different ownership structures using a Difference-in-Differences (DID) model.

This study focuses on data collected from A-share listed companies in China between 2010 and 2020. By leveraging the introduction of China's targeted poverty alleviation policy in 2016 as a quasi-natural experiment, the study explores the impact of ownership on corporate donation amounts. The results reveal that after the introduction of the targeted poverty alleviation policy, ownership significantly influences the donation amounts, with private enterprises showing a greater tendency to increase their donations. Additionally, the study reveals that the larger a company's size, its years of listing, growth rate, and the lower its asset-liability ratio, the greater its donation amounts. The robustness of the baseline regression results is examined through parallel trend analysis, adding interactive fixed effects, and changing the dependent variable. Furthermore, through mechanism analysis, this study identifies return on assets, bank loans, and financing constraints as the main mechanisms through which ownership affects the total donation amounts.

This paper makes several contributions to the existing literature. Firstly, the research establishes the causal relationship between ownership and CSR, which is a critical factor influencing a company's CSR performance. While a few studies have examined the impact of ownership on CSR using exogenous shocks such as Internationalization and the Deferred Donation Deduction Policy [17, 18], most of them have focused on correlation analysis without identifying the causal relationship. This paper employs the DID model and takes the implementation of the targeted poverty alleviation policy in 2016 as a quasi-natural experiment to explore the differences in CSR performance between private and non-private enterprises, thus establishing a causal relationship between ownership and charitable donations. Secondly, this paper identifies the heterogeneous effects of policies aimed at promoting corporate poverty alleviation. Many countries have introduced various policies to encourage corporate ESG practices [19]. In developing countries like China, the government's intervention in corporate behavior is relatively strong, such as budget constraints [20]. However, the impact of government intervention varies across different types of enterprises. Some studies have found that government intervention affects corporate ESG behavior

[21], but they lack sufficient evidence. This paper provides evidence by examining the government's call for targeted poverty alleviation in 2016, demonstrating that appropriate government intervention plays a promoting role in CSR performance, with a greater impact on private enterprises. This finding contributes to addressing the question of which policies can effectively promote CSR. Thirdly, this study enriches the literature on the motivations behind corporate charitable donations. Existing literature has analyzed the motivations for charitable donations from various perspectives, such as improved repayment ability [22] and lower equity costs [23, 24]. Studies focusing on developing countries have further found that increased charitable donations can help maintain better relationships with the government, thereby facilitating easier access to support from the government and banks [6]. This paper reveals the influence of ownership on corporate charitable donations, specifically that private enterprises, due to their ownership, significantly increase their total donation amounts. These findings enhance our understanding of the motivations behind corporate charitable donations and provide a more accurate reference for companies to make CSR-related decisions.

The remaining sections of this paper are organized as follows: Section 2 provides the institutional background of the study. Section 3 displays the research design, including data description, variable selection, and model establishment. Section 4 presents the descriptive statistics and regression results. Section 5 conducts robustness analyses of the model results, including parallel trend tests, the inclusion of interactive fixed effects, and the substitution of the dependent variable. Section 6 performs a mechanism analysis of the relationship between ownership and donation amounts. Section 7 presents the conclusions and policy implications.

2. Institutional Background

During the planned economy era, non-private enterprises hold a dominant position in China's economy. The government allocated resources and arranged production through planned economy methods, and non-private enterprises served as the main instruments for plan implementation. With the deepening of reform and opening-up, China's economic system gradually transitioned toward marketization. Non-private enterprises gradually lost their monopoly position in the market, while private enterprises experienced rapid development. However, the government still maintains significant influence over enterprises [25]. Compared to developed countries, China has a highly concentrated and diversified ownership structure, with 60.43% of listed companies being state-controlled [14], a proportion significantly higher than that of Germany (6.30%), France (5.11%), and the United Kingdom (0.08%) [26]. Nevertheless, private enterprises have played a significant role in job creation, tax contribution, and other aspects. In 2019, the private economy in China contributed over 50% of tax revenue, over 60% of GDP, over 70% of technological innovation achievements, over 80% of urban employment, and accounted for over 90% of total enterprise numbers. Private enterprises have become an indispensable force driving China's economic and social development [27]. However, mistrust and unequal treatment toward private enterprises still exist, such as discrimination in accessing seasoned equity offerings [28]. Charitable activities can help alleviate this situation. Through philanthropic behavior, private enterprises can interact more frequently with government officials, bank managers, and managers of state-owned enterprises, establishing connections with important political and economic figures [29]. Consequently, private enterprises attach great importance to CSR. In summary, in China, ownership has become an important determinant of the variations in CSR performance.

Poverty alleviation refers to a series of policies and actions aimed at improving the economic conditions and living standards of the impoverished population, enabling them to escape poverty and achieve prosperity. The Chinese government has been committed to poverty alleviation since the 1950s, shortly after the establishment of the People's Republic of China. Initiatives such as land reform were implemented, focusing on agricultural and rural development [30], to provide basic security and development opportunities for impoverished farmers. In 2016, the Chinese State

Council issued the "13th Five-Year Plan for Poverty Alleviation" to address poverty more effectively. This plan introduced the concept of targeted poverty alleviation, which involves accurately identifying impoverished individuals and households through methods such as big data analysis to understand their situations and needs, thereby maximizing the effectiveness of poverty alleviation measures [16]. The results of targeted poverty alleviation have been remarkable. By the end of 2020, despite the impact of the COVID-19 pandemic, China achieved comprehensive poverty eradication based on existing standards. This accomplishment was greatly facilitated by charitable donations and assistance from numerous businesses in response to the government's call. The implementation of targeted poverty alleviation, as an exogenous shock, is expected to have an impact on CSR because engaging in poverty alleviation efforts can contribute to improving financial performance and corporate value [31]. In particular, private enterprises may be more proactive in CSR performance to obtain political resources and enhance corporate image [32]. Thus, under the government's call during the implementation of targeted poverty alleviation, private enterprises may be more inclined to engage in charitable donations compared to non-private enterprises. Therefore, taking the year 2016, when targeted poverty alleviation was implemented, as a point of comparison allows for observing and comparing the changes in CSR between enterprises with different ownerships following the implementation of targeted poverty alleviation.

3. Research Design

3.1 Data

The data used in this study was collected from CSMAR (China Stock Market and Accounting Research Database), a significant source of financial research in China. To investigate the changes in corporate donation amounts before and after the implementation of targeted poverty alleviation in 2016, a total of 17,792 A-share listed companies was obtained from CSMAR for the period 2010 to 2020 based on the following rigorous criteria. First, companies in the financial industry were excluded due to their compliance with specialized accounting standards and tax regulations. Second, companies listed after 2010 were excluded due to their relatively small size during the sample observation period and the lack of data for the year 2010. Third, observations of all companies that had trading suspensions during the sample period were excluded. Fourth, observations with missing values for key variables were excluded. Fifth, a winsorization technique was applied to the continuous variable data by truncating extreme values at the 1st and 99th percentiles. This was done to reduce the influence of outliers on regression results. Sixth, over time, the ownership of companies may change due to factors such as equity transfers and corporate mergers. To avoid the influence of changes in ownership on regression results and ensure that the ownership remains constant during the sample observation period, this study excluded companies that experienced changes in ownership between 2010 and 2020. All data in this study were processed using Stata 15. The estimation coefficients were clustered at the industry level based on the industry classification standards of the 2012 edition of the China Securities Regulatory Commission (CSRC) to calculate the standard errors.

3.2 Empirical Model and Measurement of Variables

Targeted poverty alleviation is an exogenous event that occurs outside the corporate domain and is not influenced by internal factors, but it can significantly impact operations and financial conditions. Thus, it satisfies the exogeneity assumption of the DID model. Under the targeted poverty alleviation policy, private enterprises, aiming to reduce discrimination and gain more political resources, seize the opportunity to increase their donation amounts to a greater extent. Non-private enterprises, however, do not face such concerns, as the policy does not affect them significantly. To simplify the empirical model, this study defines private enterprises as the treatment group and non-private enterprises as the control group.

To examine the impact of corporate ownership on CSR performance, this study employs a DID model, while using the introduction of targeted poverty alleviation in 2016 as an exogenous shock. The regression model is set as follows:

$$\ln(\text{Donation}_{it}) = \beta_0 + \beta_1 * \text{Treat}_i + \beta_2 * \text{Post}_t + \beta_3 * \text{Treat}_i * \text{Post}_t + \beta_j * X_{jit} + \gamma_i + \epsilon_{it} + \gamma_t \tag{1}$$

Where *i* and *t* represent the company and year, respectively. $\ln(\text{Donation}_{it})$ represents the natural logarithm of the total amount of donation. The logarithmic transformation is applied to compress the data scale into a smaller range, reducing variability between data points and enhancing the stability of the model. Additionally, it helps approximate the distribution of social donation amounts to a normal distribution, satisfying the assumptions of the regression model. The total amount of donations is considered a significant indicator of CSR performance and serves as a quantitative measure for evaluating the CSR performance. Treat_i is a dummy variable that takes a value of 1 if the sampled company is a private enterprise and 0 otherwise. Post_t is also a dummy variable that takes a value of 1 if the observation year is before 2016, that is, before the implementation of the targeted poverty alleviation, and 0 otherwise. $\text{Treat}_i * \text{Post}_t$ is the interaction term between the two variables and is the key DID interaction of interest in the study. It takes a value of 1 if the observation year is in or after 2016 and the company is a private enterprise.

X_{jit} represents the control variables included in the regression model. Including control variables help to reduce the influence of errors caused by other factors on the regression results, improving the accuracy and reliability of the estimates. The main control variables used in this study include firm size (Size), asset-liability ratio (Lev), years of company's listing (History), firm growth (Growth), and cash asset ratio (Ca). The first control variable is the firm size (Size), measured by the natural logarithm of the total assets of the enterprise. This transformation is done to compress the scale of the variable into a smaller range and to approximate a normal distribution. Generally, larger companies tend to have higher donation amounts. Second is the Asset-liability ratio (Lev), which refers to the ratio between total liabilities and total assets. Third is the Years of the company's listing (History), which is calculated as the natural logarithm of the number of years the company has been listed on the stock market. It represents the duration of the company's presence in the stock market, calculated by subtracting the year of observation from the year of listing. Fourth is corporate growth (Growth), which measures the growth rate and scale of the company in terms of revenue over a certain period. Fifth is the cash assets ratio(Ca), which measures the proportion of a company's total assets held in cash. Companies with lower cash asset ratios may have a greater need for funds for operations and development, which may potentially reduce their total donation amounts.

After obtaining the regression results, this study further conducts a mechanism analysis to explain why ownership has an impact on donation amounts and how this impact is generated. The analysis incorporates several variables, including Return on Assets (Roa), Bank Loans (Loan), Government Grants (Grant), the WW Financing Constraint Index (WW), and the SA Financing Constraint Index (SA). In the calculation of the WW index, Divpos represents a dummy variable for cash dividend payments, where it takes a value of 1 if cash dividends are distributed in the current period, and 0 otherwise. ISG represents the industry-average sales growth rate, with a two-digit code used for the manufacturing industry and a one-digit code used for other industries based on the 2012 edition of the CSRC. SG represents the sales revenue growth rate. The definitions and calculation methods of these variables are presented in Table 1.

Table 1 Variable definition and calculation.

Variable	Definition	Calculation
Donation	The total amount of donation	The natural logarithm of the company's total donation.
Treat	Ownership	Takes a value of 1 for private enterprise, 0

		otherwise.
Post	Targeted Poverty Alleviation	Takes a value of 0 before 2016, 1 for 2016 and years after.
Size	Firm size	The natural logarithm of the company's total assets.
Lev	Asset-liability ratio	Total liabilities divided by total assets.
History	Years of company's listing	The natural logarithm of the difference between the current year and the year of IPO
Ca	Cash assets ratio	Cash assets divided by total assets.
Growth	Growth	$(\text{Total assets}_t - \text{total assets}_{t-1}) / \text{total assets}_{t-1}$
Roa	Return on assets	Net profit divided by total assets or average total assets.
Loan	Bank loans	$(\text{Short-term Loan} + \text{long-term Loan}) / \text{total assets}$
Grant	Government grants	Government grants divided by total assets.
WW	WW index	$-0.091*Ca-0.062*DivPos+0.021*Lev-0.44*Size+0.102*ISG-0.035*SG$
SA	SA index	$-0.737*Size+0.043*Size^2-0.040*Age$

In addition, γ_i represents the firm fixed effects, γ_t represents the year fixed effects, and ε_{it} represents the error term. This study employs a two-way fixed effects model, controlling for firm and year fixed effects at the same time, in order to eliminate the influence of company or time factors on the model results and more accurately assess the impact of the independent variables.

4. Empirical Results

4.1 Descriptive Statistics

Before conducting the baseline regression, this study first presents descriptive statistics to gain a better understanding of the basic characteristics of the data. The descriptive statistics results are presented in Table 2. The minimum value of donation amounts (Donation) is 0, and the maximum value is 7.864, indicating significant variations in donation amounts across different firms. The average value of ownership (Treat) is 0.434, suggesting that the majority of the sample consists of non-private enterprises. The average firm size (Size) is 22.426, indicating that the sample firms are generally large in size. The minimum value of bank loans (Loan) is 0, while the maximum value is 0.600, indicating substantial differences in borrowing levels across firms, with some firms having no loans and others having loans that account for up to 60% of total assets. The level of government grants (Grant) also exhibits significant variations, with the minimum value being 1.700E-06 and the maximum value being 0.047, reflecting diverse levels of government support received by different firms. The average, maximum, and minimum values of other variables are presented in the table as well.

Table 3 provides descriptive statistics of the dependent variables before and after the precise poverty alleviation policy, including the donation amounts of non-private enterprises before 2016, non-private enterprises in or after 2016, private enterprises before 2016, and private enterprises in or after 2016. It can be observed that the donation amounts of private enterprises from 2010 to 2020 are lower than those of non-private enterprises. This could be attributed to the fact that non-private enterprises, such as state-owned enterprises, have objectives beyond economic benefits. They primarily follow political plans and engage in activities that benefit the entire society [33], resulting in larger original donation amounts. Additionally, it can be seen that after the implementation of the policy in 2016, the average donation amounts of private enterprises increased by nearly 30%, while non-private enterprises only experienced an increase of around 10%. This preliminary analysis suggests that under the impact of targeted poverty alleviation, private enterprises significantly increased their donation amounts to a greater extent compared to non-private enterprises.

Table 2 Descriptive statistics 1.

Variable	Obs	Mean	S.d.	Min.	Max.
Donation	17792	0.797	1.943	0	7.864
Treat	17792	0.434	0.496	0	1
Post	17792	0.459	0.498	0	1
Size	17792	22.426	1.383	19.082	26.272
Lev	17792	0.476	0.216	0.057	1.062
History	17792	2.398	0.693	0	3.258
Ca	17792	0.004	0.076	-0.255	0.280
Growth	17792	0.119	0.228	-0.370	1.371
Roaa	17792	0.028	0.074	-0.427	0.205
Roab	17792	0.0318	0.070	-0.353	0.226
Roac	17792	0.032	0.071	-0.353	0.231
Loan	17792	0.179	0.143	0	0.600
Grant	17792	0.005	0.007	1.700E-06	0.047
WW	17792	-1.024	0.081	-1.263	-0.817
SA	17792	-3.778	0.260	-4.373	-3.035

Table 3 Descriptive statistics 2.

Variable	Obs	Mean	S.d.	Min.	Max.
Donation Treat=0 Post=0	5,499	0.823	1.952	0	7.864
Donation Treat=0 Post=1	4,564	0.933	2.096	0	7.864
Donation Treat=1 Post=0	4,126	0.562	1.646	0	7.864
Donation Treat=1 Post=1	3,603	9.854	2.017	0	7.864

4.2 Regression Results

Table 4 presents the regression results of the DID model. Column (1) represents the regression results without including fixed effects and control variables. It can be observed that the effect of ownership (Treat) on the donation amount is significantly negative (-0.261), indicating that private enterprises have lower donation amounts compared to non-private enterprises. These results align with the descriptive statistics presented earlier. The variable Treat*Post shows a significant positive effect (0.181) in the presence of fixed effects in column (2), and remains significant (0.187) after controlling for fixed effects and control variables in column (3). It can be observed that after experiencing the targeted poverty alleviation, private enterprises have significantly increased their donation amounts, with a growth rate higher than non-private enterprises by 13.03%. This can be attributed to the active engagement of private enterprises in enhancing CSR to gain more political resources and improve their corporate image in response to the call for targeted poverty alleviation. On the other hand, non-private enterprises, such as state-owned enterprises, have indeed increased their donation amounts after the policy implementation, but their motivation is primarily driven by political needs rather than economic benefits. Therefore, they do not significantly improve CSR performance. Additionally, the coefficients of the control variables Size, History, and Growth are all significantly positive, while the coefficient of Lev is significantly negative. This indicates that

larger size, longer listing history, higher growth rates, and lower asset-liability ratio are associated with larger donation amounts.

Table 4 Regression results: Impact on donations of Targeted Poverty Alleviation.

Variable	Donation (1)	Donation (2)	Donation (3)
Treat	-0.261** (-2.67)		
Post	0.110*** (2.96)		
Treat*Post	0.181*** (3.84)	0.187*** (4.18)	0.130*** (3.54)
Size			0.243*** (10.13)
Lev			-0.489*** (-6.91)
History			0.140** (2.33)
Ca			-0.006 (-0.05)
Growth			0.134*** (3.26)
Enterprise	No	Yes	Yes
Year	No	Yes	Yes
R-squared	0.005	0.473	0.477
Obs	17,792	17,787	17,507

Notes: Standard errors are presented in parentheses; *** p<0.01, ** p<0.05, * p<0.1

5. Robustness Test

5.1 Parallel Trend Test

To ensure the validity of the basic assumptions of the DID model, which states that the trends of the treatment and control groups should be parallel before policy implementation, without significant differences due to other factors, a parallel trend test was conducted in this study. This involved ensuring that the coefficient of Treat*Post is not significantly different from zero before the implementation of targeted poverty alleviation policy. The study employed a series of time dummy variables to examine the annual effects of targeted poverty alleviation on the donation amounts of enterprises: Before_k=1 when k years before the implementation of targeted poverty alleviation policy, k =1, 2, 3, 4, 5, 6; Current=1 when the targeted poverty alleviation policy is implemented in the current year; After_j=1 when j years after the implementation of targeted poverty alleviation policy, j =1, 2, 3, 4. During regression analysis, the study took Before₁ as the reference period and did not include it in the model to avoid collinearity with other variables.

The results of the parallel trend test for the donation amounts are shown in Figure 1. It can be observed that before the implementation of the targeted poverty alleviation policy, the coefficient of Treat*Post does not exhibit a significant difference from zero and fluctuates around zero. However, there is a slight deviation from zero for the coefficient of Treat*Post in Before₆, which may be due to other events that occurred six years before the implementation of the targeted poverty alleviation policy, affecting the donation amounts of enterprises. After the implementation of the targeted poverty alleviation policy, particularly in the second year and onwards, the coefficient shows a significant difference from zero and demonstrates a clear upward trend. Based on the test results, it can be concluded that the treatment and control groups exhibit parallel trends before the

implementation of the targeted poverty alleviation policy, meeting the requirements for using the DID model.

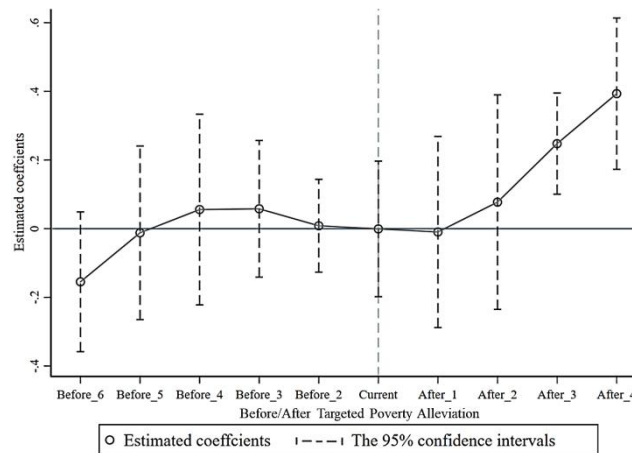


Fig 1 Parallel trend test result of donation.

5.2 Adding Interactive Fixed Effects

Interactive fixed effects refer to the effects of the interaction between two or more categorical variables on the dependent variable. To further reduce the influence of errors caused by other factors on the regression results and effectively eliminate spurious regression effects resulting from the interaction of categorical variables, this study controls for interactive fixed effects in the model. Specifically, it includes controls for industry (Industry) and year, as well as province (Province) and year, in order to eliminate the effects between different industries and years, as well as between different provinces and years.

The regression results are shown in Table 5. After controlling interactive fixed effects, the coefficient of Treat*Post remains significantly positive. This indicates that the original regression results are robust. Furthermore, the coefficients of the control variables Size, History, and Growth remain significantly positive, while the coefficient of Lev remains significantly negative. These findings are consistent with the original regression results, indicating that these variables' impact on the donation amounts is consistent with the result of the original regression.

Table 5 Regression results after adding interactive fixed effects.

Variable	Donation (1)	Donation (2)	Donation (3)
Treat*Post	0.142*** (4.22)	0.084** (2.67)	0.099*** (3.53)
Size	0.232*** (8.26)	0.231*** (8.39)	0.221*** (7.29)
Lev	-0.473*** (-5.96)	-0.485*** (-4.52)	-0.475*** (-4.01)
History	0.143** (2.40)	0.147** (2.37)	0.152** (2.38)
Ca	-0.004 (-0.04)	-0.005 (-0.05)	-0.007 (-0.07)
Growth	0.126** (2.57)	0.150** (2.86)	0.137** (2.17)
Enterprise	Yes	Yes	Yes
Year	Yes	Yes	Yes
Industry*Year	Yes	No	Yes
Province*Year	No	Yes	Yes
R-squared	0.482	0.490	0.495

Obs	17,497	17,507	17,497
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Notes: Standard errors are presented in parentheses; *** p<0.01, ** p<0.05, * p<0.1

5.3 Replacing the Dependent Variable

The dependent variable in this study is the logarithm of the donation amounts, which represents the growth rate of the donation amounts. However, this variable can only describe one aspect of CSR and may not fully reflect the overall situation of CSR. Additionally, when conducting regression analysis on a specific dependent variable, the results may not be robust if they are influenced by outliers or abnormal values. Therefore, this study further performs robustness tests by replacing the dependent variable. The replaced dependent variables are as follows: 1. Donation tendency (Tendency), which is a binary variable. A value of 1 is assigned if the enterprise made a donation in the current year, and 0 otherwise. 2. Job Creation (Job), which represents whether the enterprise has implemented policies or measures to promote job creation. If the enterprise has already adopted and implemented policies or measures to promote employment, it is assigned 1. Otherwise, it is assigned 0.

The regression results, as shown in Table 6, indicate that after replacing the dependent variable, the coefficients of Treat*Post remain significantly positive. This suggests that after targeted poverty alleviation, private enterprises show a significant tendency to donate and respond to the government's policy by implementing measures such as job creation. It indicates that they do pay more attention to strengthening CSR performance. The results in Table 6 demonstrate the robustness of the regression findings again even after replacing the dependent variable.

Table 6 Regression results after replacing the dependent variable.

Variable	Tendency	Job
Treat*Post	0.034** (2.36)	0.028** (2.78)
Size	0.046** (2.92)	0.040*** (8.14)
Lev	0.120 (1.35)	-0.096*** (-9.83)
History	-0.020 (-0.41)	0.028** (2.84)
Ca	0.105* (1.83)	-0.006 (-0.32)
Growth	0.049 (1.36)	0.017* (1.93)
Enterprise	Yes	Yes
Year	Yes	Yes
R-squared	0.432	0.448
Obs	17,507	5,862

Notes: Standard errors are presented in parentheses; *** p<0.01, ** p<0.05, * p<0.1

6. Mechanism Analysis

The experimental results indicate a significant positive impact of targeted poverty alleviation and the ownership of private enterprises on the donation amounts. Furthermore, this study aims to explore the mechanisms through which this influence is realized and further investigate the intrinsic mechanisms. The selected mechanism variables in this study include Return on Assets (ROA), Government Grants (Grant), Bank Loans (Loan), Financing Constraints measured by, WW index(WW) and SA index(SA). The first mechanism variable is Return on Assets (ROA), which measures the return on investment for enterprises and reflects asset utilization efficiency and profitability. It can be represented in three forms: ROAa, ROAb, and ROAc. ROAa represents the

ratio of net profit to shareholders' equity, while ROAb and ROAc represent the ratio of net profit to average shareholders' equity. However, their calculation methods for average shareholders' equity differ: The former is (ending total assets + beginning total assets) / 2, while the latter is (ending total assets + ending total assets of the previous year) / 2. The second mechanism variable is Government Grants (Grant), which refers to funds directly or indirectly provided by the government to enterprises. Typically, larger enterprises receive more government grants. To eliminate the impact of enterprise size on government grants, this study divides government grants by total assets. The third mechanism variable is Bank Loans (Loan), which represents the funds borrowed by enterprises from banks after approval. It is calculated as the sum of short-term loans and long-term loans. Similarly, the bank loans used in this study are divided by firm size. The last two mechanism variables are Financing Constraints, which refer to the restrictions and obstacles faced by enterprises when obtaining external financing. They are mainly measured by the WW index (WW) and SA index (SA). When regressing on these mechanism variables, three control variables are included: the logarithm of enterprise size (Size), company leverage (Lev), and company growth (Growth). However, Growth is not included when regressing on government grants, and Lev is not included when regressing on bank loans. Additionally, company fixed effects, year fixed effects, and industry fixed effects are included [34, 35].

The analysis results are shown in Table 7. When Roaa, Roab, and Roac are used as mechanism variables, the coefficients of Treat*Post are all significantly negative. When government grants (Grant) are used as a mechanism variable, the coefficient of Treat*Post is not significant. When bank loans (Loan) are used as a mechanism variable, the coefficient of Treat*Post is significantly positive, indicating that ownership may promote donation amounts through facilitating bank borrowing. Lastly, when the WW index (WW) is used as a mechanism variable, the coefficient is significantly negative, while the SA index (SA) has a significantly positive coefficient. Therefore, it can be concluded that Return on Assets, bank loans, and financing constraints act as mechanisms in the relationship between ownership and donation amounts, explaining part of the impact of ownership on donation amounts.

Table 7 Regression results for mechanism analysis.

Variable	Roaa	Roab	Roac	Grant	Loan	WW	SA
Treat*Post	-0.014*** (-4.54)	-0.012*** (-4.40)	-0.012*** (-4.58)	-0.0002 (-0.45)	0.023*** (4.28)	0.010*** (8.90)	-0.043*** (-5.88)
Size	0.010*** (5.09)	0.008*** (4.44)	0.009*** (4.87)	-0.002*** (-5.16)	0.033*** (7.92)	-0.057*** (-44.48)	-0.014 (-1.20)
Lev	-0.165*** (-19.07)	-0.155*** (-17.96)	-0.155*** (-17.54)	0.002* (1.77)		0.047*** (8.78)	0.020 (0.96)
Growth	0.067*** (10.79)	0.076*** (11.82)	0.075*** (11.81)		-0.003 (-0.26)	-0.029*** (-12.23)	-0.034*** (-4.88)
Enterprise	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.474	0.520	0.518	0.504	0.735	0.826	0.955
Obs	15,095	15,095	15,095	13,999	14,408	16,056	17,507

Notes: Standard errors are presented in parentheses; *** p<0.01, ** p<0.05, * p<0.1

7. Conclusion and Policy Implications

Studying the factors that influence CSR performance is of great importance. Previous research has indicated that company size, CEO characteristics, and industry affiliation affect corporate donation amounts. However, there has been limited research on the effect of ownership on donation amounts. Some studies that have focused on ownership mainly examine the correlation between ownership and donation amounts, without conducting in-depth analyses of the causal relationship

between them. This study utilized DID approach and panel data from A-share listed companies for the period 2010-2020 to examine the impact of ownership on the corporate donation amounts. The research findings revealed that compared to non-private enterprises, private enterprises exhibited a larger increase in the total amount of donations in response to the call for targeted poverty alleviation. This may be attributed to private enterprises' motivations to acquire political resources and enhance their corporate image. Furthermore, the study also found that donation amounts are associated with size, the years of the company's listing, growth, and asset-liability ratio. Additionally, mechanism analysis revealed that return on assets, bank loans, and financing constraints play a mediating role in the relationship between ownership and donation amounts. In China, private enterprises play a significant role in promoting employment, generating tax revenue, and other areas. Similarly, many countries, including the United States, have a majority share of private enterprises, which form the backbone of market operations. The research findings of this study can benefit all countries by offering a better understanding of the motives and patterns of donation amounts by private enterprises. This understanding can help in formulating targeted policies to promote CSR, developing policies related to charity to encourage corporate donations, providing opportunities for private enterprises to contribute; Promoting and recognizing corporate philanthropy through media; Actively collaborating with private enterprises to advance social welfare, while strengthening bilateral relationships and so on.

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