

A Review of the Influence of Ownership Structure on Capital Structure

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Abstract: The main content of this paper is the analysis of the influence of ownership structure on capital structure and the summary of some scholars in the past on this aspect of research. This article added some private perspectives and came to the conclusion. Bebchuk, Du and Dai, Nor and Ariffin, Boubaker, Driffield, Friedman, Bany, Boubakri and Montreal have provided significant academic support for this paper, using a variety of regression models and structures to conduct data sampling in different regions and come to quite authoritative conclusions. This article also presents basic information about the subject, such as the purpose of changing the ownership structure and how it works, and an explanation of some of the professional names mentioned in this article.

Keywords: capital structure, ownership structure, CMS, tradeoff

1. Introduction

The capital structure refers to the capital composition and proportion of the company, mainly including the ratio of assets to liabilities, debt to equity, and asset to equity ratio.

According to the related theory of capital structure (the MM theorem, tradeoff model, the optimal capital structure theory, the optimal sequence financing theory, etc.) can be summarized most of the factors associated with capital structure, such as tax, legal environment, financial distress cost and agency cost, information asymmetry and transaction cost, distribution cost of financing, the uncertainty of operating income, the type of assets, the perfect degree of the market, Company size, company dividend policy, company control, industry competition, and ownership structure, etc. Among these factors, the influence of ownership structure on capital structure is what we will discuss in this paper.

If the firm raises finance, though, the capital structure of the firm, becomes debt dominant. However, this does not affect the ownership of the firm. It is still 100% owned by the firm. This is because loans do not affect the ownership of the firm. If the firm raises money through issuing equity, some ownership of equity holders become dissolved, and different stakeholders would have ownership.

Even though debt does not affect the structure of ownership in the firm, the main difference is that interest needs to be paid on the loan. But the tax shield theory allows them to avoid some taxes. However, the return structure is different for equity and debt (Figure 1):

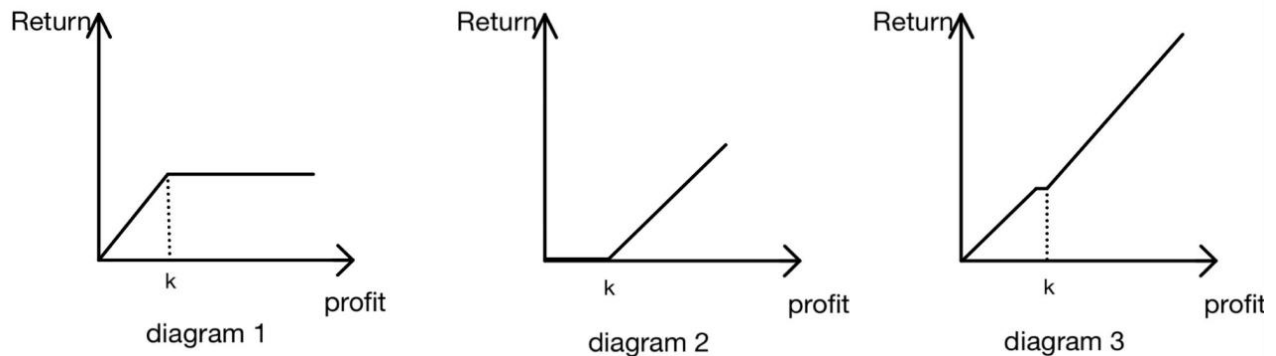


Figure 1: Profit for debt holders and equity holders.

Let us assume that the capital structure of a firm is made of both debt and equity: the payoff structure to the debt holders and equity holders. The biggest difference between them is their risk appetite. This can be shown by the diagram above. Bond holders this is represented in diagram 1, where their payoff is determined purely up to the value of k , after which they do not make excess returns. For equity holders, in diagram 2. Below k , all money goes to debt holders, so they do not make any money until after k . Therefore, there is a conflict of interest between two stakeholders. And diagram 3 is the sum of diagrams 1 and 2.

The debt holders do not want the firm to take excessive risk, this is because it causes the firm to go bankrupt and make them unable to pay the value of k . However, equity holders want more than k and therefore make riskier business for the firm.

The equity is shares bought into the firm, making equity holders part owners in the firm, hence affect the ownership of the firm. Debt does not affect it since the firm merely takes a loan from the bank.

This paper uses different regression models to explain the influence of ownership structure on capital structure. The first one is agency conflict of interest encroachment, Bebchuk proposed the CMS structure to study related impact [1]. Also, Boubaker got different discovery by selecting 377 French listed companies, which the excess control and debt are linearly related [2]. Du and Dai examined nine East Asian economies, analyzed both positive and negative effects of ownership structure on capital structure [3]. Nor and Ariffin examined that the separation of management and ownership affects financial decisions [4]. In addition, Driffield, Friedman, Bany, Attig, Boubakri and Montreal were all involved in the study of capital structure through researching various samples and contribute plenty of capital theories to management [5-9].

2. Definition

The term 'controlling-minority structure' (CMS) was a kind of ownership structure mentioned by Bebchuk, which means that shareholders have more control/voting rights than their equity [1]. This Ownership structure mainly occurs when professional managers or teams run the company.

According to Jensen and Meckling, managers will have incentives to consume perquisites and to adopt investment and financing policies that benefit themselves but harm the interests of outside shareholders [10].

The standard financial theory holds that the sole purpose of a corporation is to maximize shareholder wealth. Therefore, Control Structure (CS) deals with agency conflicts between managers and outside capital providers, such as shareholders. The number of those conflicts is usually greater and more frequent in the corporate ownership structure because of the greater number and identity of shareholders, such as insider versus outsider, active versus passive, corporate raiders...

Shareholders can directly or indirectly motivate or threaten managers to maintain their profits through the Remuneration scheme, Supervisory board, Stock market, and Market for corporate control (“Corporate Ownership and Control Structures: An International Comparison on JSTOR”) [11]. The benefits of the Control Structure are that Shareholders' rights and interests are protected, but the time and economic costs of managing managers are too high.

Although the controlling shareholder structure (CMS) and the control structure (CS) are both separate managers' cash flow rights (CFS) and voting rights, the difference between them is that the managers of the CMS are regarded as shareholders who own part of the equity. In contrast, the managers of the CS are regarded as outsiders. Therefore, the management cost of CMS managers will be lower than that of CS because CMS managers maintain their own rights and interests, which is equivalent to preserving the rights and interests of other shareholders.

A pyramid structure is an organizational structure. In this structure, one leader is on top with increasingly larger tiers of management teams below them (“What Is a Management Pyramid? (And Other Types of Management Structures)”) [12]. The pyramid structure in CMS means that the investor company is the leader, and the subsidiary company is the larger tier of management teams. The investor company will have more equity as an investor, and the subsidiary company will have more control/voting rights as managers.

3. Methodology

3.1. A Brief Summary

Some foreign literature studies on the relationship between corporate ownership and capital structure focus on the impact of capital structure. Some scholars argue that the separation of ownership and actual management of controlling shareholders is positively related to the capital structure, while others hold opposite views. Therefore, most scholars have studied the following hypothesis:

[Assumption 1] H0: The higher level of the separation of ownership and management, the higher the debt ratio of the enterprise.

There are also scholars who study the properties of different owners on the capital structure of enterprises. Some common assumptions of these research are as follows:

[Assumption 2] H0: The debt ratio of family-owned enterprises is higher than that of non-family-owned enterprises.

[Assumption 3] H0: The debt ratio of state-owned enterprises is higher than that of non-state-owned enterprises.

In order to quantify their assumptions and theories, scholars usually choose debt ratio as the dependent variable, which is their consistent choice. However, different scholars have made innovative attempts in the selection of independent variables. Table 1 shows some independent variables with high frequency.

Table 1: Some independent variables with high frequency [6].

sign	explanation
HLD	The percentage of largest shareholders 'ownership.
MSO	The proportion of ordinary stocks.
ASSET	Total assets.
VOLTY	Which can be expressed by the standard deviation, of the annual percentage change in operating income before interest, taxes, and depreciation over the past three years.
RATE	The percentage of the change of the total assets compared with the previous year.
FCF	The operating income before tax+d&a-tax paid-dividend paid.
DEP	The depreciation of capital.
DIV	Dividend ratio.

Some scholars also set control variables as:

FAM- If an enterprise is a family enterprise, Fam=1, otherwise it is 0.

SOE - If an enterprise is a state-owned enterprise, SOE=1, otherwise it is 0.

In terms of data selection, more scholars use panel data or cross-sectional data, and few scholars use time series data.

3.2. A Detailed Analysis

From the perspective of agency conflict of interest encroachment, scholars studied the impact of ownership structure on capital structure selection.

Bebchuk proposed the CMS structure, which holds less cash flow rights but has control over the company [1]. The CMS structure lacks the agency costs that limit other ownership structures. Unlike a decentralized ownership structure, the controllers of a company with a CMS structure do not face either proxy fights or hostile takeovers. Nor is it an entrenched controlling shareholder, as in the CS structure. The increase of shareholding ratio can reduce the decision cost of controller. But CMS structure will increase agency cost from three aspects. First of all, when choosing investment projects, the actual managers tend to choose the investment projects that have low value for the owners but can bring high returns to the managers. Secondly, with the decrease of CFR, the number of inefficient decisions will multiply, and the adverse consequences of inefficient decisions will spread to a very wide range. Third, as the CFR dwindles, the principle of equal opportunity prevents the effective range of trading from expanding. In fact, when the internal controller can obtain significant private benefits, even if the transaction brings a large number of potential benefits, the controller will not choose to trade. However, CMS structures can also slow down agency costs due to the legal protection of minority shareholders and the influence of controlling the company's reputation.

Du and Dai empirically tested the impact of corporate ownership structure on capital structure selection in 9 East Asian economies and proposed that ownership structure has positive and negative impacts on capital structure [3]. The beneficial effect mainly refers to the non-dilution effect of debt equity. Adverse effects mainly refer to asset transfer effects. The research results support the beneficial effect that companies with large separation of control rights and cash flow rights tend to use more debt financing.

Nor and Ariffin examined whether the separation of management and ownership of listed companies in Malaysia would affect their financial decisions [4]. They found that the higher the degree of separation caused by the pyramid structure, the stronger the motivation of the actual controller to carry out debt financing. This did not take into account the risks brought by increased

debt, which was to prevent its equity from being diluted. The regression results support the "non dilution effect of equity" of debt, that is, they will have a higher debt ratio.

Boubaker selected 377 French listed companies as samples to test the mechanism of debt in CMSs [2]. Different from the previous discovery that excess control and debt are linearly related, scholars found that they are non-monotonic. In fact, evidence from the French market shows that debt limits the interest encroachment of companies with low separation of two rights, and if the separation of two rights exceeds the critical value of 10.2%, it will make such corporate interest encroachment easier. Moreover, they also found that for those companies with high level of separation of two rights, if one company has the second largest controlling shareholder who can obviously challenge the power, debt will limit the interest encroachment of such companies, and such companies have relatively high debt levels. The results also show that French financial institutions can effectively predict the vulnerability of corporate interests to encroachment (group affiliation or greater separation of two rights) and sharing control rights in CMSs is a guarantee to mitigate interest encroachment.

Different countries may have different ownership structures. Some scholars have studied the special ownership structure of a country.

Driffield selected the four East Asian countries (Indonesia, South Korea, Malaysia and Thailand) most seriously affected by the 2008 financial crisis for research [5]. They used panel data for three-stage least squares regression. The results show that the degree of separation of ownership and management in the four countries is positively related to the debt ratio. Their research has proved such a conclusion: the overall impact of the separation of two rights (incentive effect, encroachment effect, risk aversion effect) on the capital structure of East Asian family businesses is positive. Except for Malaysia, the separation of ownership and capital structure of nonfamily businesses are negatively correlated, and Indonesia is significantly negatively correlated at the level of 10%. These scholars speculate that the effects of interest encroachment and risk aversion may have less impact on the capital structure [13]. If the regulatory mechanism is effective (but expensive), the positive and negative impacts may offset each other, so the net impact may not be significant.

Pyramid structure, as a common ownership structure, has also led scholars to study its relationship with the choice of capital structure.

Friedman conducted multiple regression with 9 Asian countries as samples [6]. They found that the pyramid structure supported the improvement of debt level even though scale, profitability and the ownership of growth groups were taken as control variables. Pyramid companies are more likely to encroach on interests through tunnels, probably because it is cheaper for the controller to convert company resources into their own interests.

The empirical results of Bany show that the pyramid structure strengthens the controller's motivation of interest encroachment, resulting in an increase in debt [7].

Some scholars' research shows that the different nature of the controller leads to different financing decisions. Attig considered the information asymmetry, used the method of multiple linear regression to test the relationship between ownership and stock liquidity [8]. His research shows that the bid-ask spread of family businesses increases with the increase of the separation of ownership and management; However, the data of non-family businesses give the opposite conclusion. But this result is not significant. This result shows that in family businesses, the opportunistic behavior of large shareholders encroaching on the interests of small shareholders is relatively obvious, which increases the degree of information asymmetry, thus increasing the bid ask spread, and ultimately leading to an increase in the cost of enterprise capital.

Boubakri and Montreal took ownership structure as an internal corporate governance variable and studied its impact on bond cost and bond rating. A significant positive correlation between family-owned enterprises and debt cost is shown [9]. But there is a significant negative correlation between family-owned enterprises and bond rating. Public-owned institutions are positively correlated with

level of debts and have less impact on the costs of issuing bonds. State-owned enterprises have less influence on either bond cost or level of debts. This shows that family controllers are more likely to encroach on interests. In addition, in order to avoid dilution of equity, family businesses tend to choose debt financing rather than equity financing, resulting in higher debt leverage.

4. Conclusions

By summarizing these essays, we can find these conclusions as below.

Firstly, the separation of control right and cash flow right of the controller is widespread. However, there are more or less differences in the degree of separation of the two powers in different countries. Its influence on the choice of capital structure is also different. Scholars have found that the pyramid structure has the effect of magnifying financial leverage. Secondly, domestic and foreign literature confirms that the nature of the ultimate controller will have an impact on bond costs, bond ratings and stock liquidity. These are closely related to corporate financing policies, especially capital structure, but empirical literature on their impact on capital structure selection is still rare. In addition, due to the different nature of the controller, its incentive mechanism may be different when choosing the capital structure, resulting in different choices of capital structure. Therefore, it is necessary to explore the governance effect of the nature of the ultimate controller on the capital structure. My team will make more efforts in this regard in the future. What's more, the separation of the control rights and management right of the controller will affect the agency conflict between the ultimate controller and minority shareholders. Only a few foreign mathematicians have studied the impact of the separation of control and management rights on the capital structure of family-owned enterprises and have not found any significant evidence of its impact on the debt ratio. This will also be the direction my team will be interested in in the future.

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