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Ultimate Controllers and Corporate Diversification

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ABSTRACT

This paper investigates the impact of ultimate controllers on corporate diversification strategy. Using a sample of Chinese listed firms from the period 2004 to 2008, the results show that the divergence between cash flow right and control right of the ultimate controller has significantly positive effects on corporate diversification. Further analysis shows that the effects of the divergence are stronger when the ultimate controller has a longer control chain.

1 Introduction

Corporate diversification strategy is extensively researched by economic and financial researchers. Much researches examine the reasons that corporate diversify, such as exercising monopoly power (Villanonoga, 2000), reducing risk (Khanna and Yafeh, 2005), or decreasing the coordination costs (Rawley, 2010). La Porta, Lopez-de-Silanes, and Shleifer (1999) suggest that the agency problem of ultimate controllers and minority shareholders may have important effect on corporate strategies. However, only a few studies examined the relationship between ultimate controllers and corporate diversification strategy.

This paper investigates the impact of ultimate controllers on corporate diversification strategy. I use a sample of listed firms of China's capital markets in the period 2004-2008. The results show that the divergence between cash flow rights and control rights of the ultimate controller has significantly positive effects on corporate diversification. Further analysis shows that the effects of the divergence are stronger when the ultimate controller has a longer control chain.

The remainder of this study proceeds as follows. Section 2 reviews the literature. I review the research design in section 3. Section 4 provides the main results, and the final section provides concluding comments.

2 Literature Review

Montgomery (1994) identifies three main theoretical perspectives that can be used to explain why a firm might choose to diversify: agency theory, the resource based view, and market power. According to the agency theory, diversification results from the pursuit of managerial self-interest at the expense of stockholders. Managers may seek to diversify because it is expected to increase their compensation (Jensen and Murphy, 1990), make their positions with the firm more secure, or reduce the risk of their personal investment portfolio. From the resource-based perspective, the diversified firm is an efficient form for organizing economic activities

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(Penrose, 1959). The third and final theoretical perspective from which to view the motivation for corporate diversification is market power (Villalonga, 2000).

A diversification discount is reported by Lang and Stulz (1994) and Berger and Ofek (1995). Recently, Laeven and Levine (2007) report a sizeable diversification discount for an international sample of banks between 1998 and 2002. Schmid and Walter (2009) find a similar discount for U.S. financial intermediaries between 1985 and 2004. Ammann, Hoechle, and Schmid (2009) report a robust and significant discount of between 5% and 21% for U.S. non-financial firms between 1998 and 2005.

A large body of corporate finance research over the past years has documented the low valuation of diversified companies. To date, no consensus explanation has emerged for this pattern. Lamont (1997) and Ozbas and Scharfstein (2010) provide evidence of inefficient investment patterns. Baker (1992) indicates that the administrative cost associated with an internal capital market may create a significant drag upon the firm value, regardless of whether capital is allocated effectively. Graham, Lemmon and Wolf (2002) point to inefficient patterns of diversifying takeovers, showing that firms tend to acquire low-quality assets when buying firms in another industry. Other explanations suggested by academics and industry observers include the poor transparency of accounting data produced by conglomerates (e.g., Bushman, Engel, and Smith, 2004).

La Porta, Lopez-de-Silanes, and Shleifer (1999) find that approximately 25 percent of the firms in their sample are members of pyramids. In a pyramid, an ultimate controller uses indirect ownership to maintain control over a large group of companies. In such firms, the primary agency conflict is between large controlling shareholders and other investors, and the divergence between cash flow rights and control rights creates a separation of ownership and control that aggravates these conflicts. Further researches examine the impact of the divergence between cash flow right and control right on corporate strategies, such as the informativeness of accounting earnings (Fan and Wong, 2002), capital structure (Du and Dai, 2005).

3 Research Design

3.1 Sample selection and data source

The initial sample consists of non-financial firms of China's capital markets from 2004 to 2008. To be included in the sample, firms must also have data available on the annual database. The final sample contains 4,905 firm-year observations.

I use the China Center for Economics Research (CCER) database and the China Stock Market and Accounting Research (CSMAR) database as my main sources of information. The CCER database provides data on corporate diversification, while the CSMAR database includes firm level financial and operational information.

3.2 Research variables

3.2.1 Corporate diversification

The primary explanatory variable of interest in the analysis is the measure of corporate diversification. I use 2 measures: *LnDivN* is the logarithm of number of the industries of the firm's sales; *HI* is the Herfindahl Index, which is computed for all firms based on the distribution of the firm's sales across its various business segments. To ease the interpretation of the results, I use (1-Herfindhal Index) to replace Herfindahl Index.

3.2.2 Divergence between control rights and cash flow rights of the ultimate controller

Following La Porta, Lopez-de-Silanes, and Shleifer (1999), *CV* is the ratio of cash flow rights over voting rights of the ultimate controller.

3.3 Research models

Since the sample is pooled across company-year observations, the annual observations of a given company might not be drawn independently and, to correct this statistical problem, I adjust the coefficients' standard errors by ''clustering'' on each company (Petersen, 2009). Since cash holding policies can vary across industries, I control for industry specific factors through the use of industry dummies. Also, since the changes in cash holdings can vary across time, we address this issue by including year fixed effects. The model used is as follows:

$$Div = \beta_0 + \beta_1 CV + \beta_2 Size + \beta_3 Lev + \beta_4 ROA + \beta_5 Capex + \beta_6 Lnage + \beta_7 Q + Year\ fixed\ effect + Industry\ fixed\ effect + \varepsilon \quad (1)$$

Where

Div = *LnDivN* or *HI*; *LnDivN* = the logarithm of number of the industries of the firm's sales; *HI* =1-Herfindhal Index; *CV* = the ratio of cash flow rights over voting rights of the ultimate controller; *Size* = the logarithm of total assets; *Lev* = total liabilities divided by total assets; *ROA* = net income divided by total assets; *CapEx* = capital expenditures deflated by depreciation expense; *Lnage* = the logarithm of number of corporate age; *Q* = the market value of equity divided by the book value of total assets.

4 Empirical Results

4.1 Descriptive statistics

Table 1 reports descriptive statistics for the variables. I winsorize all the continuous independent variables at the top 1% and bottom 99% percentiles in order to avoid outlier problems. The mean and median of *LnDivN* are 1.542 and 1.609, respectively. The mean and median of *HI* is 0.411 and 0.478. The median of *CV* is 1, indicating that there is a divergence of cash flow rights and voting rights of the ultimate controller in almost half of the sample.

Table 2 reports a Pearson correlation matrix for the variables. The correlation coefficient between *LnDivN* and *HI* is 0.738, which is significantly positive. The correlation coefficient between *CV* and *LnDivN* is 0.071, which is significantly positive. The correlation coefficient between *CV* and *HI* is 0.065, which is significantly positive. The other correlations also make sense.

Table 1 Descriptive statistics

	N	Mean	SD	1%	Median	99%
LnDivN	4905	1.542	0.453	0.693	1.609	2.639
HI	4905	0.411	0.253	0.000	0.478	0.825
CV	4905	0.811	0.263	0.111	1.000	1.000
Size	4905	21.323	1.055	19.033	21.226	24.648
Lev	4905	0.521	0.257	0.078	0.509	1.922
ROA	4905	0.073	0.089	-0.384	0.076	0.303
CapEx	4905	0.063	0.061	0.000	0.044	0.275
LnAge	4905	2.051	0.536	0.693	2.197	2.833
Q	4905	1.533	0.773	0.926	1.252	5.476

Table 2 Pearson correlation matrix

	LnDivN	*HI*	*CV*	*Size*	*Lev*	*ROA*	*CapEx*	*LnAge*	*Q*
LnDivN	1.000								
HI	0.738*	1.000							
CV	0.071*	0.065*	1.000						
Size	0.124*	0.012	0.101*	1.000					
Lev	0.019	-0.037*	-0.095*	0.067*	1.000				
ROA	0.029*	0.027	0.077*	0.218*	-0.414*	1.000			
CapEx	0.034*	0.048*	0.051*	0.172*	-0.156*	0.277*	1.000		
LnAge	-0.036*	-0.048*	-0.082*	0.204*	0.229*	-0.133*	-0.280*	1.000	
Q	-0.007	0.078*	-0.031*	-0.250*	0.051*	0.1234*	-0.061*	0.095*	1.000

Note: * = Statistically significant at the 5% level (two-tailed).

4.2 Regression results

Table 3 reports the regression results of the whole sample (N = 4,905). The dependent variable of Model 1 is *LnDivN*. The adjusted R^2 of the model is 8.0%. The coefficient of *CV* is 0.098, which is significantly positive (t-statistics = 2.74). The coefficient of *Size* is 0.056, which is significantly positive (t-statistics = 4.84). The coefficients of *Lev*, *ROA* and *CapEx* are not significant. The coefficients of *LnAge* and *Q* are -0.054 and -0.043, which are both significantly negative. The dependent variable of Model 2 is *HI*. The adjusted R^2 of the model is 9.1%. The coefficient of *CV* is 0.055, which is significantly positive (t-statistics = 2.68). The coefficient of *Q* is -0.021, which is significantly negative (t-statistics = -2.61). The coefficients of other control variables are not significant. The results show that the divergence between cash flow rights and control rights has significantly positive impact on corporate diversification.

Table 3 Regression results of the whole sample

	Model 1		Model 2	
	Dependent variable: *LnDivN*		Dependent variable: *HI*	
	Coefft.	t-stat.	Coefft.	t-stat.
CV	0.098***	(2.74)	0.055***	(2.68)
Size	0.056***	(4.84)	0.004	(0.65)
Lev	0.050	(1.30)	-0.021	(-0.95)
ROA	-0.017	(-0.18)	-0.067	(-1.17)
CapEx	0.046	(0.33)	0.152	(1.87)

LnAge	-0.054***	(-2.75)	-0.015	(-1.34)
Q	-0.043***	(-3.18)	-0.021***	(-2.61)
Constant	0.471	(1.92)	0.354**	(2.57)
Year dummies	Yes		Yes	
Industry dummies	Yes		Yes	
N	4905		4905	
adj. R-sq	0.080		0.091	
F	12.518		19.579	

Note: *, **, and *** denote significance levels of 10%, 5%, 1%, respectively. The t-statistics are reported in parenthesis.

In order to examine the effects of the control chain of the ultimate controller, I divide the sample into different sub-samples. In Model 3, the number of the layer of the control chain is more than 2. The coefficient of *CV* is 0.156, which is significantly positive (t-statistics = 3.17). The coefficient of *CV* is bigger than that of Model 1. In Model 4, the number of the layer of the control chain is not more than 2. The coefficient of *CV* is -0.022, which is not significant (t-statistics = -0.38). The results of Model 5 and Model 6 are similar to that of Mode3 and Model 4. In a word, the results suggest that the effects of the divergence between cash flow rights and control rights are stronger when the ultimate controller has a longer control chain.

Table 4 Regression results of the sub-samples

	Dependent variable: *LnDivN*		Dependent variable: *HI*	
	Model 3 *ChainD* = 1	Model 4 *ChainD* = 0	Model 5 *ChainD* = 1	Model 6 *ChainD* = 0
CV	0.156***	-0.022	0.098***	-0.035
	(3.17)	(-0.38)	(3.47)	(-1.12)
Size	0.058***	0.058***	0.002	0.007
	(3.31)	(3.95)	(0.24)	(0.88)
Lev	0.025	0.072	-0.031	-0.005
	(0.46)	(1.42)	(-1.03)	(-0.18)
ROA	-0.022	-0.007	-0.034	-0.101
	(-0.16)	(-0.05)	(-0.41)	(-1.27)
CapEx	-0.091	0.125	0.064	0.209**
	(-0.42)	(0.68)	(0.48)	(2.05)
LnAge	-0.069**	-0.046	-0.033	-0.007
	(-2.12)	(-1.88)	(-1.81)	(-0.51)
Q	-0.041	-0.042**	-0.023	-0.016
	(-1.87)	(-2.53)	(-1.86)	(-1.65)
Constant	0.459	0.470	0.457**	0.310
	(1.26)	(1.47)	(2.28)	(1.73)
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
N	2038	2867	2038	2867
adj. R-sq	0.081	0.079	0.114	0.085
F	5.621	7.686	10.101	11.533

Note: *, **, and *** denote significance levels of 10%, 5%, 1%, respectively. The t-statistics are reported in parenthesis.

5 Conclusion

In a pyramid, an ultimate controller uses indirect ownership to maintain control over a large group of companies. The divergence between cash flow rights and control rights creates a separation of ownership and control that aggravates the conflicts between the ultimate controller and minority shareholders.

This paper investigates the impact of ultimate controllers on corporate diversification strategy. Using a sample of Chinese listed firms from the period 2004 to 2008, the results show that the divergence between cash flow right and control right of the ultimate controller has significantly positive effects on corporate diversification. Further analysis shows that the effects of the divergence are stronger when the ultimate controller has a longer control chain.

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