



# Will Companies' Participation in Targeted Poverty Alleviation Affect Their Default Risk?

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**Abstract.** Targeted poverty alleviation is a national strategy. Targeted poverty alleviation for enterprises is important for winning the battle against poverty. This article uses the non-financial listed companies participating in targeted poverty alleviation in the 2016–2020 A-share market as a sample to study the impact of targeted poverty alleviation participation levels on corporate default risks. The study found that this participation in targeted poverty alleviation can bring more investment opportunities and financing convenience to companies, and ease external financing constraints through reputation effects, thereby reducing the company's default risk. This paper studies the impact and mechanism of corporate targeted poverty alleviation on corporate default risk. Empirical evidence shows that companies participating in targeted poverty alleviation will receive government policy preferences, including fiscal and financial policies, which will help reduce corporate default risks. A “win-win” result of social responsibility and risk aversion.

**Keywords:** targeted poverty alleviation · default risk · merton · government subsidies

## 1 Introduction

In 2013, the CPC Central Committee put forward the concept of “targeted poverty alleviation”, innovated the poverty alleviation mechanism, and started the battle against poverty. Since the 18th National Congress of the Communist Party of China, China has placed poverty alleviation and development into the “four comprehensive” strategic layout and the “five in one” overall layout. In November 2015, the Central Committee of the Communist Party of China and the State Council issued the Decision of the Central Committee of the Communist Party of China and the State Council on Winning the Battle of Poverty Alleviation. In November 2016, the State Council issued the “Thirteenth Five-Year” Poverty Alleviation Plan, which requires state-owned enterprises to strengthen their responsibility for assistance and encourages and guides private enterprises and other ownership enterprises to participate in poverty alleviation work. On February 25, 2021, at

the National Poverty Alleviation Summary and Commendation Conference, Xi Jinping announced that my country's poverty alleviation battle had achieved a comprehensive victory. Under the current standard, all 98.99 million rural poor people have been lifted out of poverty, 832 poor counties have been removed, and 128,000 poor villages have been removed. As a result, the overall regional poverty has been resolved, and the arduous task of eliminating absolute poverty has been completed.

In this brutal battle against poverty, different companies have given full play to their professional advantages and made outstanding contributions to the overall victory of the fight against poverty.

Compared with previous studies, this article attempts to contribute in the following aspects. First, this article starts from the precise poverty alleviation of companies and explains how it affects the default risk of companies. Most previous studies have studied the linkage relationship between precise poverty alleviation and alleviation of financing constraints, and the alleviation of financing constraints has been used as an intermediary factor to study precise participation. There is very little research on the relationship between poverty alleviation level and default risk at home and abroad. Therefore, this article adopts a new perspective to study the impact of participation in targeted poverty alleviation on the risk of corporate default, and provides new ideas for corporate management and development.

Second, this article uses the listed companies participating in precision poverty alleviation in China's A-share market from 2016 to 2020 as the research object, and uses the Merton method to calculate. The relationship between the level of precision poverty alleviation participation and corporate default risk, and the calculation of corporate default risk uses the Naïve model proposed by Bharath and Shumway [1] to estimate the probability of default (EDF) as a substitute variable for the default risk. This indicator can more objectively reflect the default probability of the company in the next period, and it is a good measure of the company's default risk.

## 2 Theoretical Analysis and Research Hypothesis

Based on the existing research and related theory, this paper argues that companies participate in precise poverty alleviation as "the government, companies, social coordinated advance" mode of a new type of poverty alleviation, the impact on the enterprise risk of default heuristics. Therefore, on the basis of relevant theories, this paper puts forward risk increase and risk reduction. Among them, risk reduction mainly affects the default risk of companies from the following three aspects.

### 2.1 Political Connections

Enterprises' participation in targeted poverty alleviation can enhance their ability to obtain government resources. China's political system determines that all levels of government in China are strong governments, which play a leading role in the economy [2]. The government has the right to allocate essential resources and the right to administrative approval and management of enterprises' business activities [3]. Enterprises with

political connections obtain more bank loans and longer loan terms than those without political connections [4].

Myers & Majluf (1984) pointed out that due to information asymmetry, external investors would lower the price of purchasing risky securities, thus increasing the cost of external financing and causing the cost difference between internal and external funds. An important reason for the formation of default risk is the information asymmetry in the credit market. There is a lot of information asymmetry in the bank credit market, which is manifested as adverse selection before the transaction and moral hazard after the transaction. When the information asymmetry of a company is low, the financing cost is low, and the company can obtain abundant funds. Therefore, by participating in targeted poverty alleviation activities, enterprises can play a positive role in "information communication" with the outside world and establish a good corporate image. Moreover, these activities can help reduce the risk of default caused by information asymmetry between the outside world and enterprises.

## 2.2 Resource Dependence

The Resource Dependence Theory points out that companies cannot create all the resources needed for their development by themselves, and the improvement of enterprise performance is closely related to the acquisition of external resources. In contrast, the participation of enterprises in targeted poverty alleviation provides them with good opportunities to obtain external resources. Enterprises participating in targeted poverty alleviation can get land development rights, the right to use poverty alleviation funds, labor resources, etc. These resources can more effectively ensure the quality of industrial poverty alleviation and enterprise operation, further promote enterprise performance improvement, and thus reduce the possibility of enterprise default [5]. In addition, corporate social responsibility can also produce intangible resources, such as influencing and persuading stakeholders, improving brand image and corporate reputation, expanding market share, enhancing staff efficiency, and promoting the formation of good cooperation or benign competition between enterprises [6]. Therefore, enterprises participating in targeted poverty alleviation can obtain many tangible and intangible resources to help improve enterprise performance and reduce enterprise default risk. Based on the above risk reduction theory, this paper proposes hypotheses:

Hypothesis 1: The participation of enterprises in targeted poverty alleviation will reduce the default risk of companies, and the greater the participation, the greater the effect of default risk reduction.

In addition, some studies believe that if corporate social responsibility is used as an "instrument" by self-interested management, it will bring extreme consequences to the enterprise, leading to the collapse or collapse of the enterprise stock price [7]. Therefore, this paper proposes the hypothesis:

Hypothesis 2: The participation of enterprises in targeted poverty alleviation will increase the default risk of enterprises.

### 3 Research Design

#### 3.1 Sample Selection and Data Sources

Since the company’s annual report disclosed targeted poverty alleviation information in 2016, and China has achieved poverty alleviation in 2020, this article takes the listed companies that participated in targeted poverty alleviation in China’s A-share market from 2016 to 2020 the research object. The original sample is processed as follows: (1) Considering the particularity of financial statements of financial and insurance companies, this type of company is eliminated; (2) The sample with missing precise poverty alleviation data is eliminated; (3) The sample with missing key financial data is eliminated. Three thousand six hundred thirty-three company annual observations were obtained; (4) In order to eliminate the influence of outliers, all continuous variables in this paper are processed by Winsorize up and down 1%. The company’s precise poverty alleviation data comes from the CSMAR database.

#### 3.2 Variable Definitions

In order to test the relationship between the level of participation of enterprises in precise poverty alleviation and the risk of enterprise default, this paper sets the model as follows:

$$Default_{it} = \alpha_0 + \beta TPA_{it} + \gamma X_{it} + \delta_t + \varphi_i + \varepsilon_{it}$$

Among them,  $Default_{it}$  is the default risk of enterprise  $i$  in year  $t$ . This article uses the Merton method to calculate;  $TPA_{it}$  represents the level of participation in precise poverty alleviation of enterprise  $i$  in year  $t$ , measured by the ratio of the sum of poverty alleviation funds and material discounts to the company’s total assets;  $X_{it}$  represents the control variable;  $\delta_t$  and  $\varphi_i$  are firm fixed effects and year fixed effects, respectively. This article focuses on the coefficient of the core variable  $TPA_{it}$ . If  $\beta$  is significantly negative, it means that the company’s participation in targeted poverty alleviation can dramatically reduce its default risk, so the hypothesis in this article is valid.

##### (1) The Measurement of Enterprise Default Risk

This paper uses the Naïve model Bharath and Shumway (2008) proposed to estimate the probability of default (EDF) as a substitute variable for the default risk. This indicator can objectively reflect the default probability of the company in the next period, and it is a good measure of the default risk of the company. Among them, the data required to calculate the default risk of the enterprise comes from the CSMAR database, and the calculation formula for the default risk is as follows:

$$DD_{it} = \frac{\log\left(\frac{Equity_{it} + Debt_{it}}{Debt_{it}}\right) + (r_{it-1} - \sigma_{V_{it}}^2/2) \times T_{it}}{\sigma_{V_{it}}^2 \times \sqrt{T_{it}}}$$

Among them,  $DD_{it}$  represents the distance to default;  $Equity_{it}$  represents the total value of the company, which is the total number of shares issued and the market price at the end of the year.

The product of  $Debt_{it}$  is the face value of the company's debt, which is the sum of the company's year-end short-term liabilities and one-half of the long-term year-end liabilities;  $r_{it-1}$  is the company's annual rate of return for the next year. It is obtained from the company's monthly stock return rate in the previous year;  $T_{it}$  is set to 1 year in the formula;  $\sigma_{Vit}$  is the estimated amount of the company's asset volatility, calculated by  $\sigma_{Eit} \cdot \sigma_{Eit}$  is the volatility of the stock return.  $\sigma_{Vit}$  is calculated as follows:

$$\begin{aligned} \sigma_{Vit} = & \frac{Equity_{it}}{Equity_{it} + Debt_{it}} \times \sigma_{Eit} \\ & + \frac{Debt_{it}}{Equity_{it} + Debt_{it}} \times (0.05 + 0.25 \times \sigma_{Eit}) \end{aligned}$$

Based on the above formula, the default risk distance  $DD_{it}$  can be calculated, and then the enterprise default probability can be obtained through the standard cumulative normal distribution function, as shown below:

$$EDF_{it} = Normal(-DD_{it})$$

## (2) Measurement of the Level of Participation in Precision Poverty Alleviation

Drawing lessons from Zhen et al. [8], methods for measuring the level of participation in targeted poverty alleviation by enterprises, the sum of corporate poverty alleviation funds and material discounts as a share of the current year's operating income is used to measure the level of participation in targeted poverty alleviation. The companies are more comparable. In order to avoid the value of this indicator being too small, this article refers to the practice of Zhu et al. [9] and multiplies it by 100, which does not change the data structure.

### 3.3 Control Variable

Refer to the existing literature on corporate risk research [10] to select control variables; meanwhile, this paper controls the annual effect (*Year*) and personal effect (*Company*) to eliminate the impact of yearly and individual differences. See Table 1 for the names and definitions of all variables.

## 4 Empirical Results and Analysis

### 4.1 Basic Regression

Table 2 reports the regression results of the impact of companies' precise poverty alleviation participation levels on corporate default risks. Columns (1), (2), and (3) all control individual corporate and annual fixed effects, and use robust standard errors to make corrections. Among them, column (1) is the regression result after excluding the control variables; column (2) is the regression result after adding the control variables; column (3) controls the industry's individual and annual fixed effects based on Fixed effects; column (4) controls the interactive fixed effects of the industry and the year based on controlling

**Table 1.** Definition of main variables

Variable type	Variable name	Variable meaning	Variable definitions
Explained variable	<i>Default</i>	Corporate default risk	Calculated by Merton method
Explanatory variables	<i>TPA</i>	Level of participation in targeted poverty alleviation	(Poverty alleviation fund + material discount) *100/total assets
Control variable	<i>Size</i>	Company size	The natural logarithm of the company's total assets
	<i>ROA</i>	Company achievements	The ratio of the annual net profit of the listed company to the total asset balance
	<i>Age</i>	Company age	Years of listing
	<i>Growth</i>	Growth	Operating income growth rate
	<i>Leverage</i>	Assets and liabilities	The ratio of company liabilities to assets
	<i>Fixed</i>	Proportion of tangible assets	The ratio of net fixed assets to total assets
	<i>Libpay</i>	Solvency	Interest coverage ratio
	<i>Yretnd</i>	Stock performance	Annual return on individual stocks
	<i>State</i>	Nature of property rights	Non-state-owned enterprises take 1, otherwise, take 0
	<i>Top</i>	The largest shareholder's shareholding ratio	Shareholding ratio of the largest shareholder
	<i>Holdhi</i>	The top ten shareholders' shareholding dispersion	Herfindahl Index held by the top ten shareholders
<i>Indep</i>	Proportion of independent directors	The ratio of the number of independent directors to the number of directors	

the individual fixed effects of enterprises. The empirical results in Table 2 show that the estimated coefficients of *TPA* for companies' targeted poverty alleviation participation levels are significantly negative at the 1% level, indicating that companies' participation in targeted poverty alleviation can considerably reduce the company's default risk. This supports the hypothesis in this article that the higher the level of corporate targeted poverty alleviation participation, The lower the risk of corporate default.

**Table 2.** The level of participation of enterprises in targeted poverty alleviation and the risk of enterprise default

	(1)	(2)	(3)	(4)
	Default	Default	Default	Default
<i>TPA</i>	-9.79*** (-8.34)	-7.55*** (-6.70)	-6.78*** (-3.77)	-6.44*** (-2.91)
<i>Size</i>		0.02** (-2.45)	-0.04 (-0.07)	-0.12 (-0.21)
<i>ROA</i>		-0.22** (-2.28)	-2.20** (-2.08)	-2.34** (2.20)
<i>Age</i>		0.95*** (2.75)	0.95* (1.69)	0.92* (1.65)
<i>Growth</i>		-0.97 (-1.47)	-0.05** (-2.22)	-0.03*** (-3.80)
<i>Leverage</i>		-0.03*** (-5.89)	-0.28*** (-4.64)	-0.39*** (-2.58)
<i>Fixed</i>		0.17*** (3.99)	1.81 (0.85)	1.64 (0.72)
<i>Libpay</i>		0.51*** (4.39)	0.00*** (2.92)	0.00** (1.92)
<i>Yretd</i>		-0.35** (2.12)	-0.44*** (-2.66)	-0.43** (-2.57)
<i>State</i>		0.03 (1.35)	0.26*** (4.22)	0.01** (1.72)
<i>Top</i>		0.47** (2.02)	4.70** (2.46)	3.99** (2.18)
<i>Holdhi</i>		-0.21*** (-3.27)	-0.24 (-1.22)	-0.16** (-2.15)
<i>Indep</i>		-2.33 (-1.10)	-2.96*** (-3.90)	-3.07*** (-3.94)
<i>Constant</i>	-0.10*** (-4.95)	-1.42*** (-3.69)	-0.17*** (-2.98)	-0.12*** (-3.66)
Company/Year effect	Control	Control	Control	Control
Number of samples	3663	3663	3663	3663

(continued)

**Table 2.** (continued)

	(1)	(2)	(3)	(4)
	Default	Default	Default	Default
Adjusted R2	0.63	0.55	0.33	0.3

Note: \*\*\*, \*\*, and \* represent the significance level of 1%, 5%, and 10%, respectively; the t-value of the two-sided test corresponding to the robust standard error is in the brackets. The following tables are the same

**4.2 Endogenous Problems**

In the above model, in order to alleviate the endogenous problems caused by missing variables, measurement errors, or reverse causality, this paper further adopts the instrumental variable method.

Drawing on the ideas of Deng et al. [11], this article uses the number of companies in the same industry in the province where the company is registered to participate in poverty alleviation as an instrumental variable (*IV*). Deng et al. pointed out that the number of companies participating in poverty alleviation in the same industry in the same province will affect whether a company in targeted poverty alleviation. However, it has no direct impact on the financing constraints of the company. At the same time, because the financing constraints of the company directly affect the company’s default risk, it can be considered. This instrumental variable satisfies the requirements of relevance and exogeneity.

It can be seen that the DWH statistic is 35.94, and the p-value is 0.00, which indicates that the TPA in this model has an endogenous problem. Table 4 reports the results of the two-stage regression of the instrumental variables, in which the first stage is listed as the regression result, and the second stage is listed in column (2). The first-stage regression results show that the estimated value of the *IV* coefficient is significantly positive at the 1% level. It can be seen that the more companies in the same province in the same industry participate in poverty alleviation, the higher the level of participation in targeted poverty alleviation by enterprises, which verifies the relevant setting of instrumental variables. The regression results of the second stage show that the coefficient of *TPA* is significantly negative at the 1% level. This indicates that after mitigating the potential endogeneity, the conclusion of this paper is still valid, that is, companies participating in targeted poverty alleviation can significantly reduce the company’s default risk. In addition, this article also tested weak instrumental variables, and the results showed that there is no weak instrumental variable problem (Table 3).

**4.3 Robustness Test**

(1) Replacement of measurement indicators for the level of participation in targeted poverty alleviation by enterprises.

① This article refers to the method of Yu et al. [12] and uses (poverty alleviation funds \* 100/total assets) to measure the level of participation in precision

**Table 3.** Instrumental variable method

	(1)	(2)
	TPA	Default
<i>TPA</i>		-7.38***
		(-5.14)
<i>IV</i>	0.10***	
	(6.00)	
Control variables	Control	Control
Company/Year effect	Control	Control
Number of samples	3663	3663

poverty alleviation, which may be more accurate and comparable. Table 4 reports the robustness test results, and column (1) is the regression result of this part.

- ② Referring to the method of Song et al. [13], the natural logarithm of the sum of capital investment and material investment in targeted poverty alleviation is taken as the absolute participation level of enterprises in precision poverty alleviation. Column (2) is the regression result of this part.
- (2) Replacement of corporate default risk metrics

This article refers to the practice of Xu et al. [14], setting the dummy variable *ST* to indicate the risk of corporate default. When the company is an *ST* (or *ST\**) company in the year, *ST* is set to 1, which means that the risk of corporate default is high; otherwise, *ST* is set to 0, which means The company's default risk is relatively small. Column (3) is the regression result of this part.

### (3) Change the tailing range

In order to eliminate the influence of outliers, all continuous variables are treated with the so-called upper and lower 1%. However, in order to further verify the robustness of the previous conclusions, this article will carry out bilateral tailing treatment on each variable at 5%. Column (4) is the regression result of this part.

It can be seen from the result that *TPA* is significantly negative at the 1% level, and the conclusion of this article is still robust.

## 5 Mechanism Analysis

According to the existing theoretical analysis and existing research, the targeted poverty alleviation of companies may reduce the enterprise's default risk through resource effects and improvement of the investment environment.

**Table 4.** Robustness test

	(1)	(2)	(3)	(4)
	Default	Default	Default	Default
<i>TPA</i>	−5.02*** (−5.19)	−1.19*** (−6.03)	−0.43*** (−3.23)	−7.26*** (−6.63)
<i>Constant</i>	−0.50*** (−3.11)	−1.30*** (−5.53)	−0.33*** (−3.32)	−0.14*** (−5.98)
Company/Year effect	Control	Control	Control	Control
Number of samples	3663	3663	3663	3663
Adjusted R2	0.41	0.35	0.43	0.32

### 5.1 Targeted Poverty Alleviation of Enterprises, Investment Opportunities and Risks of Enterprise Default

Previous studies have found that corporate charitable donations may improve the investment environment of companies, thereby affecting the risk of corporate default [15]. At the same time, such charitable donations can bring financing convenience and investment opportunities to companies. Economic aspects.

Table 5 shows the test results of the mechanism analysis. Column (1) is the test result of *DeltaInvest* on *TPA*. Drawing lessons from Dai et al., the proportion of new investment expenditures in poverty alleviation in the year's total assets was used to measure corporate investment opportunities. It can be seen from the table that the coefficient of the regression result of *DeltaInvest* on *TPA* is significantly positive at the 1% level, indicating that the active participation of enterprises in targeted poverty alleviation has expanded investment opportunities and improved the investment environment to a certain extent.

### 5.2 Targeted Poverty Alleviation for Enterprises, Government Subsidies and the Risk of Enterprise Default

According to previous studies, corporate social responsibility behavior can be used to seek mutual benefits between financial resources and the government and help companies obtain more bank credit [16]. At the same time, corporate charitable donations can help companies receive government subsidies [17]. It can be expected that, as the continuation and development of charitable donations in the era of poverty alleviation, the targeted poverty alleviation of enterprises will also help companies to obtain government subsidies.

Column (2) is the test result of government subsidy (*Subsidy*). Learning from the practice of Luo et al. [18], the natural logarithm of the government subsidies obtained by companies in poverty alleviation year, including financial allocations, financial discounts, tax rebates, social responsibility awards and other projects. *Subsidy*'s regression coefficient for *TPA* is significantly positive at the 1% level, indicating that enterprises' active participation in targeted poverty alleviation can obtain more government subsidies to a certain extent.

**Table 5.** Mechanism analysis

	(1)	(2)
	DeltaInvest	Subsidy
<i>TPA</i>	3.45*** (4.06)	2.71*** (7.41)
<i>Constant</i>	-0.42*** (-3.69)	-0.42*** (-3.69)
Company/Year effect	Control	Control
Number of samples	3663	3663
Adjusted R2	0.84	0.72

## 6 Heterogeneity Analysis

### 6.1 Analysis of Heterogeneity Based on Types of Poverty Alleviation

Existing research shows that there are nine main types of targeted poverty alleviation. Among them, industrial poverty alleviation accounts for the largest proportion of all poverty alleviation methods and invests the most funds. It can not only contribute to my country's poverty alleviation cause, but also bring industrial development and returns to the company. Therefore, this article refers to the practice of Cao et al. [19] and divides targeted poverty alleviation into industrial poverty alleviation and non-industrial poverty alleviation for heterogeneity analysis.

This article uses cross-products to analyze the heterogeneity, in which the dummy variable of poverty alleviation type is *IPV*, industrial poverty alleviation is 1, and non-industrial poverty alleviation is 0. The regression results are shown in column (1) of Table 6. Whether it is industrial poverty alleviation or not, enterprises participating in targeted poverty alleviation can reduce their default risk. Since the regression coefficient of  $TPA \times IPV$  is significantly negative at the 1% level, it indicates that for enterprises participating in industrial poverty alleviation, the reduction in default risk is greater, and the effect is more obvious.

### 6.2 Analysis of Heterogeneity Based on Regional Poverty Alleviation Pressure

To achieve the goal of alleviating poverty in 2020, governments in different regions are facing different pressures, and areas with a large number of poor people are under greater pressure for poverty alleviation. Concerning the practice of Feng et al. [20], when a listed company is located in an area with greater poverty alleviation pressure, participating in targeted poverty alleviation can meet the expectations of local governments, banks and other stakeholders for corporate social responsibility, thereby gaining more resource support and support. Market recognition. Poverty alleviation pressure is measured by the proportion of the rural poor population in the total population in the province where the company is registered in the year. When the poverty population in the province where

the company is located is above the median of the provinces in the year, it is considered that the province where the company is located has greater poverty alleviation pressure.

The cross-multiplication term is used for heterogeneity analysis, where the dummy variable of poverty alleviation pressure is *Stress*, and the area with high poverty alleviation pressure is 1, otherwise, it is 0. The regression results are shown in column (2) of Table 6. Since the regression coefficient of  $TPA \times Stress$  is significantly negative at the 1% level, it indicates that when listed companies are located in areas with greater poverty alleviation pressure, their default risk is reduced to a greater degree. The effect is more obvious.

### 6.3 Analysis of Heterogeneity Based on the Nature of Property Rights

State-owned enterprises and private enterprises face different risks of default. Studies have shown that some state-owned enterprises have soft budget constraints, which reduces their default risk [21]. At the same time, the financing costs of private enterprises are relatively large, and higher borrowing costs and higher external financing risk premiums have led to a substantial increase in the financing costs of private enterprises, which has led to a higher risk of default by private enterprises compared with state-owned enterprises [22]. Based on this, we believe that through targeted poverty alleviation to obtain government support, the effect of reducing the risk of corporate default is more obvious in private enterprises.

This paper uses the cross-multiplication item to analyze the heterogeneity, and the regression results are shown in column (3) of Table 6. Whether it is a state-owned enterprise or a private enterprise, participating in precision poverty alleviation can reduce the enterprise's default risk. Since the regression coefficient of  $TPA \times State$  is significantly negative at the 1% level, it indicates that for private enterprises, participation in targeted poverty alleviation has a more significant impact on reducing the risk of default, and its effect is more obvious.

## 7 Conclusions

Enterprises participating in targeted poverty alleviation impact their own development and financing constraints, which in turn affects their credit issues, that is, their default risk. The problem of financing constraints plays an intermediary transmission effect. Policy subsidies and improving reputation are specific or intermediary factors affecting financing constraints.

Based on this, this paper empirically tests the effect and internal mechanism of enterprises participating in targeted poverty alleviation and reducing their default risk. Based on this article, this paper takes listed companies participating in targeted poverty alleviation in China's A-share market from 2016 to 2020 as the research object, and uses Merton's method to measure the relationship between the level of targeted poverty alleviation participation and corporate default risk.

According to the robustness test, the level of participation in the precision poverty alleviation of enterprises (TPA) is always significantly negative at the 1% level, which

**Table 6.** Heterogeneity test

	(1)	(2)	(3)
	Default	Default	Default
<i>TPA</i>	-46.50*** (-4.23)	-23.50*** (-5.23)	-24.06*** (-3.28)
<i>TPA</i> × <i>IPV</i>	-62.48*** (-5.32)		
<i>TPA</i> × <i>Stress</i>		-32.94*** (-16.7)	
<i>TPA</i> × <i>State</i>			-25.82*** (-2.82)
<i>IPV</i>	0.09** (2.38)		
<i>Stress</i>		3.08*** (3.70)	
<i>State</i>	-2.21 (-1.16)	-2.35 (-1.35)	-3.00 (-1.64)
<i>Constant</i>	-123.30*** (-5.53)	-0.14*** (-5.98)	-0.50*** (-3.11)
Company/Year effect	Control	Control	Control
Number of samples	3663	3663	3663
Adjusted R2	0.35	0.32	0.33

shows that the conclusions of this paper are still robust. Enterprises participating in targeted poverty alleviation can effectively reduce the default risk of enterprises. According to the heterogeneity analysis, for listed companies that participate in industrial poverty alleviation, are located in areas with high poverty alleviation pressure, and belong to private companies, their default risk will be reduced to a greater degree, and the effect will be more obvious. According to the mechanism analysis, first, enterprises participating in targeted poverty alleviation are more conducive to establishing an excellent corporate image, improving social reputation and word of mouth, which helps increase the willingness of potential customers, investors and enterprises to cooperate. Therefore, participating in targeted poverty alleviation can bring more investment opportunities and financing convenience to companies and alleviate external financing constraints through reputation effects, thereby reducing the default risk of companies. Second, enterprises participating in targeted poverty alleviation will receive preferential policies from the government, including fiscal and financial policies. This will further reduce the default risk of poverty alleviation enterprises.

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