

# A Literature Review of the Influence of Commercial Credit on the Efficiency of Enterprise Capital Allocation

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## ABSTRACT

The real economy is the main body of high-quality development, and the efficiency of capital allocation is an important manifestation of the development of the real economy. Therefore, it is very important to study the efficiency of capital allocation. As a representative of horizontal finance, commercial credit has a significant impact on the improvement of capital allocation efficiency. In view of this, this article combs the literature on commercial credit and capital allocation efficiency from the following aspects: firstly, by studying the literature, combing the literature on the macro-level, micro-level and economic effects of commercial credit; secondly, the measurement method of capital allocation efficiency And the influencing factors are systematically sorted out, and finally sorted out and evaluated the existing literature on the influence of commercial credit on the efficiency of capital allocation.

## 1. Introduction

The report of the 19th National Congress of the Communist Party of China pointed out that my country's economy has shifted from a stage of rapid growth to a stage of high-quality development. At present, China's economic development has entered the "14th Five-Year Plan" period, and the "14th Five-Year Plan" is a critical period for the comprehensive implementation of high-quality economic development. The real economy is the mainstay of high-quality development, the foundation of a country's economy, the source of wealth, and the foundation of an economic power. The Party Central Committee and the State Council attach great importance to the development and expansion of the real economy, and clearly put forward that "insist on

putting the emphasis on economic development on the real economy". Therefore, solidly promoting the high-quality development of the real economy has become an important strategic task for our country. The efficiency of capital allocation is an important manifestation of the development of the real economy. At present, due to the lagging process of marketization, imperfect financial capital market development, and the objective existence of factor price distortions, production factors cannot be optimally allocated among enterprises based on market principles, resulting in enterprise capital allocation Efficiency is far from the state of optimal capital allocation efficiency<sup>[1]</sup>. In this context, it is of vital practical significance to systematically investigate the factors that affect the efficiency of enterprise capital

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allocation.

Through combing and thinking of frontier research, it is found that there are many factors that affect the efficiency of capital allocation, which are mainly divided into external factors and internal factors. External factors include external capital markets, industry conditions, and government governance levels. Internal influences include company size, information asymmetry and agency issues, internal information structure of the enterprise, and other influencing factors. In the current research, there are few studies on the impact of commercial credit on the efficiency of capital allocation. King and Levine etc.<sup>[2,3]</sup> pointed out that a sound financial system can reduce transaction costs, improve information asymmetry, and thereby improve the efficiency of capital allocation. Finance is endogenous to the real economy and covers two aspects: vertical finance and horizontal finance. Vertical finance refers to the mechanism by which commercial banks and other financial institutions provide investment and financing services to entity enterprises, and the behavior of entity enterprises providing investment and financing to each other on the basis of commercial credit is a horizontal financial mechanism<sup>[4]</sup>. Since the operation of the real economy is a three-dimensional dynamic system of labor, products, information technology and funds intersecting vertically and horizontally, it is difficult for the huge commercial transaction system between enterprises to realize the payment of goods at the same time. Buying on credit is a normal phenomenon. Therefore, horizontal finance plays an important role in the development of enterprises. Commercial credit, as a representative of horizontal finance, is the creditor's rights and debt relationships of enterprises based on credit in the transaction process. It is guaranteed by the industry, information technology, and capital associations between entities, and has the advantages of high efficiency, low risk, and low cost. The good operation of commercial credit is particularly critical to improving the efficiency of capital allocation. Therefore, it is very important to study the influence of commercial credit on the efficiency of capital allocation.

## 2. Research on Commercial Credit

Commercial credit refers to the debt-to-debt relationship formed by delayed payment or advance payment in commodity transactions between enterprises. Meltzer<sup>[5]</sup> first studied the relationship between corporate commercial credit financing and monetary policy, and found that during a period of monetary policy tightening, small and medium-sized enterprises would use commercial credit financing more often due to the unavailability

of bank credit, which was formed indirectly through transactions. Credit redistribution has been implemented to reduce corporate pressure. With this as the beginning, scholars have gradually deepened their research on commercial credit, and their research perspective has gradually changed from a single macro perspective to a macro and micro perspective. The research on commercial credit has also entered a systematic and comprehensive stage.

### 2.1 Research on the Macro Level of Commercial Credit

The research on the macro level of commercial credit mainly focuses on the relationship with monetary policy, and most of them are based on the monetary transmission mechanism and the credit transmission mechanism.

Under the currency transmission mechanism, scholars have conducted research from the perspective of currency and interest rates. Collins<sup>[6]</sup> found that there is a weak substitution relationship between commercial credit and currency, but the specific substitution ratio is difficult to measure. Cumby<sup>[7]</sup> research shows that commercial credit is positively correlated with interest rates, so tightening monetary policy will increase the use of commercial credit, but the correlation is relatively minor. Chen Shenglan and Ma Hui<sup>[8]</sup> research shows that, compared with low-risk companies, high-risk companies have significantly reduced commercial credit after the loan interest rate ceiling is liberalized, and increase commercial credit significantly more after the loan interest rate ceiling is liberalized.

Under the credit transmission mechanism, it mainly studies the relationship between commercial credit and bank credit, and the research conclusions can be roughly divided into two schools: complementary relationship and substitution relationship. Under the theory of complementarity, Cook's<sup>[9]</sup> research shows that considerable commercial credit can win higher bank credit for enterprises. Fan Xiaoyun and Dong Erlei<sup>[10]</sup> studied the influence of commercial credit and bank credit on corporate exports and found that there is a strong complementary relationship between commercial credit and bank credit. The research of Chen Jiyong and Liu Qihao<sup>[11]</sup> draw the same conclusion, they also found that commercial credit has a promoting effect on bank credit, and the promotion effect is more prominent in state-owned enterprises and other enterprises with strong credit financing capabilities of banks, reflecting the promotion of commercial credit on bank credit in corporate financing "Matthew Effect" on the Internet. Under the substitution theory, Meltzer (1960) first

proposed the substitution relationship between the two credit. Nilsen<sup>[12]</sup> also came to the same conclusion that commercial credit financing is part of the monetary policy credit transmission mechanism. When bank credit resources are scarce, commercial credit financing can be used as an alternative financing channel. Lu Zhengfei and Yang Deming<sup>[13]</sup> found that when a tightening monetary policy is implemented, alternative financing theory can explain the large number of companies using commercial credit financing. Rao Pingui and Jiang Guohua<sup>[14]</sup> believe that this substitution relationship will be affected by the nature of property rights, and non-state-owned enterprises have stronger substitution demand. The above research on substitution theory and complementary theory mainly analyzes commercial credit and bank credit as two independent financing channels without paying attention to the possible transformation relationship between the two. The fierce debate between the two theories has also triggered some scholars. A new research perspective has been explored: Burkart and Ellingsen<sup>[15]</sup> believe that the relationship between the two cannot be simply divided into complementarity or substitution, and the specifics should be determined by the company's own conditions. Huang<sup>[16]</sup> revealed the dynamic conversion characteristics between commercial credit financing and bank credit financing through a theoretical model, and proved that the conversion condition is the productivity level of the enterprise: when the productivity of the enterprise is lower than the average productivity of the whole society, there is a complementary relationship between the two; When it is higher than the average productivity of the whole society, it shows a substitution relationship. Wu Na et al.<sup>[17]</sup> based on the theory of signal effects, using the diminishing and distorting signal effects as the reasoning logic, and using the panel threshold model to prove that the two present a secondary structural mutation relationship of substitution-strong complementarity-weak complementarity. Xu Yaozhi and Hua Ying<sup>[18]</sup> studied the dynamic conversion relationship between commercial credit and bank credit based on the perspective of supply chain relations. The study found that with the increase of supplier concentration, the transition from substitution effect to complementary effect appeared, and at the same time, with the increase of customer concentration, the structural mutation characteristics from substitution relationship to complementary relationship and then to substitution relationship appeared.

## **2.2 Research on the Micro Level of Commercial Credit**

The micro level mainly focuses on the study of

motivation of use. According to the existing literature, commercial credit use motives can be divided into two categories: business motives and financing motives.

Operational motives refer to the behavioral response of an enterprise based on changes in market conditions in order to reduce costs, expand sales, and slow down fluctuations in market supply and demand so as to achieve the goal of maximizing profits. Operational motives mainly include promotion, price discrimination, reducing transaction costs, and ensuring product quality. The first two stand from the perspective of commercial credit providers (that is suppliers). The motivation for promotion is that manufacturers provide customers with commercial credit for a certain period of time to stimulate customers' desire to buy and increase sales and profits. The research of Schwartz<sup>[19]</sup> shows that commodities with credit clauses are equivalent to selling at a reduced price, which can achieve the effect of promotion, which is beneficial for enterprises to win in the competition. In addition, bank loans have obvious credit discrimination and scale discrimination, and companies with financing difficulties have to use commercial credit to ease financing constraints. The research of Brennan et al.<sup>[20]</sup> found that although sellers set a uniform selling price on the surface, they provide buyers with low willing prices with commercial credit that allows them to postpone payment, and realize price discrimination through indirect selling at the price. The latter two stand from the perspective of commercial credit recipients (that is, the enterprise itself). The motivation to reduce transaction costs is because commercial credit allows buyers and sellers to return uncertain currency expenditures to a precise time, improving the efficiency of both parties' capital utilization and reducing both parties' transaction cost. Ferris<sup>[21]</sup> found that when commercial credit is not used, companies must keep a large amount of cash to deal with uncertain material purchases, which incurs high cash management costs. After commercial credit is used, regular payments are predictable and manageable. It can reduce unnecessary cash idleness and reduce management costs. In fact, for suppliers, regular cash inflows also reduce their management costs. The motivation for quality assurance is that the use of commercial credit is similar to a guarantee mechanism. After the transaction is completed, if the product has quality problems, the payment can be refused. At the same time, it also serves as a signal to the manufacturer that provides commercial credit, which helps the manufacturer. Increased credibility.

The mainstream theories of financing motives include financing comparative advantage theory and credit rationing theory. The theory of comparative advantage

in financing believes that suppliers have the advantage of obtaining information due to business exchanges between enterprises, that is, the two parties participating in the transaction have more information about each other and can effectively overcome information asymmetry<sup>[22]</sup>. Suppliers also have strong control advantages<sup>[23]</sup> and property recovery advantages (Petersen and Rajan, 1997), that is, suppliers can stop supply or use existing the sales network deals with goods to reduce the risk of default and costs. Therefore, compared with bank credit, commercial credit has a comparative advantage. The two scholars made a systematic and comprehensive summary of the comparative advantage theory of financing, and most of the subsequent related researches are based on these theories. Credit rationing theory believes that the information asymmetry between banks and enterprises will cause problems such as adverse selection and moral hazard. Stiglitz and Weiss<sup>[24]</sup> believe that there are multiple types of borrowers in the market. For large companies, on the one hand, a sound financial disclosure system reduces the information asymmetry between banks and enterprises. On the other hand, a large number of mortgage-backed assets reduces moral hazard and can often obtain bank credit; while small business borrowers even if they are willing to pay high borrowing interest rates may also be excluded from the credit market due to information asymmetry. They can only find another source of financing and use commercial credit as an alternative financing channel to ease financing constraints.

### **2.3 The Economic Effect of Commercial Credit**

As a component of short-term financing, commercial credit does not require collateral guarantees and the participation of third-party intermediaries. It has become the “third financing channel” alongside direct securities financing and bank indirect financing. When companies face the problem of financing difficulty and high financing cost, they can use alternative financing channels such as commercial credit financing to alleviate the financing constraints they face<sup>[25]</sup>. Through quantitative analysis, Shi Xiaojun and Zhang Shunming<sup>[26]</sup> found that commercial credit can alleviate corporate financing constraints. This is because companies with high commercial credit can make full use of the financing effects of accounts receivable and accounts payable, and increase their financing channels in disguise. The research of Lan Yanze and Wei Yidan<sup>[27]</sup> found that as a financing method, commercial credit can alleviate the financing constraints of private enterprises; financial association and commercial credit are alternative, that is, both can alleviate the financing difficulties of private enterprises.

However, under the premise of establishing financial linkages, the effect of commercial credit in alleviating financing constraints is weakened. In addition, because commercial credit can reduce the information asymmetry between enterprises, creditors can better supervise enterprise investment decisions, reduce default risks (Smith, 1987), and promote investment efficiency. Sun Puyang et al.<sup>[28]</sup> found through empirical research that the higher the financing cost of the formal sector, the more prominent the problem of corporate financing constraints, and the more commercial credit can promote corporate investment. The research of Liu Eping and Guan Jingyi<sup>[29]</sup> shows that the increase in commercial credit can restrain the over-investment of enterprises, play a role in debt governance, and at the same time alleviate the problem of under-investment in enterprises, thus realizing the function of two-way governance. Liu Huan<sup>[30]</sup> empirically discussed the role of business credit in corporate governance. The research found that the larger the scale of a company’s business credit, the higher its investment efficiency. Compared with a company with a higher market position, business credit invests in a company with a lower market position. The effect of improving efficiency is more obvious. Finally, the use of commercial credit can adjust the capital structure, optimize resource allocation, and promote corporate performance (Ferris, 1981). Ying Qianwei<sup>[31]</sup> verified the use of commercial credit financing through data to have a significant positive effect on the development of enterprises, and the more serious the financing difficulties faced by financing enterprises, the more obvious the positive effect of this method. From the perspective of commercial credit financing as an alternative financing method of bank credit financing, although commercial credit financing can promote the improvement of corporate performance, research has found that its promoting effect is weaker than the positive effect of bank credit. However, some studies have come up with different conclusions. Zhang Liang and Ma Yongqiang<sup>[32]</sup> show that inefficient investment plays a U-shaped intermediary role between business credit and corporate performance. The acceptance of moderate commercial credit can effectively promote investment and benefit corporate performance; however, too little or excessive use of commercial credit may cause problems such as aggravating corporate financial difficulties or aggravating the blind use of corporate cash flow, resulting in low corporate investment efficiency.

## **3. Research on the Efficiency of Capital Allocation**

### **3.1 Resource Allocation Efficiency**



Resources are the sum of human, material and financial resources in social and economic activities, and are the basic material conditions for social and economic development. With the continuous development of the economy and society, people's needs are increasing day by day, and resources are showing relative scarcity, so they must be reasonably allocated. Resource allocation is the selection of relatively scarce resources for different purposes. Generally speaking, if resources can be reasonably allocated, economic benefits will increase significantly; otherwise, economic benefits will decrease. The classical economist Adam Smith first proposed the concept of resource allocation. Its core point is: the market, the "invisible hand", will spontaneously guide the flow of resources from low-efficiency industries to high-efficiency industries. The configuration of the company has given impetus to social development. Neoclassical economists further proposed under the assumption of "economic man" and "rational choice" behavior that only in a perfectly competitive market environment can the optimal allocation of resources be achieved. Modern economics believes that the market is the most important way of resource allocation, and the capital market plays an extremely critical role in the allocation of resources. In this process, capital first flows to enterprises and various industries through the capital market, and then drives human resources, etc. Factors flow to enterprises, which in turn promotes the development of enterprises and industries. The issue of efficiency was first raised by Frederick Taylor, the father of management, who believed that high efficiency is the basis for employees and employers to achieve common prosperity. Efficiency is the description of the state of resource allocation. It is divided into two levels according to the different subjects of the investigation: one is efficiency in a narrow sense, that is, production efficiency: it refers to the difference between the actual output and the maximum output of a production unit or department under a fixed amount of input. The second is efficiency in a broad sense, that is, the efficiency of resource allocation: it refers to how to allocate limited economic resources among different entities and guide resources to flow into enterprises or industries with high return rates.

The efficiency of resource allocation can be divided into three levels: macro resource allocation efficiency, meso resource allocation efficiency, and micro resource allocation efficiency according to different allocation subjects. Among them, the efficiency of macro resource allocation is to evaluate the allocation efficiency level of a country or economic region from the perspective of society as a whole. The main body of allocation is the

entire country or the capital market, that is, the capital market allocates resources among different industries and different regions; medium resources The main body of allocation efficiency is to focus on a specific area, emphasizing the allocation of resources within the region; while the research object of micro-resource allocation efficiency is aimed at individual units, emphasizing the allocation of resources of each subject in the industry, such as enterprises placing capital in The allocation between investment projects. High-efficiency micro-resource allocation efficiency enables companies to efficiently allocate limited internal resources, make reasonable investments, avoid inefficient investments such as over-investment and under-investment, so as to achieve capital circulation and capital appreciation. This paper mainly studies the efficiency of micro resource allocation, that is, the efficiency of enterprise capital allocation.

### **3.2 The Measurement Method of Capital Allocation Efficiency**

There are three main ways to measure corporate capital allocation efficiency commonly used in the literature, Wurgler<sup>[33]</sup> model, Richardson<sup>[34]</sup> model, and investment sensitivity to Tobin's Q model<sup>[35]</sup>. The quantitative capital allocation efficiency model established by Wurgler (2000) mainly measures the response of capital investment to capital returns. If the investment response coefficient is positive and the data is larger, it indicates that the enterprise allocates internal resources more efficiently. On the basis of this model, domestic scholars made appropriate changes to the model based on the specific conditions of Chinese enterprises. Fang Junxiong<sup>[36]</sup> improved on the basis of the Wurgler model, replacing capital investment with the original value of fixed assets at the end of the year, and replacing the value-added realized by the industry with industrial value-added rate and sales gross margin. Chen Yanli et al.<sup>[37]</sup> also improved the Wurgler model, using the average net profit per share of related industries to measure corporate efficiency, and measuring the efficiency of capital allocation by the sensitivity between net profit per share and the chain ratio of assets per share. Since the choice of independent variables in the model is diversified and subjective, the appropriateness of this measurement method is still open to question. The Richardson (2006) model was originally proposed to measure the efficiency of corporate investment. Therefore, scholars later used the Richardson model to measure the efficiency of capital allocation, which was described by the indirect method of substitution variables. Liu Guangrui et al.<sup>[38]</sup> used the Richardson model to study the relationship between

financial development, informal finance and the efficiency of corporate capital allocation. Yang Zheng et al. [39] used the Richardson model to study the impact of the advancement of interest rate marketization on corporate inefficient investment and corporate capital allocation efficiency. Some scholars also use the marginal Tobin Q model to measure the efficiency of capital allocation. For example, Yang Jinzhi et al. [40] use investment opportunities as a measurement standard to study the allocation efficiency of the group's internal capital market. Shao Yiping and Yu Fengfeng [41] use Tobin's Q as a substitute variable, and then observe whether the value of the enterprise has been promoted as a criterion for measuring the effectiveness of capital allocation. Zhang Xinmin and Zhang Tingting [42] also used the sensitivity of corporate investment to Tobin's Q to measure the efficiency of corporate capital allocation. It is not very accurate and scientific to measure the efficiency of capital allocation only by substitute variables. However, because some of the information disclosure of Chinese enterprises is not perfect, it is difficult to measure the efficiency of allocation by direct indicators. Therefore, most domestic literature still uses substitute variables for research.

### **3.3 External Factors Affecting the Efficiency of Capital Allocation**

#### **The impact of external capital markets on the efficiency of internal capital allocation**

First, the contractability of the external market and the scale of capital allocation affect the efficiency of internal capital allocation: when the degree of contractualization of the external capital market is low and the scale of capital allocation is small, the efficiency of internal capital allocation is higher. With the increase in the contractualization of the external market and the expansion of the scale of capital allocation, the advantages of resource allocation through the external capital market have become more prominent. Secondly, the perfection of the financial capital market will also affect the efficiency of corporate capital allocation. A study by Beck and Levine [43] shows that the development level of the financial market and the efficiency of corporate capital allocation will show a positive correlation, that is, the more perfect the financial market, the more efficient the corporate capital allocation high. Zhang Qingjun and Li Meng [44] found that the level of financial market development and the efficiency of corporate capital allocation will show a positive correlation, that is, the more perfect the financial market, the higher the efficiency of corporate capital allocation. Fan Hongzhong

and Wang Yujie [45] found that the introduction of short-selling as a governance mechanism can effectively alleviate the company's internal principal-agent problem, reduce the information asymmetry between the company and the external capital market, reduce the company's financing costs, and thereby overall Improve the efficiency of corporate capital allocation. In addition, the level of marketization will also affect the efficiency of corporate capital allocation. Xu Weiping and Qin Fengfeng [46] have shown that the process of marketization has significantly improved the situation of capital misallocation and further optimized capital allocation. That is, the process of marketization will promote the flow of less efficient resources from regions to more efficient places. The higher the level of marketization, the higher the efficiency of corporate capital allocation. Han Linjing [47] found that financial marketization did not bring about the improvement of investment efficiency. With the improvement of financial marketization, state-owned manufacturing enterprises received more loan support, but at the same time it also brought pressure from government intervention investment. The efficiency has not been significantly improved. State-owned manufacturing enterprises' excessive encroachment on credit resources also drags down the investment efficiency of non-state-owned manufacturing enterprises, resulting in a phenomenon of "double efficiency loss". The level of external financing costs not only affects the scale of external financing of the company, but also affects the rent-seeking behavior and intensity of department managers. High external financing costs will change the rent-seeking efforts of department managers, resulting in inefficient internal capital allocation [48].

#### **The impact of industry conditions on the efficiency of internal capital allocation**

When faced with unfavorable industry impacts, the company uses a large amount of internal capital to "subsidies" the sector. At this time, it is not based on the investment opportunities of various sectors as the resource allocation standard. In this way, these affected departments can be prevented from closing down and withdrawing from the industry, and avoiding the impact of adverse changes in the industry on the company's profit and loss. If the company invests a large amount of internal "subsidies" on projects with negative net present value, it may lead to over-investment in these sectors, and the company value will therefore decrease [49]; and when the industry situation gradually improves, the company withdraws internal "Subsidies" will increase the value of the company.

## **The impact of the level of government governance on the efficiency of internal capital allocation**

The research of Qi Huaijin et al.<sup>[50]</sup> shows that the level of government governance is significantly positively correlated with the efficiency of corporate capital allocation, that is, improving the level of government governance by improving government efficiency and accelerating the process of marketization can significantly improve the efficiency of corporate capital allocation. The research of Li Yonghui<sup>[51]</sup> shows that the promotion and competition of local government officials will inhibit the efficiency of enterprise resource allocation in the jurisdiction. Compared with non-state-owned enterprises, competition for promotion of local government officials has a more significant inhibitory effect on the resource allocation efficiency of state-owned enterprises in the jurisdiction.

### **3.4 Internal Factors Affecting the Efficiency of Capital Allocation**

#### **Information asymmetry and agency problems**

First of all, information asymmetry and agency problems based on the theory of separation of two rights are hot issues in management research. Information asymmetry and agency problems can lead to misalignment of corporate asset investment and low capital allocation efficiency. The agency cost problem of internal capital allocation mainly comes from the agency problem between large shareholders and small and medium shareholders, and between shareholders and company management.

(1) Agency issues at the ownership level formed between large shareholders and small and medium shareholders

In countries where the legal protection of investors is relatively weak, the agency problem among shareholders is more serious, and inefficient internal capital allocation is often related to agency problems at this level. In countries where the law provides weak investor protection, the transparency of the external capital market is low, and it is difficult for external small and medium shareholders to supervise the company, and large shareholders and company management are prone to plunder the company's wealth for their private gains. The purpose of constructing enterprise groups is also that controlling shareholders use the pyramid ownership structure to encroach on the interests of small and medium shareholders<sup>[52]</sup>. Xu Lei and Zhang Xiangjian<sup>[53]</sup> found that major shareholders can obtain hidden benefits that small and medium shareholders cannot obtain in the process of equity refinancing through profit manipulation. The benefits of major shareholders increase with the increase in the degree of profit

manipulation, and the increase in the degree of profit manipulation will reduce the capital allocation efficiency and corporate value of listed companies. Dou Zhongqiang et al.<sup>[54]</sup> analyzed the impact of private gains of control on corporate capital allocation decisions based on the theoretical interpretation of corporate internal capital allocation. The results of the study show that the private behavior of controlling rights of major shareholders is an important reason that causes companies to deviate from the optimal capital allocation decision.

(2) Agency issues between shareholders and company management

The principal-agent relationship in the West is drawn under the background of "weak owners and strong managers". The agency problem between shareholders and management is the main agency problem. Companies with internal capital markets usually have more cash flow, giving managers more internal capital at their disposal. When the management allocates internal capital, it will lean toward the "pet projects" in their hands, such as investing internal capital in projects that can increase their private income or not increase shareholder wealth, and other projects that have a negative net present value. The external market's supervision of internal capital allocation behavior is weak, and excessive investment may occur, which may lead to distortions in internal capital allocation. Stein<sup>[55]</sup> found that under the conditions of a certain level of investment and limited capital, when the management's own interests are consistent with the company's overall interests, the management may carry out effective internal capital allocation; and when the management's own interests are in line with the company's overall interests. When the overall interests are inconsistent, the management is prone to inefficient internal capital allocation behaviors in order to pursue their own interests, which damages the interests of shareholders.

#### **Enterprise accounting information quality**

Improving the quality of accounting information can indirectly improve the efficiency of corporate capital allocation by reducing the information asymmetry between investors and management, investors and the company. Chinese scholar Li Qingyuan<sup>[56]</sup> also found that improving the quality of accounting information can effectively reduce agency risk and adverse selection, increase corporate investment efficiency, reduce corporate financing costs, and improve corporate capital allocation efficiency. In addition, high-quality accounting information sends a positive signal to the market, and stakeholders can respond accordingly to reduce inefficient investment of company capital. From the perspective of the institutional environment, Zhang Botao<sup>[57]</sup> found that high-quality accounting information can

effectively improve the capital allocation efficiency of listed companies, and the capital allocation efficiency of listed companies in areas with better institutional environments is significantly higher, that is, a good institutional environment can Promote the quality of accounting information to exert a greater positive impact on the efficiency of capital allocation of listed companies.

### **Enterprise internal information structure**

In the internal capital market, by setting up complex levels, the headquarters can obtain real information about departmental investment projects under the premise of maintaining control rights, and can allocate internal capital more efficiently, meet its own capital needs, and make high-quality investments. decision making. Compared with external investors, the headquarters has a better understanding of project-related information and can effectively allocate internal capital to departments with the highest marginal returns. Through internal capital allocation, the company invests limited funds into projects with a higher rate of return, eases financing constraints, and creates greater value for the company<sup>[58]</sup>. When the internal information structure of the enterprise is more standardized and the information transmission is more accurate, the more effective the CEO will allocate internal capital based on the information obtained, and the efficiency of internal capital allocation will increase accordingly.

### **Other influencing factors**

There are other factors that also affect the efficiency of internal capital allocation, such as the size of the company, the level of corporate governance, and the level of foreign direct investment. When the company reaches a certain size, the existence of the internal capital market can relax financing constraints and promote efficient internal capital allocation. However, as the company continues to grow in size and with the increase in levels, the company's internal agency chain is extended, and internal information transmission is not smooth. Information is distorted and the function of observation and control of the headquarters is weakened. It is difficult for the headquarters to effectively perform its supervisory functions, resulting in ineffective internal capital allocation. Therefore, the larger the size of the company, the larger the internal capital market, and the more likely it is to distort the internal capital allocation<sup>[59]</sup>. In addition, the level of corporate governance also has a significant impact on the efficiency of capital allocation. The existing literature on the impact of corporate governance on the efficiency of corporate capital allocation is mainly in two aspects:

on the one hand, it is about the impact of the overall corporate governance mechanism on capital allocation. Governance mechanism is conducive to reducing agency problems, reducing information asymmetry, reducing tunneling, etc., which is conducive to the improvement of corporate capital allocation efficiency<sup>[60]</sup>; on the other hand, the research mainly focuses on the degree of equity concentration and independent directors. The impact of some governance mechanisms such as the ratio and the degree of separation of the two powers on the efficiency of corporate capital allocation<sup>[61,62]</sup>. In recent years, the literature on OFDI's impact on the efficiency of corporate capital allocation has also increased. Studies have shown that companies' blind and extensive or follow-up OFDI behavior is not only detrimental to the improvement of corporate capital allocation efficiency, but will instead cause companies to fall into high-quality assets or even investment. In the dilemma of failure, Bai Junhong and Liu Yuying<sup>[1]</sup> found that OFDI's important mechanism for improving the efficiency of capital allocation is to allow production factors to flow freely between different countries (borders), and capital can use OFDI to search for profits on a global scale. Maximize the allocation method, and then realize the improvement and promotion of the efficiency of enterprise capital allocation.

## **4. Research on the Relationship between Commercial Credit and Capital Allocation Efficiency**

There are few articles on the influence of commercial credit on the efficiency of corporate capital allocation. Chen Deqiu et al.<sup>[63]</sup> selected a sample of Shanghai and Shenzhen listed companies from 2002 to 2010. The study found that the stronger the commercial credit obtained by the family business, the higher the efficiency of corporate capital allocation, and this effect is more significant in areas with higher social trust. Further research found that the micro-mechanism of the capital allocation efficiency of commercial credit is to alleviate the enterprise's insufficient investment and improve investment efficiency. That is, commercial credit helps companies with restricted formal financing channels to improve the efficiency of capital allocation by providing informal financing opportunities. Liu Guangrui<sup>[38]</sup> took my country's listed real estate companies from 2007 to 2011 as a sample, and used the Richardson model to measure the efficiency of corporate capital allocation. He studied the impact of financial development and informal finance on the capital allocation efficiency of real estate companies. The study found that listed private real estate companies over-investment is more serious than listed state-owned



real estate companies, and the phenomenon of under-investment in state-owned real estate listed companies is more obvious. Informal finance based on commercial credit can improve the capital allocation efficiency of private real estate listed companies and state-owned real estate listed companies. Zhang Xinmin and Zhang Tingting<sup>[42]</sup> used the data of A-share listed companies in the Shanghai and Shenzhen stock exchanges from 2008 to 2013, and used the sensitivity of investment to Tobin's Q to measure the efficiency of capital allocation. The results showed that the stronger the business credit obtained by the company, the more efficient the company's capital allocation. The higher, that is, commercial credit can improve the efficiency of the enterprise's capital allocation. Further research found that the impact of commercial credit on the efficiency of corporate capital allocation differs depending on the nature of the property rights of the enterprise and the degree of regional financial development. The effect of commercial credit on the improvement of capital allocation efficiency is in private enterprises and enterprises in relatively underdeveloped financial markets. Is more significant.

## 5. Conclusions

To sum up, there have been many articles that have individually studied commercial credit and capital allocation efficiency, but there are few studies on the impact of commercial credit on the efficiency of corporate capital allocation, and there are the following problems: First, provide commercial credit in the course of business operations. Credit to obtain more sales revenue is the primary starting point for enterprises to use commercial credit. Providing commercial credit can not only reduce the financing cost of enterprises by giving full play to the signal effect, but also increase the level of production efficiency and enhance the competitiveness of enterprises' products. The impact on the efficiency of capital allocation cannot be ignored. However, the existing literature only analyzes from the perspective of commercial credit, and lacks research on the impact of commercial credit provision on the efficiency of capital allocation. Second, there is an endogenous problem in the process of commercial credit influencing the efficiency of corporate capital allocation. There have been few studies to control this problem, causing certain biases in the research results. Third, there are few studies on the theoretical mechanism analysis and intermediary effect testing of how commercial credit affects the efficiency of corporate capital allocation. Zhang Xinmin and Zhang Tingting<sup>[42]</sup> only analyzed the mechanism from the perspective of obtaining commercial credit to ease financing constraints.

In view of the above analysis, this article believes that future research can start from the following aspects: First, include the provision of commercial credit variables into the article discussion, increase the research on the impact of commercial credit provision on the efficiency of capital allocation, and enrich the research content. Second, a more systematic and comprehensive analysis of the theoretical mechanism of how commercial credit affects the efficiency of corporate capital allocation. Third, to further demonstrate the impact of commercial credit on the efficiency of corporate capital allocation through empirical research. The process of demonstration needs to be rigorous, multi-angled, and comprehensive, and control possible endogenousness in the research process.

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