The influence of non-controlling major shareholder's exit threat on firm's idiosyncratic risk

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Abstract. Non-controlling major shareholders can effectively restrain controlling shareholders and management by exit threat, so as to participate in corporate governance. Traditional research holds that the exit threat of non-controlling major shareholders can make the company have a more stable development prospect, but it has not paid enough attention to the hidden dangers. Based on 23,243 samples of Shanghai and Shenzhen A-shares from 2010 to 2021, this paper analyzes the influence of non-controlling major shareholder's exit threat on idiosyncratic risk of enterprises. It is found that the exit threat of non-controlling major shareholders will significantly increase the idiosyncratic risk of enterprises. Overall, exit threat lead to increased idiosyncratic risk. This conclusion is still robust after controlling for endogenous problems. The reason why the exit threat amplifies the idiosyncratic risk is that the idiosyncratic volatility is the market's response to the increased uncertainty of the future return rate of individual stocks, while the high exit threat of non-controlling major shareholders of a company exposes the future uncertainty of the company to investors more. This paper reveals that the threat of exit is the key factor affecting the idiosyncratic risk of firms, which has important reference value for regulators and investors.

Keywords: Entertprise idiosyncratic risk; Exit threat; Non-controlling major shareholder.

1. Introduction

With the acceleration of the maturation of China's securities market, the call for the establishment of a sound internal control system of listed companies in China's securities capital market is getting louder and louder. Among them, as an important means of enterprise internal supervision, the exit threat of non-controlling major shareholders has attracted the attention of financial scholars in recent years. The idiosyncratic risk, as the fluctuation risk brought by the enterprise's operation management, financial performance and other important matters, will affect the interests of investors and customers. Based on the traditional efficient market theory and asset pricing theory, systemic risk cannot be avoided, but idiosyncratic risk can be eliminated through complete diversification. However, in reality, idiosyncratic risks cannot be avoided due to the impact of individual investor differences, transaction costs, financing constraints, information asymmetry and other factors. Therefore, this paper proposes to study the influence of non-controlling shareholder's exit threat on firm idiosyncratic risk.

By combing the literature on the exit threat of non-controlling major shareholders, it can be found that domestic and foreign scholars basically form the opinion that the exit threat of non-controlling major shareholders, as a means of internal supervision of enterprises, can affect the development of enterprises in multiple dimensions. Generally speaking, there are two ways for non-controlling major shareholders to participate in corporate governance: active participation and exit threat.

When the effect of active participation is not ideal, the threat of exit becomes another way for non-controlling major shareholders to safeguard their interests. When the non-controlling major shareholders perceive the damage to the enterprise value, they make "exit threat" as a bargaining chip. Since the information of major shareholders is regarded as a negative signal to the market of exit, leading to a sharp drop in the stock price, thus damaging the interests of the management and controlling shareholders. For example, the probability that more and more senior executives are forced to change or be acquired weakens the controlling interests of the controlling shareholders,

which is enough to make the controlling shareholders and management change the decisions that damage corporate value. Idiosyncratic risk is also known as idiosyncratic volatility, which refers to the volatility risk brought to enterprises when major events such as operation and management, financial performance at the enterprise level change. Idiosyncratic risk is caused by specific factors of enterprises. It is fundamentally different from the systemic risks caused by external market factors.

This paper takes samples of Chinese listed companies from 2010 to 2021 as the research object. Based on signal transmission theory and limit dependent variable model, this paper empirically tests the influence and mechanism of non-controlling shareholder exit threat on enterprise idiosyncratic risk. The contributions of this paper are mainly reflected in: First, the Chicago School pursues "shareholder activism", believing that shareholders solve risk problems by putting pressure on management and implementing discipline. This study is an extension of the view of the Chicago School. Different from Chen Kejing's study, the exit threat can effectively restrain earnings management behavior and reduce agency costs. This paper also provides a study on the influence of non-controlling shareholders using exit threat as bargaining chip on idiosyncratic risk. Second, compared with the systemic risk or agency cost previously selected, this paper selects the characteristic risk that has a greater impact on the potential bankruptcy risk of the company to analyze the enterprise volatility risk, which enricfies the impact study on the characteristic risk of the enterprise. Third, different from the previous scholars' view, we hole the view that the exit threat can reduce the risk of stock price crash and maintain the supervision of management by non-controlling shareholders will improve the value of the company, this paper focuses on the analysis of the increase of enterprise instability factors caused by the increase of the exit threat, which may increase the risk of enterprise idiosyncratic fluctuation.

This paper finds that the increase of the exit threat of non-controlling shareholders will lead to the increase of enterprise idiosyncratic risk, indicating that the exit threat will increase the volatility of idiosyncratic risk while improving corporate value, which is of positive significance for in-depth understanding of the internal mechanism of the governance effect of the exit threat.

2. literature review

Although exit threat has been widely used in enterprises, it was only implemented in recent decades through theoretical deduction and empirical test, and the research on exit threat in China only emerged in recent years. Jiang Fuxiu et al. (2015) [1] formally introduced this governance behavior into the Chinese context by studying the withdrawal threat and private interests of major shareholders. However, Chen Kejing (2019) [2], referring to the method Dou et al. (2018) [3], took 26,485 observation samples of Shanghai and Shenzhen A-shares in China from 1999 to 2015 as research objects to analyze the influence mechanism of non-controlling major shareholders' exit threat on the agency cost of enterprises. In addition, the governance effect of exit threat in the context of non-tradable share structure reform, stock price crash risk and stock market conditions was investigated, and an exit threat measurement method that can reflect individual differences was constructed to provide a reference for scholars' follow-up research. In the subsequent studies, scholars focused on the promotion effect of exit threat on the behaviors that enhance corporate value and the inhibition effect on the behaviors that violate corporate interests. Wu Chang (2021) [4] took all China's A-share listed companies from 2007 to 2019 as research samples to study the impact of non-controlling shareholders' exit threat on inefficient investment, and found that non-controlling shareholders' exit threat was significantly negatively correlated with enterprises' inefficient investment, that is, non-controlling shareholders could alleviate enterprises' inefficient investment by means of exit threat. Under the threat of the exit of major shareholders, the agency costs of both companies decreased significantly (Chen Kejing, 2019 [2]; Cao Zhipeng and Gao Shishi, 2019 [5]), the effectiveness of executive compensation contract is enhanced (Lin Aimei and Miao Huimin, 2021 [6]), agency problems are alleviated, corporate interests and management interests are unified, corporate short-term behaviors and major shareholders' infringement on minority shareholders are effectively

suppressed, and corporate earnings management is managed (Chen Kejing, 2018 [7]; Yu Nutao et al., 2020 [8]). The threat of exit also mitigated the self-serving corporate tax avoidance by management (Yang Chunhua and Wang Jinghua, 2020 [9]) and the non-dividend behavior of "iron rooster" companies (Hu Jianxiong and Yin Qianqian, 2019 [10]). These governance effects will reduce the abuse and appropriation of corporate funds by management and controlling shareholders, and more funds will flow into activities that can improve corporate performance, such as encouraging corporate innovation (Li Zhuangzhuang and Li Qiang, 2020 [11]; Wang Aiqun and Liu Yao-na, 2021 [12]; Chen Kejing et al., 2019 [2]; Wang Aiqun and Liu Yaona, 2021 [12]), improve the quality of financial reports (Yu Nutao et al., 2021 [8]), improve the performance of corporate mergers and acquisitions (Wang Zhifang and Suo Chengrui, 2022 [13]), and further enhance the valuation of enterprises, so as to achieve stable operation and long-term development of enterprises.

3. Theoretical analysis and hypothesis

Shareholders are one of the important subjects of corporate governance. According to the shareholding ratio, shareholders can be divided into major shareholders and minority shareholders. Different shareholders have different motives and abilities to participate in corporate governance. Major shareholders have strong motivation and ability to participate in corporate governance due to their larger shareholding ratio. Major shareholders can participate in governance through supervision, exit and threat of exit. Threat is a game in social psychological system. Threats can put pressure on an opponent to yield. A threat by a major shareholder to exit is not a real exit, but a way to get a company to back down or compromise by threatening to do so. At present, the governance role of exit threat has been proved by many scholars. In both types of agency problems, major shareholders play an important role, while non-controlling major shareholders, as special major shareholders, can exert an important influence on corporate governance through the threat of withdrawal. Under certain circumstances, in order to seek private gains, large shareholders will use the threat of exit to force listed companies to whitewash their financial reports and cooperate with their actions in the capital market, which has a certain impact on the amplification of idiosyncratic risks of enterprises. Different from previous scholars' views that exit threat can reduce the risk of stock price collapse and maintain the supervision of management by non-controlling shareholders will improve the value of the company, this paper focuses on the analysis of the increase of enterprise instability factors caused by the increase of withdrawal threat, which may increase the risk of enterprise characteristic fluctuation. This paper finds that the increase of non-controlling shareholders' exit threat will lead to the increase of idiosyncratic risk, indicating that the exit threat will increase the volatility of idiosyncratic risk while improving corporate value, which has positive significance for in-depth understanding of the internal mechanism of the governance effect of exit threat.

Based on this, this paper proposes the following research hypotheses:

H1: The increase of non-controlling shareholder exit threat will lead to the increase of enterprise characteristic risk

4. Study design

4.1. Sample data

This paper takes the period from 2010 to 2021 as the data selection period, and China's non-financial listed companies as the initial samples. By eliminating the ST and *ST samples with missing data and the samples with abnormal relevant data (such as the asset-liability ratio greater than 1), 4997 companies are finally obtained, and 23,233 effective observation samples are accumulated. The data in this study are mainly from Wind China Financial Database and CSMAR database.

4.2. Variable definition

(1) Dependent variable

Entertprise idiosyncratic risk: By referring to Bernile etal. (2018) [14], the annual standard deviation of daily stock return rate is taken as total_risk of the enterprise, and the market model regression is carried out with daily stock return rate to the comprehensive daily market return rate. The coefficient obtained is the enterprise's system_risk. idiosynrisk of an enterprise can be estimated by the standard deviation of the residual term of the model to get the idiosyncratic risk of an enterprise (refer to the following formula idiosyncratic risk of stock i in year y can be described as Formula (5))

$$IRISiy=std(\varepsilon iy) \tag{1}$$

In addition, all the above three risk indicators refer to Bernile etal. (2018) [21], which multiplied the result by 250 and then took logarithmic processing for annualized processing. The specific calculation formula is as follows:

$$total\_risk_{i,t}=\ln(250*\sqrt{var(R_{i,d})}) \tag{2}$$

The market regression model is used to regression the market return rate based on the daily return rate of individual stocks:

$$Ri,d= \alpha i+\beta iRm,d+\varepsilon i,t \tag{3}$$

According to the market regression results, systematic risk taking and idiosyncratic risk taking can be obtained:

$$system\_risk_{i,t}=\ln (250*\beta_i) \tag{4}$$

$$idiosyn\_risk_{i,t}=\ln(250*\sqrt{var(\varepsilon_{i,d})}) \tag{5}$$

$R_{i,d}$ Is the daily rate of return of stock i on day d of year t considering the reinvestment of cash dividend i.$R_{m,d}$ Is the comprehensive daily market return on day d of year t calculated by the weighted average method of current market value considering the reinvestment of cash dividends?

(2) Independent variables

Non-controlling majority shareholder exit threat NET: Although the exit threat has been proved theoretically, how to measure the exit threat reasonably in the empirical research faces great challenges. Existing literature mainly uses Dou method to measure exit threat. Dou et al [3] believes that exit threat is mainly affected by stock liquidity and the degree of competition between major shareholders. They take the cross product term of liquidity and major shareholder competition as the proxy variable of exit threat. When the stock liquidity is stronger and the competition of major shareholders is more intense, the enterprise's withdrawal threat is higher.

Degree of competition of major shareholders BHC: Since this paper mainly examines the exit threat of non-controlling major shareholders, the Dou et al [3] method is improved here. The specific metering model is as follows:

$$BHC_i=\sum_{k=1}^{n}(\frac{NCLS_{k,i,t}}{SSBH_{i,t}})2 \tag{6}$$

$BHC_{i,t}$ is the competition degree of non-controlling major shareholders in the year t of the i enterprise $NCLS_{k,i,t}$ is the shareholding ratio of the k non-controlling major shareholder in the year t of the i enterprise, and $SSBH_{i,t}$ is the sum of shareholding ratio of all major shareholders in the year t of the i enterprise, where shareholding ratio refers to the proportion of outstanding shares held. Therefore, the larger the $BHC_{i,t}$ the higher the degree of competition between non-controlling major shareholders.

Finally, the econometric model of the exit threat NET of non-controlling major shareholders is constructed as follows:

$$NET_{i,t}SL_{i,t}BHC_{i,t} \tag{7}$$

(3) Control variables

Draw lessons from Chen Kejing [2] this paper controls the following factors: enterprise Size (Size), natural logarithm of total assets; Solvency (Lev), asset-liability ratio; Return on total Assets (ROA); Cash flow ratio (Cash flow); Growth, the growth rate of operating revenue; Indep, the proportion of independent directors in the board of directors; Size of Directors (Broad).The number of directors is logarithm; Total Asset turnover (ATO), operating revenue/average total assets; Firmage, age of firm; Listage, the number of years since the company went public; Whether state-owned enterprise (SOE), dummy variable when is state-owned is 1, non-state-owned is 0. In addition, this paper also controls the annual and industry fixed effects, and the variable definitions are shown in Table 1.

Table 1. Variable definition and description.

The variable type	Variable Name	Symbol of Variable	Definition of Variable
Explained variable	Enterprise idiosyncratic risk	idiosyn_risk	Standard deviation of the residual term
Variable of explanation	Non-controlling majority shareholder exit threat	NET	exit threat measured by Dou method
Variable of explanation	Size of Enterprise	Size	Ln(total asset)
	Solvency capacity	Lev	Total liabilities / total assets
	Net return on total assets	ROA	After-tax profit / owner's equity
	Total assets turnover	ATO	Operating income/total average assets
	Cash flow ratio	Cashflow	Net cash flow from operating activities / total assets
	Growth	Growth	(T period operating income - (T-1) period operating income) / (T-1) period operating income
	The proportion of indenpendent diretors	Indep	Number of INEDs / Number of Board Directors
	Two jobs in one	Dual	The chairman and general manager are the same person is l, otherwise is 0
	Years of listing	Listage	The number of years since the company went public
	Years of establishment	Firmage	The number of years since the establishment of the company
	Whether state- owned enterprise	SOE	The value of state controlled enterprises is 1, and the others are 0
	Size of directors	Board	The number of directors is logarithmic
	Dummy variable of year	Year	To control for annual effects, set 11 annual dumb variables
	Dummy variable of industry	industry	Control industry effects and set 20 industry dumb variables

4.3. Model design

In order to test the relationship between the exit threat of non-controlling major shareholders and the idiosyncratic risk of the company, this paper constructs the following model:

$$idosyn\_risk_{i,t}=\alpha_0+\alpha_1 NET_{i,t}+\alpha_2 Controls_{i,t}+\sum Year+\sum Industry+v \quad (8)$$

idiosyn_risk is idiosyncratic risk of the company. $NET_{i,t}$ for the non-controlling major shareholder of i company in t year exit threat, forecast supervision process.

The regression coefficient α_1 of degree $NET_{i,t}$ is significantly positive, indicating that the exit threat of non-controlling major shareholders will lead to the increase of idiosyncratic risk of enterprises, and the research hypothesis of this paper will be proved. At the same time, the following processing was done in the data analysis: In order to eliminate the influence of extreme values, all continuous variables were treated with 1% and 99% Winsorize; In order to avoid the influence of the clustering effect on the regression coefficient standard error, Cluster processing at the company level is also carried out in this paper.

5. Empirical Results

5.1. Descriptive statistics

Descriptive statistics of the main variables are shown in Table 2. Table 2 shows that the mean value of idiosyncratic risk is 1.732, the minimum value is 0.285, the maximum value is 2.767, and the standard deviation is 0.322. This indicates that the idiosyncratic risk of enterprises differ greatly and are greatly affected by the corresponding variables. The mean and standard deviation of exit threat (NET) of non-controlling major shareholders are 0.002 and 0.003, respectively, with a minimum value of 0.000 and a maximum value of 0.015. It shows that our listed equity is still relatively concentrated, and different enterprises exit threat is different. As the result is taken to three decimal places, a large number of values are 0.000. According to the sample distribution and careful inspection, many samples have numerical values after three decimal places.

Table 2. Descriptive statistical results.

variable	N	mean	sd	min	p50	max
idiosyn risk	23243	1.732	0.322	0.285	1.742	2.767
NET	23243	0.002	0.003	0.000	0.001	0.015
SOE	23243	0.354	0.478	0.000	0.000	1.000
Size	23243	22.229	1.285	19.52	22.050	26.430
Lev	23243	0.425	0.202	0.027	0.419	0.925
ROA	23242	0.042	0.065	-0.398	0.039	0.254
ATO	23242	0.652	0.440	0.053	0.554	2.907
Cashflow	23243	0.047	0.068	-0.224	0.047	0.257
Growth	23241	0.178	0.394	-0.660	0.118	4.330
Indep	23243	0.375	0.053	0.273	0.333	0.600
Dual	23243	0.278	0.448	0.000	0.000	1.000
ListAge	23243	2.168	0.780	0.693	2.303	3.367
FirmAge	23243	2.904	0.339	1.099	2.944	3.611
Board	23243	2.128	0.194	1.609	2.197	2.708

5.2. Correlation analysis

Pearson and Spearman correlation coefficient tests were conducted for each major variable. The correlation results of each major variable were summarized in Table 3, and there was no multicollinearity problem among the variables. The exit threat of non-controlling major shareholders (NET) has a significant relationship with the enterprise idiosyncratic risk at the 1% level, and the value is 0.386, indicating that the exit threat of non-controlling major shareholders has a positive impact on the enterprise idiosyncratic risk. With the increase of the exit threat of non-controlling major shareholders, the idiosyncratic risk will rise, and there is a significant positive correlation between the two.

Table 3. Correlation analysis of main variables.

variable	idiosyn_risk	NET	Size	Lev	ROA	ATO	Cash flow	Growth	Indep	Dual	ListAge	Firm Age	SOE	Board
idiosyn_risk	1													
NET	0.386***	1												
Size	-0.313***	-0.239***	1											
Lev	-0.098***	-0.144***	0.509***	1										
ROA	-0.033***	0.012*	0.002	-0.341***	1									
ATO	-0.024***	-0.039***	0.037***	0.143***	0.169***	1								
Cash flow	-0.037***	-0.019***	0.062***	-0.175***	0.396***	0.107***	1							
Growth	0.102***	0.036***	0.039***	0.032***	0.251***	0.134***	0.022***	1						
Indep	0.047***	0.022***	0.010	-0.012*	-0.016**	-0.027***	-0.013*	0.003	1					
Dual	0.130***	0.094***	-0.161***	-0.132***	0.041***	-0.029***	-0.004	0.022***	0.112***	1				
ListAge	-0.196***	-0.326***	0.402***	0.352***	-0.197***	0.016**	-0.023***	-0.078***	-0.033***	-0.248***	1			
Firm Age	-0.010	-0.098***	0.193***	0.155***	-0.098***	-0.025***	0.021***	-0.071***	-0.007	-0.094***	0.527***	1		
SOE	-0.225***	-0.212***	0.334***	0.288***	-0.093***	0.036***	-0.025***	-0.058***	-0.079***	-0.295***	0.446***	0.156***	1	
Board	-0.175***	-0.081***	0.245***	0.156***	0.009	0.027***	0.034***	-0.010	-0.541***	-0.175***	0.140***	0.015**	0.279***	1

Note: ***, ** and* mean significant at 1%, 5% and 10% levels respectively, the same below.

5.3. Baseline regression analysis

The first column of Table4 reports the multiple regression results of non-controlling major shareholder exit threat and entertprise idiosyncratic risk. In regression (1), NET is used as the exit threat index of non-controlling major shareholders. After controlling variables that can significantly affect idiosyncratic risk, the regression coefficient between non-controlling major shareholder's exit threat and idiosyncratic risk is 35.107 and significantly positive at the 1% level, indicating that the higher the non-controlling major shareholder's exit threat, the greater the uncertainty faced by the company, thus increasing the company's idiosyncratic risk, which is consistent with the expectation of this paper.

6. Robustness test

There may be endogeneity problems in this study: First, when we measure the exit threat of non-controlling shareholders, although the financial industry has been excluded and tail removal has been done in the data processing, there may be some factors that are not considered to affect the regression results. Second, the dependent variable and the independent variable are causal to each other. Because the enterprise itself with high idiosyncratic risk may cause the non-controlling shareholders to quit the threat of greater. In this paper, three methods are adopted to test the endogeneity problem:

6.1. Heckman two-stage regression test

First, we used Probit regression to estimate the non-idiosyncratic risk as high and low probability. Secondly, lambda (Inverse Mills Ratio) was calculated. Based on the Inverse Mills Ratio, the regression analysis was re-conducted, and the results (The second column of Table4) remained unchanged.

6.2. Multidimensional panel fixed effect estimation

First of all, in addition to controlling the fixed effect of the year and industry, cross-multiplication fixed effect is also added. The results obtained by regression analysis of multidimensional panel data after processing are consistent with the previous regression, which is reported in the third column of Table4.

6.3. Propensity Score Matching Method (PSM)

The samples with qualitative changes in the exit threat of non-controlling major shareholders were screened out, and PSM was used to find the control group with similar characteristics. On this basis, the changes of idiosyncratic risk of the company were tested. Then the corresponding propensity score was calculated, and the corresponding control group was found by using the one-to-three matching without placing, and the similar regression results were obtained. Its result is in the fourth column of Table4.

Table 4. Regression results.

VARIABLES	Benchmark Regression results	Heckman two-step regression method	Fixed effects of multidimensional panels	PSM propensity value matching method
	idiosyn_risk	idiosyn_risk	idiosyn_risk	idiosyn_risk
NET	35.107***	35.282***	28.668***	0.130***
	(49.289)	-47.199	-44.891	-32.202
SOE	-0.029***	0.050***	-0.018***	-0.027***
	(-5.046)	-3.926	(-4.604)	(-4.362)
Size	-0.073***	0.02	-0.077***	-0.076***
	(-31.846)	-1.5	(-45.977)	(-30.726)
Lev	0.218***	0.047*	0.215***	0.232***
	(16.631)	-1.687	-20.033	-15.987
ROA	0.097***	0.563***	-0.026	0.116***
	(3.132)	-7.69	(-0.855)	-3.313
ATO	-0.008	0.030***	-0.007*	-0.015**
	(-1.463)	-3.722	(-1.673)	(-2.438)
Cashflow	0.078***	-0.082**	-0.004	0.068**
	(3.024)	(-2.368)	(-0.171)	-2.318
Growth	0.070***	-0.053***	0.090***	0.073***
	(17.432)	(-2.958)	-21.178	-16.066
Indep	-0.019	-0.04	-0.03	-0.007
	(-0.456)	(-0.823)	(-0.851)	(-0.156)
Dual	0.016***	-0.026***	0.016***	0.013***
	(3.726)	(-3.490)	-4.345	-2.745
ListAge	0.008**	0.080***	-0.006**	-0.009**
	(2.092)	-7.331	(-2.002)	(-2.200)
FirmAge	-0.025***	-0.187***	-0.017***	-0.018*
	(-2.814)	(-7.614)	(-2.813)	(-1.804)
Board	-0.047***	0.115***	-0.054***	-0.057***
	(-3.675)	-4.383	(-5.235)	(-4.038)
lambda		-0.668***		
		(-7.085)		
Constant	3.375***	1.871***	3.477***	3.500***
	(54.032)	-8.594	-77.533	-51.527
Observations	23,240	23240	23240	19068
Number of stkcd	3,657	3657	3657	3464
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES

7. Further analysis

On the basis of benchmark regression, the cross variable of exit threat and property of equity is added, and the cross variable is positively correlated with the trait risk at the level of 1%. The test results show that the positive correlation between exit threat and property risk is amplified when the property of equity is owned. Since state-owned enterprises are owned by the whole people in nature, only the government exercises ownership and control on behalf of citizens. Therefore, the

particularity of state-owned enterprises determines that their organizational form is different from that of private enterprises which only pursue the maximization of economic benefits. While achieving their economic goals, state-owned enterprises should also pay attention to their social and political goals. When the government (client) is the controlling shareholder of the enterprise, political or social factors are added to the goals of the state-owned enterprise, and there is often a difference between the goals of the state-owned enterprise and the realization of shareholder wealth maximization (economic goals).The results are presented in Table 5.

Table 5. Regression result of cross-product terms.

VARIABLES	idiosyn_risk
NET	33.071***
	(42.37)
SOE	-0.045***
	(-7.16)
NET_SOE	10.750***
	(6.34)
Size	-0.073***
	(-31.89)
Lev	0.216***
	(16.56)
ROA	0.097***
	(3.15)
ATO	-0.007
	(-1.38)
Cashflow	0.078***
	(3.03)
Growth	0.070***
	(17.45)
Indep	-0.017
	(-0.40)
Dual	0.016***
	(3.77)
ListAge	0.008**
	(2.00)
FirmAge	-0.025***
	(-2.84)
Board	-0.048***
	(-3.78)
Constant	3.380***
	(54.18)
Observations	23,240
Number of stkcd	3,657
Year FE	YES
Industry FE	YES

Z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

8. Conclusion

There have been many researches and explorations on the role of exit threat in corporate governance, but predecessors mainly analyzed the impact on the delegation problem and agency cost. Different from the existing studies, this paper selects the firm's e idiosyncratic risk to study the impact

of exit threat. Based on the signal transmission theory, Heckman treatment and limit dependent variable model, this paper empirically tests the impact and mechanism of non-controlling shareholder exit threat on firm's e idiosyncratic risk. The empirical test results show that there is a significant positive correlation between non-controlling shareholders' exit threat and entertprise idiosyncratic risk, indicating that the greater the exit threat, the greater the entertprise idiosyncratic risk. Moreover, this conclusion still holds significantly after several methods were used to control the endogeneity problem.

In this paper, there are some limitations in further explaining the specific influence mechanism of non-controlling majority shareholder exit threat on entertprise idiosyncratic risk. So. In the future, further studies can be carried out in the following aspects: First, we propose a possibility to consider stock price crash risk as the intermediary variable of non-controlling major shareholders' exit threat affecting idiosyncratic risk, so as to further test the relationship between exit threat and entertprise idiosyncratic risk. Second, subdivide the categories of non-controlling major shareholders into various small categories of shareholders, so as to investigate the difference of the impact of different categories of shareholders on the idiosyncratic risk of enterprises.

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