

# Managerial Power, Capital Structure and Firm Value

Chunlong Zhang, Guoliang Zhang

School of Business Management, Dalian University of Technology, Dalian, China  
Email: [ChunLong.Zhang@cncbinternational.com](mailto:ChunLong.Zhang@cncbinternational.com)

Received December 2014

---

## Abstract

With the reform of our property rights system, the maturity of the capital market, and the diversification of corporate financing, the capital structure decision has become the major concern of financial management. There are numbers of researches on how to determine the optimal capital structure, what factors affect the capital structure and what the relationship is like between the capital structure and the firm value. Built upon prior literature, this paper investigates how managerial power influences the capital structure with the operation risks and the characteristics of the directors' structure. We find that the capital structure deviates from the optimal level more in firms with stronger managerial power, and these firms have a stronger discount on such deviation.

## Keywords

Managerial Power, Capital Structure, Firm Value

---

## 1. Introduction

With the accomplishment of the reform of the corporate property rights system, housing system and banking system, the Chinese capital market is gradually becoming mature and diversified financial instruments are emerging. The state-owned enterprise property rights reform and the collectively-owned enterprise restructuring have dramatically changed the capital structure of Chinese enterprises. The intensifying banking reform has increased the liquidity of credit funds. The funds are gradually centralized in the large-scale and preponderant enterprises. Thus, the reform provides financial leverage for the increase of the industrial capital. As an indicator of the rights and obligations of the corporate stakeholders, the capital structure is considered as the major measure of the corporate financing decisions. The corresponding capital structure theories are generally recognized as the footstones for the modern financial management theories, receiving widespread concerns from home and abroad. The core problem worth solving is whether and how the capital structure will influence the firm value and then whether there exists an optimal capital structure. However, due to the special institutional environment in China, the capital market is still imperfect and the investors are under relatively poor protection. Thus, companies strongly prefer equity financing. In this situation, the financing activities are often turned out to be the capital operations of the listed companies.

Researches on capital structure include the traditional corporate finance, agency theory and behavioral finance. The traditional corporate finance discusses how to determine the optimal capital structure. Modigliani and Miller (1958) [1] raised the Capital Structure Irrelevance Theory, which contends that in the perfect market, the capital structure is irrelevant to the firm value. The Principal-Agent Theory put forward by Jensen and Meckling (1976) [2] pays attention to the influence of a specific corporate mechanism (e.g. management shareholding, shareholders' dual identity of managers) on the capital structure. And the behavioral finance has introduced the way of analysis in organizational behavior, and showed its concern on the financial decisions under the managers' overconfidence.

Based on the past researches, this paper analyzes the relationship between the managerial power and the capital structure from the perspective of overconfidence and explores the marginal effect of the managerial power on the capital structure considering the pathway through which the capital structure affects the firm value.

## 2. Theoretical Analysis and Research Hypothesis

Based on the research by Fast *et al.* (2012) [3], our research refers to the analysis about the manager overconfidence by Hackbarth (2008) [4], Malmendier *et al.* (2009) [5] and gets to the specific decision making process for the capital structure. Because managers with the almighty power tend to overestimate the net present value of the investment projects, they think that the external market (especially the stock market) underestimates the firm value and therefore favor internal retained earnings as the way of financing. Compared to those companies with enough cash flows, these companies are more conservative regarding debt financing. This kind of situation is more commonly seen in the Chinese capital market with insufficient protection for investors. But for those companies whose retained earnings cannot satisfy their investment, they may adopt some radical debt financing strategies.

Therefore, whether debt conservatism or radical financing strategies show that overconfidence driven by concentrated power will lead managers to the capital structure decisions that deviate from the optimal capital structure determined by the traditional framework and thus this reflects the irrational features of decisions. Based on the analysis above, this paper raises the following hypothesis 1: *Ceteris paribus*, the stronger the managerial power is, the more deviated the capital structure is from the optimal one.

Strong control power leads to biased estimates about the external financing costs and thus the managers may make capital structure decisions that deviate from the optimal one. But under the debt conservatism, investors will not change their expectations about the real risks of the investment projects regardless of this irrational capital structure decision and still require the corresponding investment returns. Under the radical debt financing condition, the corporate financial crisis costs will be raised and thus the general equity capital costs will increase, leading to the loss of the firm value. This theory provides a new thought to understand the value effect of the capital structure from the perspective of the drives for decision making. Based on the analysis above, this paper raises the following hypothesis 2: *Ceteris paribus*, the stronger the managerial power is, the stronger the discount effect is.

## 3. Sample Selection and Research Design

This paper covers 5 consecutive years from 2007 to 2011, and the data are obtained from the CCER Database and the CSMAR Database. To ensure the robustness and reliability of the research conclusion, the paper removed the following data. 1) Listed companies in the finance and insurance industry; 2) Listed companies issuing B shares or H shares; 3) Listed companies which are delisted or considered as ST (Special Treatment) shares; 4) Insolvent companies; 5) Companies with main variables out of the middle 99%. After the removals, 5321 samples are selected for the hypothesis 1 and 4087 samples are selected for the hypothesis 2.

The paper measures the capital structure with the ratio of total liability, liabilities with interests and short-term liability to the total assets respectively and uses the data adjusted according to the median of the corresponding industry in that year to measure the deviation of the capital structure. In order to avoid the problems brought by heteroscedasticity, the indicators measured by absolute amounts in the regression model are all standardized with the total assets in that year. In the mature capital markets of foreign countries, CEOs are the very ones who control the managerial power, mainly referring to the decision-making power. In our country, the same situation occurs when the chairman of the board in a company also holds the general manager post at the same time so that the decision-making power and the executive power are highly unified. Meanwhile, according to the Company Law of the People's Republic of China, the chairman of the board is the legal representative of the company. When the director board meeting is not in session, the chairman is supposed to exercise part of the power

for the board of directors, and thus he will inevitably intervene in the corporate execution and decision-making process. Considering the above governance features, the paper defines two variables, namely Leader (measured by whether the chairman also holds the general manager post at the same time) and Chairshare (measured by the shareholding ratio of the chairman) to measure the managerial power.

Besides, the paper uses ROE (return on equity) to measure the performance of the company. Meanwhile, here the size (Size), the ratio of the fixed assets to its total assets (Fix), the operating cash flows (Cf), the age (Age) and the growth (Growth) of the company are defined as control variables for the regression model. In **Table 1** are shown the definitions and the calculation of all the variables.

Based on the prior research, the following regression model is established.

$$\text{Lev}_{i,t} = \beta_{0+}\beta_1\text{Power}_{i,t} + \beta_2\text{Size}_{i,t} + \beta_3\text{Fix}_{i,t} + \beta_4\text{Cf}_{i,t} + \beta_5\text{Age}_{i,t} + \varepsilon \quad (1)$$

$$\text{ROE}_{i,t} = \beta_0 + \beta_1\text{Lev}_{i,t} + \beta_2\text{Lev}_{i,t} * \text{Power}_{i,t} + \beta_3\text{Size}_{i,t} + \beta_4\text{Growth}_{i,t} + \beta_5\text{ROE}_{i,t-1} + \varepsilon \quad (2)$$

#### 4. Data Analysis and Result Explanation

The research uses panel data models, and verifies that the random effect model needs to be used through the Hausman Test. Corresponding coefficients are tested by Z-test. As shown in **Table 2**, the management board centralization and the chairman's absolute shareholding ratio are both significantly positively related to the deviation of leverage ratio (AdLev), the deviation of ratio of liabilities with interests (AdIn\_lia) and the deviation of short-term liability ratio (AdSht\_lia). And the regression coefficients is 0.0004 and 0.051, 0.002 and 0.018, 0.001 and 0.003, separately. The significantly positive coefficients indicate that ceteris paribus, the stronger the managerial power is, the more deviated the capital structure is from the optimal one, and therefore, prove that the stronger managerial power will lead to irrational capital structure decisions.

As shown in **Table 3**, the coefficients of the variables for the capital structure dimension (AdLev, AdIn\_lia, AdSht\_lia) all have a negative sign, which indicates that the deviation from the optimal capital structure will lead to a discount of the firm value. The paper pays attention to the sign of the multiplicative interaction term by the managerial power variables and the capital structure variables. When the deviation of leverage ratio (AdLev) is used to measure the capital structure deviation, the coefficients of the two multiplicative interaction terms (AdLev \* Leader, AdLev \* Chairshare) are -0.022 and -0.429 with the significant level at 10% and 1% respectively; when the deviation of ratio of liabilities with interests (AdIn\_lia) is used, the coefficients are -0.004 and -0.451 with the significant level at 10% and 5% respectively; when the deviation of short-term liability ratio (AdSht\_lia) is used, the coefficients are -0.015 and -0.374 with the significant level at 10% and 10% respectively. The regression results indicate that ceteris paribus, the stronger the managerial power is, the stronger the discount effect of the deviation of the capital structure is.

**Table 1.** Definition and calculation of all variables.

Variable Name	Definition
AdLev <sub>i,t</sub>	AdLev <sub>i,t</sub> =  Lev <sub>i,t</sub> - Median of Lev <sub>i,t</sub> in the industry , Lev <sub>i,t</sub> = the leverage ratio of company i in year t.
AdIn_lia <sub>i,t</sub>	AdIn_lia <sub>i,t</sub> =  In_lia <sub>i,t</sub> - Median of In_lia <sub>i,t</sub> in the industry , In_lia <sub>i,t</sub> = Liabilities with interests/Total assets
AdSht_lia <sub>i,t</sub>	AdSht_lia <sub>i,t</sub> =  Sht_lia <sub>i,t</sub> - Median of Sht_lia <sub>i,t</sub> in the industry , Sht_lia <sub>i,t</sub> = Short-term liability/Total assets of company i at the end of year t
ROE <sub>i,t</sub>	ROE <sub>i,t</sub> = Net income/Average owners' equity of company i in year t
Leader <sub>i,t</sub>	Equals 1 if the chairman also holds the general manager post in year t.; equals 0, otherwise.
Chairshare <sub>i,t</sub>	Chairshare <sub>i,t</sub> = chairman's shareholding ratio in year t
Size <sub>i,t</sub>	Ln(Total assets of company i at the end of year t)
Fix <sub>i,t</sub>	Fixed assets/Total assets of company i at the end of year t
Cf <sub>i,t</sub>	Net operating cash flows/Total assets of company i in year
Age <sub>i,t</sub>	The number of years since going public
Growth <sub>i,t</sub>	Operating revenue growth for year t

**Table 2.** Managerial power and capital structure.

Lev <sub>i,t</sub>	AdLev <sub>i,t</sub>		AdIn_lia <sub>i,t</sub>		AdSht_lia <sub>i,t</sub>	
Constant	0.151*** (4.050)	0.145*** (3.870)	-0.009 (-0.280)	-0.010 (-0.320)	0.195*** (7.560)	0.194*** (7.510)
Leader <sub>i,t</sub>	0.0004*** (2.620)		0.002** (2.200)		0.001* (1.680)	
Chairshare <sub>i,t</sub>		0.051* (1.710)		0.018*** (2.880)		0.003** (2.380)
Size <sub>i,t</sub>	-0.001 (-0.610)	-0.001 (-0.530)	0.005*** (3.270)	0.005*** (3.290)	-0.005*** (-4.160)	-0.004*** (-4.070)
Fix <sub>i,t</sub>	-0.018* (-1.820)	-0.017* (-1.690)	0.035*** (3.950)	0.035*** (3.980)	0.014* (1.890)	0.011* (1.900)
Cf <sub>i,t</sub>	-0.019 (-1.250)	-0.018 (-1.210)	-0.048*** (-3.550)	-0.043*** (-3.530)	-0.056*** (-4.940)	-0.051*** (-4.790)
Age <sub>i,t</sub>	0.001*** (3.370)	0.002*** (3.700)	0.002*** (4.530)	0.002*** (4.530)	0.001* (1.820)	0.001* (1.730)
Wald Chi <sup>2</sup>	20.33	23.28	66.63	66.88	41.32	41.11
Hausman Chi <sup>2</sup>	7.22	7.45	8.02	8.52	5.02	5.82

**Table 3.** Value effect.

ROE <sub>i,t</sub>	AdLev <sub>i,t</sub>		AdIn_lia <sub>i,t</sub>		AdSht_lia <sub>i,t</sub>	
Constant	-0.180*** (-5.160)	-0.192*** (-5.470)	-0.195*** (-5.560)	-0.207*** (-5.880)	-0.169*** (-4.830)	-0.176*** (-5.020)
Lev <sub>i,t</sub>	-0.082*** (-5.030)	-0.087*** (-5.430)	-0.096*** (-5.290)	-0.102*** (-5.730)	-0.129*** (-5.720)	-0.138*** (-6.260)
Lev <sub>i,t</sub> * Leader <sub>i,t</sub>	-0.022* (-1.750)		-0.004* (-1.850)		-0.015* (-1.780)	
Lev <sub>i,t</sub> * Chairshare <sub>i,t</sub>		-0.429*** (-3.090)		-0.451** (-2.380)		-0.374* (-1.940)
Size <sub>i,t</sub>	0.011*** (6.570)	0.013*** (6.880)	0.011*** (6.990)	0.012*** (7.300)	0.010*** (6.310)	0.014*** (6.490)
Growth <sub>i,t</sub>	0.046*** (18.480)	0.038*** (18.410)	0.045*** (18.290)	0.047*** (18.230)	0.045*** (18.290)	0.047*** (18.230)
ROE <sub>i,t-1</sub>	0.369*** (24.390)	0.366*** (24.170)	0.362*** (23.880)	0.361*** (23.730)	0.363*** (24.000)	0.362*** (23.940)
Wald Chi <sup>2</sup>	1075.07	1087.76	1065.31	1073.16	1084.04	1089.12
Hausman Chi <sup>2</sup>	9.00	7.33	7.17	7.42	6.31	5.55

## 5. Conclusions and Suggestions

The paper studies the influence of the managerial power on the company capital structure using the data from the listed companies in the Shanghai and Shenzhen A-share market in China. From the perspective of managerial power, the paper borrows the analysis framework for the power controller's psychological mechanism by Fast *et al.* (2012) [3], and points out that the centralization of the managerial power will lead to overconfident financing decisions made by the management board so that the capital structure will be the sub-optimal one, deviated from the optimal one. Meanwhile, the paper analyzes how the managerial power impairs the firm value by affecting the capital structure decisions, which provides empirical evidence for investors to identify the dynamic features of managerial power financing and its influence on the firm value.

The research has found that *ceteris paribus*, the stronger the managerial power is, the more deviated the capital structure is from the optimal one, and the stronger the discount effect is. As suggested in this paper, when evaluating the investment value of a company's stocks, investors should concern for not only the indicators for the capital structure, but also the power execution features of the organization, and pay attention to the influence of the managerial power on the decision making process and the influence of the power distribution on the deviation of the capital structure from the industry target in order to make a reasonable prediction for the firm performance in the future.

## References

- [1] Modigliani, E.F. and Miller, M.H. (1958) The Cost of Capital, Corporate Finance and the Theory of Investment. *The American Economist*, **48**, 261-297.
- [2] Jensen, M.C. and Meckling, W. (1976) Theory of the Firm, Management Behavior, Agency Costs and Ownership

- Structure. *Journal of Financial Economics*, **3**, 305-360. [http://dx.doi.org/10.1016/0304-405X\(76\)90026-X](http://dx.doi.org/10.1016/0304-405X(76)90026-X)
- [3] Fast, N.J., Sivanathan, N.S., Mayer, N.D. and Galinsky, A.D. (2012) Power and Overconfident Decision-Making. *Organizational Behavior and Human Decision Processes*, 249-260.
- [4] Hackbarth, D. (2008) Managerial Traits and Capital Structure Decisions. *Journal of Financial and Quantitative Analysis*, **43**, 843-882. <http://dx.doi.org/10.1017/S002210900001437X>
- [5] Malmendier, U., Tate, G. and Yan, J. (2009) Managerial Beliefs and Corporate Financial Policies. USC FBE Finance Seminar.