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The revelation of the development of capital structure theory to Chinese enterprise financing decision

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ABSTRACT

As capital structure is one of the core issues of corporate financial policy, Capital Structure Theory (CST) has also become one of the core issues of corporate financial policy. With the constant efforts of economists since 1950, the theory's research depth and research scope has made great development and even exploited to a broader field especially after the introduction of agency cost theory, information asymmetry theory, etc. since 1970. First of all, the article reviewed the development process of modern CST. It analyzed four reasons of China's financing difficulties which were the fuzziness of definition of state-owned capital property right, the insufficiency of effective mechanism of incentive and constraint, the influence of the long-term low depreciation rate policy, and the hysteresis of institutional investors development due to the underdevelopment of capital market. Then the article brought up four suggestions those are focusing on debt financing preference, relaxing rate control for a floating interest rate, developing capital market to promote direct financing, and adjusting financing structure to adapt to enterprise development. Finally, it arrived at a conclusion that China's enterprise would gradually prefer debt financing rather than equity financing as the increasing liberalization of capital market in China and financing behavior would also conform to the modern CST.

KEYWORDS

Measure capital structure theory; Corporate finance; Financing decision of China's enterprise.

INTR18DUCTION

00000i00000Structure refers to the sources of all kinds of long-term capital including long-term debt capital & equity capital and their proportion to the total capital. Hence, Capital Structure usually refers to the ratio of long-term debt capital and equity capital[1]. The problem of corporate capital structure is the basic research subject of finance and economics. Many western scholars were committed to research early and had achieved fruitful results which formed CST gradually. The development of CST mainly divided into three stages and progress gradually, which are the traditional CST, the old CST and the new CST. In different stages of development, a lot of small branches also existed according to the different research emphasis and method. Through combing the development of the CST, we could make further research and exploration in the situation of clearly understanding it. Finally, the point of the analysis of corporate capital structure is understanding how the change of proportion of debt capital and equity capital would influence corporate value, adjusting suitable enterprise's capital structure constantly and achieving the goal of enterprise’s value maximization and shareholders’wealth maximization. For China, with the deepening of the development of Chinese market economic system reform, the ownership and property rights of enterprise assets would be separated. Accordingly, the investors of enterprise would be national, collective, personal, or even more elements. Enterprise had many different sources of funds due to various financing activities when entering the market, hence, the contradiction of its own capital and debt also existed. If not avoided and solved reasonably, it could seriously hinder the development of China's enterprises. Rational developing the capital structure theory and combining it with China's concrete situation has very high reference value for solving problems of the existing enterprise financing confusion and unclear property right relations, etc.

THE DEVELOPMENT OF THE EARLY CAPITAL STRUCTURE THEORY

Description of CST

Corporate Capital Structure (CCS) refers to the related proportion of debt and equity in the enterprise financial structure. It expounds the relationship of the corporate debt, the enterprise value and the cost of capital. The broad sense of CCS represents the main right of an enterprise referring to all the composition of capital value and their proportion[2] which include not only the long-term but also the shot-term capital especially the short-term debt capital. While the narrow sense of CCS only refers to the long-term capital value and their proportion, that is, the composition proportion of debt capital and equity capital of long-term capital.

Based on the aim of maximizing the enterprise value and shareholder wealth[3], Corporate CST emphasizes how the changes of ratio of medium and long-term debt capital to equity capital of the enterprise capital structure would influence the enterprise value, and try to find the most suitable financing ways and financing tools at the same time.

Early capital structure theory

The Early CST mainly includes the Net Income Theory, Net Operating Income Theory and Traditional Compromise Theory before 1950s. From the content point of view, many standpoint of the early CST were just inferred, put forward from the visual Angle or scattered views of some scholars on certain aspects of capital structure. They did not process theoretical integrity and systematicness as it did not form a complete theoretical system. From the method point of view, early standpoints of research on capital structure problem were basically simple statement on the certain facts, without or lack of internal analysis. Early capital theory did not establish theoretical logic model to demonstrate strictly, lacked sufficient experience and statistical analysis to support, and lacked empirical support and practical significance, and failed to do further research and development[4]. However, the early CST still could be treated as the beginning of the research of CST as it focused on the enterprise capital structure arrangement and the enterprise value.

Net Income theory (NIT)

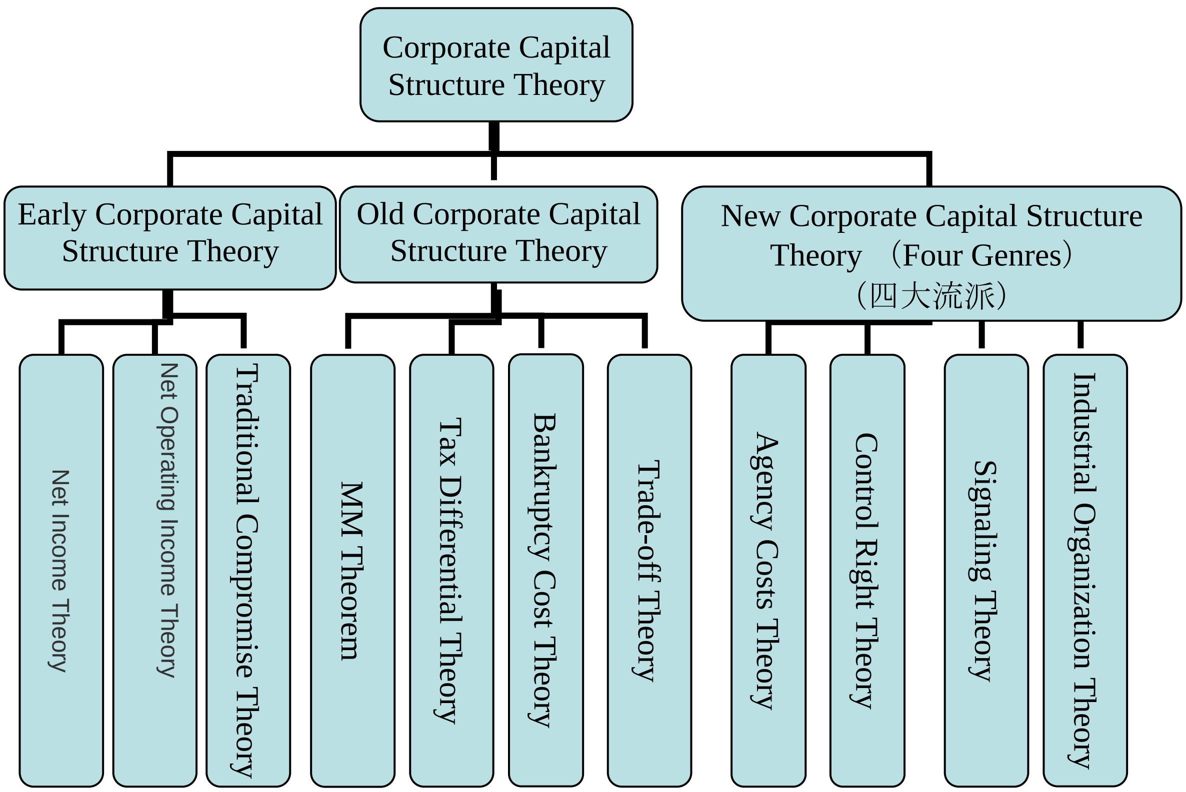
The NIT means the lowest weighted average cost of capital existed when the debt financing reached 100%. Therefore, the theory insisted that using debt financing was always beneficial as it could reduce the comprehensive cost of capital of enterprise. The more the debt financing in the whole capital of enterprise, the closer the comprehensive cost of capital to the cost of debt which was usually generally low. Therefore, the higher the debt level, the lower the cost of comprehensive capital, the greater the enterprise value[5]. When the debt ratio reached 100%, the firm would achieve the maximum value. Nevertheless, the theory was hard to set up in practice. First of all, the financial risk would increase as the increase of debt capital. Accordingly, rational shareholders would require higher investors’expected return rate for enterprises (that is, the shareholders' cost of capital). Besides, due to the increase of debt, the creditor's debt security degree would decline and the risk would increase,the fixed rate which the enterprise could financing unlimitedly at would increase definitely. This was an extreme capital structure theory which considered the financial leverage interests, while ignored the financial risk.

Net operating income theory (NOIT)

NOIT believed, No matter how financial leverage changed, the weighted average cost of capital of the enterprise were fixed, hence the total value of enterprise was fixed as well. Because when companies used financial leverage to increase debt ratios, although the debt cost was lower compared to equity cost, the weighted average cost of capital would remain unchanged instead of decrease as a result of increasing debt raising the risk of equity capital as well as the cost of equity. Therefore, the enterprise cannot take the advantage of financial leverage to change the weighted average cost of capital, nor improve the enterprise value by changing the capital structure. Capital structure has nothing to do with enterprise value while the determinant should be its operating income.

Traditional compromise theory (TCT)

TCT was a compromise theory between NIT and NOIT believing although using financial leverage would lead to the rising equity cost, it would not completely offset the benefits gained by the low debt cost rate in a certain degree, thus can make the weighted average cost of capital decrease and the enterprise value increase. However, excessive use of financial leverage might rise the weighted average cost of capital as the rising equity cost would no longer be offset by the low debt cost. Later, the cost of debt would rise too and make the weighted average cost of capital to rise faster together with the rising equity cost[6]. In that way the line of weighted average cost of capital presented the U-shaped structure. The turning point of the weighted average cost of capital was the lowest point in which the debt ratio represented the best capital structure.



THE DEVELOPMENT OF THE NEW CAPITAL STRUCTURE THEORY

Since 1970s, economists have utilized modern analytical tools such as game theory, information economics, and principal-agent theory to analyze the capital structure. A series of new ideas with variant genres explaining the capital structure have arisen at the historic moment. The New CST turned its perspective to research the endogenous institution and structural factors of enterprise, and produced the following four main theories.

Agency costs theory (ACT)

Managers of modern company do not hold all of the stake in the company which is the separation of corporate ownership and control, resulting in the agency relationship between the managers and shareholders[7]. The agency relationship produces conflict of interest between shareholders and managers: when operators bearing the full cost of the effort to manage, they would only acquire part of the benefits from the effort. In consequence, the operators might pursue on-the-job consumption. From the other point of view, agency relationship also exists between creditors and shareholders. These two kinds of agency relationship will generate additional cost, thereby influence enterprise financing decisions, resulting the ACT.

Signaling theory (ST)

From the point of view of information economics, ACT is the study of the ex-post moral hazard problem, while ST is the research of ex-ante adverse selection problem[8]. ACT mainly discusses the incentive problem of reducing moral risk, while ST studies the signal functions of capital structure for investors.

ST investigates how the enterprise send the signals of enterprise value to the market through appropriate method in the case of information asymmetry, so as to affect the investors'decision-making. There are basic two signal method, one is transferred through debt ratio and the other is through the shareholding proportion of insiders.

Control right theory (CRT)

Corporate Control Right Theory mainly studies the effect of the competition results of capital structure to control right, bringing the difference of the enterprise value. The biggest difference of CRT from ACT is that the enterprise cash flow are fixed under ACT, thus creditors have fixed income, while shareholders only have residual claims and control right haven't get enough attention[9]. Some financial economists had put forward an idea that certain incentives to the manager could affect the degree of hard work and business decisions of them which would affect the company's cash flow and ultimately affect the value of the company. However, the control right here could not be transferred while CRT stress that control could transfer between creditors and shareholders.

Industrial organization theory of capital structure (IOT)

In mid and late 1980s, IOT began to appear the trend of fusion with CST. On one hand, IOT began to introduce the capital structure into product competition strategy analysis, considering the influence of capital structure to the companies' investment ability, the pricing behavior of products and performance in market competition[10]. CST, on the other hand, also began to research the influence of product characteristics and the market competition structure to enterprise capital structure, forming the strategic corporate financial theory.

THE ENLIGHTENMENT OF DEVELOPMENT OF CST

The development of CST is closely related to the development of the theory of economics and finance

The early CST was discrete and unsystematic. With the introduction of Marshall's equilibrium in neoclassical economics, the "no arbitrage" analysis method proving the "irrelevant proposition ", the analysis framework for the asymmetric information caused by the rise of information economics, the market for corporate control theory, modern enterprise theory, industrial environment theory, etc., especially the great enlightenment research results and methods of new institutional economics and information economics have given to CST[11], financial economists took a large number of reference to the latest research results and methods of economics to promote CST to jump out of the original research framework, which produced the new capital structure theory such as the agency theory of capital structure, signaling theory, control right theory, pecking order theory[12], thereby contributing to the development of CST.

The evolution of CST embodies the scientific spirit of "negation of negation"

This is not only reflected in the MM theory itself, evoluting from the original irrelevance theory to the relevance theory of correction theory then to the irrelevance theory of Miller model, but also in the successive rises of all kinds of genres and their intense debates. Since 1958, especially after 1970, almost every piece of valuable literature would incurred a series of debates. More interestingly, some extraordinary financial experts such as Miller and Myers would deny themselves with the deepening of the research and optimize their analysis model continually, even would fix their academic point of view.

The evolution of CST confirms a study mode with loosening assumptions

The study of economics has a traditional mode verifying by the development of CST[12], which is concluding a benchmark theorem based on a set of perfect assumptions at first, then relaxing restrictions constantly, as the research deepens, the conclusion that close to the real world would come out gradually. The CST analysis were based on certain assumptions that is both the highly abstraction and generalization of the real economy and the precondition of theoretical model and theoretical research. Relaxing the conditions to make the theoretical research correspond to the real economy and highlighting the dynamic analysis framework are the goal chased by the capital structure theory. For example, the first MM theory assumed that the market was perfectly competitive and perfect without bankruptcy cost, asymmetric information nor tax. MM Company added the corporate income tax then. Miller model added individual income tax and New CST added the analysis framework of asymmetric information. Post CST had introduced some other broader interpretation after that. With the relaxing assumptions of the capital structure theory, the theoretical research had moved closer to the reality although the variety of theoretical research focused differently.

CST has not been supported forcefully by empirical validation

Early CST was lack of rigorous theoretical demonstration and mathematical derivation while in the stage of modern and new CST[13], the use of the mathematical model became more perfect and complex. However, the evidence from empirical research has been inadequate and weak. Modigliani, Miller and empirical genres have been devoted to the empirical research on CST but little could help. On one hand, the evidence MM theorem often cited focused on electric power and railway industries, not to mention the disadvantages of obvious "cluster", whether the industry was in line with the assumptions of perfect competition in the MM theorem was also questionable. The empirical evidence of empirical genres, on the other hand, only revealed the existence and the size of the independent variables (bankruptcy costs), while turned into the mathematical deduction in the research of its relation with the dependent variables (the cost of capital and the enterprise value).

The differences between China and western countries

The background of most research of CST was the western companies, especially the enterprises in developed countries represented by America. Therefore the applicability of the theory should be identified subject to country, industry, enterprise features, and many other specific situations[14]. Preparing to use CST as guide of China's problems, China's economists should utilize the research method and idea of the Modern Capital Structure Theory, and discover Capital Structure Theory of China base on the national circumstances.

THE ANALYSIS OF PRESENT FINANCING SITUATION AND REASONS OF CHINESE ENTERPRISES

The financing problem is one of the bottleneck of the management and development of Chinese listed companies for a long time. In addition to the poor financing channel, disordered financing ways and impropriate financing decision are all crucial problems. Some companies excessively depended on foreign debt financing without of internal accumulation[15], making the blind expanding companies indebted and the management unsustainable. Some company relied on equity financing for the long-term financing source after listed. Some companies could not develop full-fledged as the extreme conservative operating thought and neglect of external finance. These above-mentioned problems have severely affected the healthy development of enterprises in our country.

Here are the specific financing difficulties of Chinese Enterprises:

The fuzziness of property right definition of state-owned capital

The property rights of both the state-owned commercial Banks and state-owned enterprise belong to the country, making the real debt-creditor relationship not exist. Enterprises don't have to worry about the threat of their own prestige and development if not repaying on time, therefore they do not bear inner pressure of reimbursement and self-discipline. Instead of a hard constraint, bank debt has turned into a soft budget constraint in our country[16]. At the same time, due to delimitation of property rights of state-owned capital, the cost of equity financing which should be high is much less because of its few constraints and its low actual cost, thus becoming the preferable financing way for the listed companies in China[17]. Therefore, under the financing structure arrangement of Chinese enterprises, the exogenous financing is relatively less.

The lack of effective mechanism of incentive and constraint

The choice of financing method has a very important influence on corporate governance structure. Because of the unclear principal-agent relationship of listed companies in our country, the problem of owners phantom and no real governance structure that make the committee of shareholders, the board of directors, the board of supervisors and operators check and balance, the operator only have residual control without residual claims which would lead the operator to make adverse selection and further the company control efficiency is low. In that way they tend to choose exogenous financing.

The effects of long low depreciation rate policy

China has very strict rules for the selection of depreciation method for fixed assets. Apart from some industry with high technology content and fast technical progress can use accelerated depreciation method, generally the average life method should be used. In addition, the depreciation period of fixed assets in China is relatively long, which result in a serious shortage of provision of depreciation in Chinese enterprise and finally lead to a limited endogenous financing ability.

The undeveloped capital market and the lagging development of institutional investors

At present, China's capital market development is imperfect and lack of financing tools. Besides, the development of bond market in our country is slow. The capital market is not strong enough to solve the agency problem. Investors could not rely on the market to carry out effective supervision for enterprises. Otherwise, in the mature capital markets abroad such as the United States, the trend of corporate governance structure is market management. The institutional investors who could both achieve income for investment and effectively reduce the agency cost can influence the governance of listed companies.

THE ENLIGHTENMENT OF CAPITAL STRUCTURE THEORY FOR THE RATIONAL FINANCING OF LISTED COMPANIES IN CHINA

Produced in the environment of western mature market economy[18], the conclusion of Capital Structure Theory was not completely suitable for the development of the enterprises in China. However, CST still has important enlightenment and theoretical and methodological significance for the financing problems of Chinese listed companies as it’s a product of the economic marketization.

Follow the preference order and pay attention to debt financing

Although each genre’s view for financing structure is different, the enterprise financing structure affect the market value of the enterprise. According to the theory of optimal sequence of financing, the first should be internal financing, then debt financing, the last equity financing. China's enterprises should consider tax effects of debt financing when financing. The market value of enterprises are positively correlated with the proportion of debt financing, except when the debt financing exceed a fixed-point, then the increasing bankruptcy cost and agency cost would offset the tax savings interest. Therefore, enterprises should make full use of the advantages of indebtedness and keep a certain proportion of debt. Secondly, the incentive of debt financing on the manager's is more than that of equity financing. Corporate can reduce the agency cost caused by the separation of ownership and control by borrowing. Only under the larger debt pressure, managers would be forced to work hard thereby improving the efficiency of management and avoiding bankruptcy. Therefore, sometimes the debt financing is positive signals of high quality to the market, while equity financing is a negative market signals which would not be valued by investors.

Ease rate control and implement a floating interest rate

The biggest characteristic of interest rate system is government regulation in our country. The interest rate differentials of Different category of loan simply reflect the difference of loan time instead of the degree of risk. The direct result of this system is that the more risky the lending market project, the more likely to get a loan, resulting in banks' asset quality almost impossible to control. According to the theory of financing structure, the bond market is the optimal way to determine the interest rate. However, this is difficult to fully implement in our country in short term because not all companies are qualified to issue bonds in the bond market, and the development of the bond market also needs a process. Thus release the interest rate is obviously an ideal way. Whereas limited to the restriction of national overall reform process, release interest rate cannot be done overnight. More feasible approach is that giving a bank a floating range of interest rate in which bank could determine the interest rates themselves, in this way can interest rates reflect the enterprise's financing cost closely.

Develop the capital market and promote the direct financing

For a long time, Chinese enterprise took the indirect financing as the principle thing with less direct financing. The single channel and unreasonable capital structure had led to a slow development of the securities market. The development of capital market in China was structural unbalanced. In this situation, continuing to rely on the bank system to configurate resources centrally was not an efficient way. The development of direct financing, giving the right to make decision back to people is a realistic choice to resolve the above concerns. Capital market is an evaluation market for the enterprise value. How developed of the market has a positive feedback relationship with the constantly improving value of enterprise. Facing an effective market, any decision of enterprise, including decision of financing structure, should be prudent. Scientifically improving decisions would inevitably lead to improvement of the value of company, which inevitably make financing easier further.

Adjust the structure of financing to adapt to the development of enterprise

Enterprise's financing structure should remain relatively stable. While with the expansion of business scale or the change of economic environment, the financing structure should also make corresponding adjustment. The adjustment of financing structure should consider the cost of capital, risk factors, and some other issues. The principle should obey is that term structure and legal responsibility of financing tools’cash outflow should match the expected future cash inflow and risk of enterprise assets, and the current financing demand should match the financing demand of sustainable development of the enterprise. Maintaining financial flexibility and sustainable financing ability should corporate with reducing the cost of financing in order to improve the market value of shareholders. In practice, different nature of the enterprise would have different considerations and focus on the method of financing and the cost of financing. For the robust operating company, the company's future capital expenditure is not large and operating cash flow as well as earnings are relatively stable thus increasing debt won’t significantly affect the company's financial credit rating. In this circumstance long-term debt financing would be adopted to enhance shareholders’value as cost of debt financing is low which usually can meet the general requirements that the financing cost should be less than the return on investment. For high growth companies, the expansion of the business is fast and the expected return on investment is high, at the same time operating cash flow tend to be unstable and financial risk is relatively high. As debt financing can't guarantee the need of capital expansion and business expansion, equity financing would generally be adopted. Although the cost of equity financing is high, once the company's business succeed, the rate of return on investment would be far more than the cost of equity financing, resulting in no damage to shareholders’value.

CONCLUSION

Throughout the development history of the capital structure theory, the recycling relationship between capital structure and enterprise value involved from related to unrelated and then back to be related[19]. However, the latter did not just follow the prior one simply. Instead, it was a complement and in-depth study of the former one through practice and research, as well as constantly finding and solving problems. Traditional capital structure theory did not define the relationship between capital structure and enterprise value adequately while CST defined they were unrelated under several assumptions. Those harsh and unrealizable assumptions, however, provided guidance for subsequent research,and evolved to be the framework of Trade-off Theory and the theory considering the perspective of asymmetric information. Although, problems of the CST is still in debating and exploring so far, they are the development and inheritance of CST. CST is developing fast and has been more close to the reality, more explanatory and stricter in logic as later generations continuously relaxing assumption, raising questions, putting forward new assumption conditions, and reaching new conclusions in view of the predecessors' research hypothesis and conclusion. Applying the conclusion of this paper specific to coconut, it would be found that changes of capital structure will affect the enterprise value and debt financing would be more advantageous to the enterprise relative to equity financing under the condition of effective market which had already be confirmed by the capital structure of enterprises in developed countries under the background of relatively efficient capital market[20]. Caused by the undeveloped capital market in China, the enterprise financing behavior cannot reflected modern CST, and some phenomena even deviated from CST which was decided by the reality of our country as well. With the further improvement and development of capital market, the preference of Chinese enterprise to the debt financing and equity financing would gradually change. When capital market become truly effective, enterprise's financing behavior would conform to the analysis and conclusion of Modern Capital Structure Theory.

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