

Corporate Financialization and Corporate Innovation: Research Summary and Prospects

Shanshan Wang

School of Economics and Management, Tibet University, Lhasa, Tibet, China

Keywords: Corporate financialization, Corporate innovation, Principal-agent theory, Crowding-out effect, Financing constraints, Preventive savings

Abstract: The trend of corporate financialization continues to accelerate, and its impact on corporate development and even the real economy is also increasing. In recent years, the domestic and foreign academic circles have continuously developed in-depth research on corporate financialization and innovation. The research results mainly focus on the motivation of corporate financialization and the relationship with corporate innovation. After reviewing the existing research results, it is found that the research on corporate financialization and corporate innovation still has the following shortcomings: (1) The existing research views are still inconsistent, and there are differences in the direction of the relationship between the two. (2) At present, most scholars directly characterize financialization as excessive research, and have not found relevant research results on the appropriate screening of financialization, and there are few documents that consider the financialization and financialization caused by the moderate heterogeneity of corporate financialization. The mechanism of dynamic changes in innovation relationships. (3) Research on the influencing factors between corporate financialization and innovation at the micro level is still a very new topic, with a small amount of related research, and the research perspective is still not fully unified, and a more recognized research has not yet been established frame. Therefore, future research needs to further explore the appropriateness and heterogeneity of corporate financialization, focus on the study of the dynamic relationship between the two, and strengthen the micro-level factors that affect the relationship between the two. It is hoped that it will help to systematically understand the evolution of this field and promote the in-depth development of corporate financialization and innovation.

1. Introduction

Over the past decade or so, the return on investment of physical companies has been declining. Driven by the profit-seeking nature of capital, companies have gradually deviated from their main business and allocated part of their funds to financial assets in the hope of finding new profit growth points. Leading to the phenomenon of “corporate financialization”.[1-6] Under the current background of declining investment returns of real enterprises, sharing high returns through financial investment activities has become a rational choice for many real enterprises. On the one hand, this can play a positive role in increasing profits for companies and using capital.[7] On the other hand, the financial profit-seeking behavior of listed companies will induce them to deviate from their main business investment and crowd out physical investment,[8-9] which will eventually lead to the “hollow” phenomenon of physical enterprises. Enterprises are the main participants in a national innovation development strategy. In particular, corporate innovation activities have the characteristics of large investment, high risk, long R&D cycle and output uncertainty [10], as well as pressures such as economic growth and intensified competition, which have caused financial problems in enterprises that are subject to financing constraints. Increasingly, the development of “off the real to the virtual” in the allocation of financial assets by enterprises may bring financial benefits to the enterprise, but it may also squeeze the funds originally used for enterprise innovation and physical investment, and exacerbate the contradiction between enterprise innovation. In addition, in recent years, various countries have paid more and more attention to the issue of “removing from reality to virtual”, which has made the issue of the financialization of real

enterprises and the innovation and development of enterprises become one of the important topics that need to be focused on and discussed in the current theoretical and practical circles.

In view of this, some scholars have carried out research on the financial behavior of enterprises and the impact on enterprise innovation, but their conclusions are not consistent. Some scholars believe that financial asset allocation, as an alternative investment option for non-financial companies to pursue short-term operating performance[2], will squeeze fixed asset investment [2,9] and even R&D investment [11]. This restricts the future development of real enterprises. However, some scholars have pointed out that financialization has a boosting effect on physical investment [7,12], which is a precautionary behavior, such as alleviating financial difficulties, alleviating one's own financing constraints, and hedging price risks. This effect can be called the “reservoir effect”. In summary, there are still serious differences in the research conclusions on the relationship between corporate financialization and corporate innovation, but some research has been done and some very important insights have been drawn. Therefore, it is necessary to systematically sort out the recent related literature and sort out a clear logical thread from it in order to better understand the relationship between corporate financialization and innovation. Therefore, on the basis of systematically combing the frontier research at home and abroad, this article reviews the work that has been done in the existing research and the places that have not been dug in depth, and looks forward to the future development direction to better guide the future Policy practice and academic research.

2. Concept Definition and Feature Comparison

2.1 The Concept of Corporate Financialization

The term financialization has been used repeatedly since the early 1990s, and there is currently no consensus on the definition of “financialization”. The concept of “financialization” at home and abroad is generally carried out from a macro level to economic financialization. For example, Stockhammer [11] pointed out that financialization is an increase in the participation of real economic sectors in financial investment activities and an increase in the proportion of financial income in profits. Foster [13] believes that financialization can be defined as the shift of capitalist economic focus from the production sector to the financial sector. Financialization means that financial motives, financial markets, financial sectors, and financial institutions play an increasingly important role in domestic and international economic operations [14]. This is mainly financialization from a macro perspective. With the deepening of financialization research, some scholars have conducted research on micro-level financialization (ie, corporate financialization). Existing studies have explained the financialization of enterprises mainly from the perspective of financial assets and income. For example, Krippner [1] believes that the financialization of non-financial enterprises is a mode of accumulation, which obtains profits through financial activities rather than through the channels of commodity production and trade services. Orhangazi [2] defines it as the increasing financial investment, financial income and financial payment of non-financial enterprises. Demir [8] defines it as an investment strategy that non-financial companies increasingly choose to shorten the investment return cycle in order to obtain current profits or avoid risks. From a micro perspective, the “economic financialization” defined by Zhang Chengsi and Zhang Butan [15] is the financialization of non-financial companies. Cai Mingrong and Ren Shichi [16] summarized corporate financialization from two perspectives, dynamic and static. With reference to the definitions of the above scholars, this article defines corporate financialization as the tendency of non-financial companies to reduce investment in the real economy and increase investment in financial assets (including real estate and other commodities with investment attributes).

At present, there is no consensus on the specific definition of corporate financialization, and scholars have very different metrics and methods for corporate financialization. According to the definition of financialization of enterprises by scholars, it is possible to measure the degree of financial investment activities of enterprises from two aspects: financial assets and profits. The

asset-based measurement method is defined by measuring the ratio of corporate financial assets to other assets or total assets. This is also the earliest and most widely used method to measure the degree of financialization in academia. In addition, some scholars use the growth rate of financial assets to measure the financialization of enterprises. Based on the profit measurement method, it is mainly carried out from two perspectives of profit source and profit distribution. It is defined by measuring the ratio of corporate financial income (from the perspective of profit sources), financial payment (from the perspective of profit distribution) to the total corporate income. From the current research, although many scholars have provided a wealth of financial measurement methods, but due to differences in the definition of corporate financialization, the measurement of corporate financialization should be based on what angle (source of funds and profit distribution), Whether the use angle is appropriate), is still a problem to be clarified from a conceptual perspective.

2.2 The Connotation of Enterprise Innovation

The theory of innovation was first proposed by Joseph A. Schumpeter in his book in 1912. He pointed out that innovation is “the establishment of a new production function” and “the recombination of production factors.” The theory points out that innovation mainly includes five aspects: product, technology, market, resource allocation and system. In the contemporary economy, innovation has increasingly become one of the important ways for the entity sector to renew itself. The importance of innovation has become more and more important with the development of the country and economy. Enterprise innovation runs through every department and every detail, and involves many aspects such as organizational innovation, technological innovation, management innovation, and strategic innovation, but it is most directly reflected in R&D activities. Therefore, combined with relevant literature, this article believes that corporate innovation is mainly reflected through R&D investment and patent production.

Regarding the measurement methods of enterprise innovation, scholars mainly start from two aspects: innovation input and innovation output. Based on the aspect of innovation investment, Seo et al. [17] used the ratio of corporate R&D investment to sales to measure the R&D intensity of Korean companies. Corporate R&D investment includes research expenditure, ordinary R&D expenditure + ordinary development expenditure + development cost amortization. Chinese scholars often use the absolute scale and relative scale of enterprise R&D expenditures to reflect the innovation activities of enterprises, but some scholars believe that R&D expenditures do not fully reflect the technological development and digestion capabilities of enterprises. The patent rights, copyrights, and trademark rights of enterprises are not included in the Inside. Therefore, some scholars believe that it is more appropriate to measure the increase in net intangible assets as a percentage of total assets [18]. In terms of innovation output, scholars generally use the number of patent applications as a measure of innovation output.

3. Research Logic about the Relationship between Corporate Financialization and Corporate Innovation

In recent years, a number of research results on the relationship between corporate financialization and corporate innovation have emerged at home and abroad. Existing research can be divided into inhibition theory, promotion theory and dynamic theory according to “how corporate financialization affects corporate innovation”. It can be seen that scholars' research views are still inconsistent, and there are still differences in the direction of the relationship between the two. The details are as follows:

3.1 Inhibition

From the perspective of balance sheet changes, some scholars believe that financialization has a negative impact on physical investment. Orhangazi [2] believes that increasing investment in financial assets may have a “crowding out” effect on actual investment. When the profit opportunities in the financial market are better than the product market, this will stimulate investors to increase investment in financial assets and reduce Investments in physical assets. For the

company, internal funds are “safer” than external financing, so more investment in financial assets will crowd out the investment in actual capital, rather than the actual investment that provides medium and long-term returns. Seo et al. [17] believe that financial market payment restrains corporate R&D investment. On the one hand, it is achieved by reducing corporate internal funds and managers’ attention to long-term planning. On the other hand, it is achieved through management incentives. It is also found that the financial crisis has intensified financialization. The negative impact of the process on corporate R&D investment. Yakun et al. [19] found that financial asset allocation affects corporate innovation investment through risk paths and earnings management paths. Further, economic policy uncertainty will aggravate the inhibitory effect of corporate financial asset allocation on innovation investment. Xiao Zhongyi found that there is a mismatch between financialization and the company's long-term continuous innovation. Financial resources have not been optimally allocated. The financialization of non-financial listed companies has a “crowding out” effect on continuous innovation in the growth stage of the company. The performance is relatively strong, and with the extension of the business life cycle, this “crowding out” effect gradually weakens.

3.2 Promotion Theory

Some scholars believe that corporate financialization and innovation are positively correlated. But there are not too many related documents. Some scholars have found that financialization has a boosting effect on physical investment,[7,12] and provide financial support for corporate innovation through the “cistern effect” of financial assets. On the one hand, financial investment can increase the total profit of the enterprise and provide more financial support for the expansion of production and reinvestment of the enterprise [20]. On the other hand, as a short-term investment, the capitalization of industrial funds can improve financing efficiency and financing capabilities [21], increase the level of investment in real enterprises, and further invest in financing for enterprise innovation.

3.3 Dynamic Theory

Some scholars also believe that the relationship between corporate financialization and innovation has dynamic characteristics. For example, Wang Hongjian [22] found that there is an inflection point for the financialization of entity enterprises to squeeze out corporate innovation. When the degree of financialization of entity enterprises exceeds 23%, the two gradually begin to show a positive correlation, which shows a kind of “facilitation effect.” Liu Guanchun found that the proportion of financial assets is more of a reservoir effect. The allocation of financial assets will significantly reduce the current corporate R&D innovation, but the share of financial assets will help promote corporate R&D innovation in the future, while financial profit It is more an inhibitory effect. Zhang Zhao [23] found that corporate financialization is a “double-edged sword”. On the one hand, corporate financialization has a “crowding out effect” on the industrial investment of enterprises for production and operation, and on the other hand, financial assets are relatively liquid. The “reservoir effect” produced by financialization can supplement the capital needed for corporate industrial investment. The tendency of corporate financialization to squeeze the industrial investment of over-invested and under-invested enterprises to a certain extent. The combination of these two effects makes corporate financialization The impact on investment efficiency shows nonlinear characteristics.

This paper combs and summarizes the research logic of the existing literature on the relationship between corporate financialization and corporate innovation.

As shown in Figure 1:

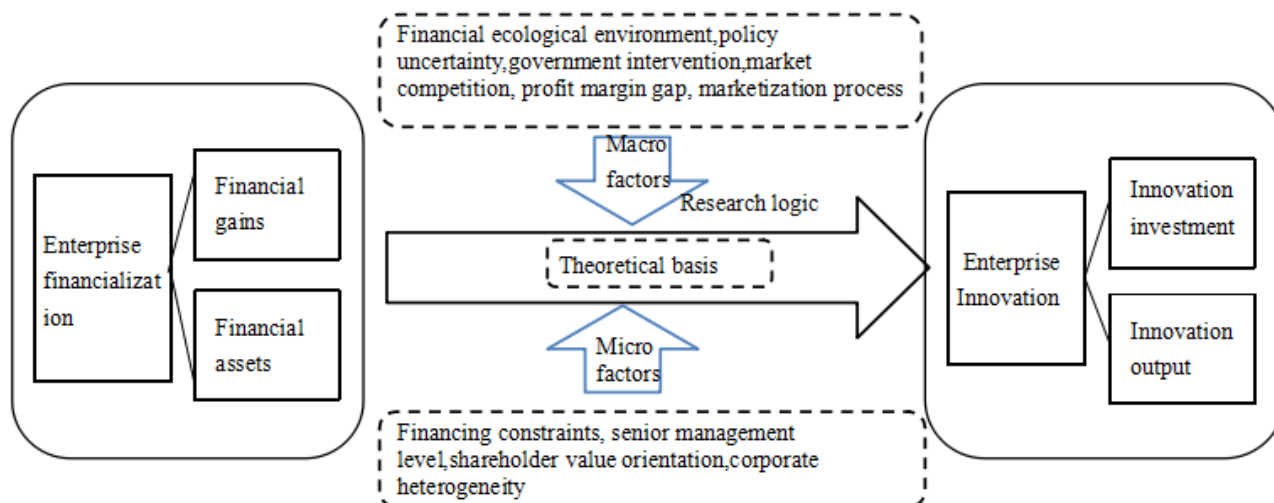


Fig.1 Research Logic Diagram of the Relationship between Corporate Financialization and Innovation

4. Review of Existing Research and Research Prospects

Through the above analysis, it can be seen that in recent years, many issues related to the financialization and innovation of non-financial enterprises have attracted attention from scholars. From the perspective of the development of corporate financialization, its research focus is shifting from the front-end macro to the micro, and the research on micro-level corporate financialization is generally in its infancy. The latest research focus is on the factors that affect the financialization and innovation of enterprises, especially the factors at the micro level of enterprises. The above studies provide a good research foundation and theoretical reference for exploring the relationship between corporate financialization and innovation. However, the related research on corporate financialization and corporate innovation still has the following shortcomings: First, the definition of corporate financialization and the analysis of its motivation are still controversial. The definition of corporate financialization is broad and has not yet reached a consensus in the academic world, which affects further theoretical development. Second, the mechanism of dynamic changes in the relationship between financialization and innovation caused by the appropriateness and heterogeneity of corporate financialization. Third, the emerging issues of corporate financialization and innovation: mechanism of action, adjustment factors, etc. have just emerged, and theoretical and empirical analysis are very insufficient. The research on the relationship between corporate financialization and innovation generally lacks a systematic research framework. Although research on the financialization of non-financial companies and corporate innovation has gradually increased in recent years, many scholars have conducted discussions from the perspectives of economic policy, government intervention, marketization process, and financing constraints. Other aspects of combined research, and the number of comprehensive research is small, the research is thin. The financialization of non-financial enterprises has its advantages, but the dangers of economic and real enterprises “de-realization” caused by the financialization of non-financial enterprises cannot be ignored, and the impact on other industries has not been paid attention to. There are still many issues worthy of further consideration by academic circles.

The research on financialization and corporate innovation of non-financial enterprises has not yet entered a mature stage. Judging from the results of recent years, there is a gradual increase trend, indicating that this research direction is still developing. However, in the research direction of non-financial corporate financialization and corporate innovation, there are still many issues that have not been resolved, such as whether there is an appropriate level of corporate financialization, or different methods to support it, and the influencing factors of the relationship between the two. Both are worthy of further exploration. To enhance the maturity of research in the field of non-financial

corporate financialization and corporate innovation, researchers must be more forward-looking about the research directions and trends in non-financial corporate financialization and corporate innovation. In addition, sports multidisciplinary knowledge systems, cross-cutting theories and methods are studied to achieve greater results in the field of corporate financialization and innovation. The existing literature has not yet reached a consensus on the discussion of the financialization and innovation of Chinese enterprises, and many issues still need to be further studied by researchers. Future research on corporate financialization and innovation can further identify the different motivations of Chinese corporate financialization, explore the appropriateness and heterogeneity of corporate financialization, and further identify the intermediary mechanisms and adjustment factors that corporate financialization affects innovation from a micro level. Expand in all aspects. The amount of existing research on the intermediary mechanism and adjustment factors of the relationship between corporate financialization and innovation is not many, and the depth is not enough. For example, the influence of factors such as the effectiveness of corporate internal control, the background characteristics of executives, and internal and external governance of the company on the two has not been involved. Future research can further analyze the factors that affect corporate investment decisions at the micro level of the company, and find reasonable methods to restrain the economy. "Remove the reality to the virtual", promote the effective integration of financial and physical enterprises, and promote the stable, healthy and sustainable development of enterprises.

References

- [1] Krippner, G.R. The Financialization of the American Economy. *Socio-Economic Review*, vol. 3, no. 2, pp. 173-208, 2005.
- [2] Orhangazi, Ö. Financialization and Capital Accumulation in the Non-financial Corporate Sector: A Theoretical and Empirical Investigation on the US Economy: 1973-2003. *Cambridge Journal of Economics*, vol. 32, no. 6, pp. 863-886, 2008.
- [3] Lazonick, W. Innovative Business Models and Varieties of Capitalism: Financialization of the US Corporation. *Business History Review*, vol. 84, no. 04, pp. 675-702, 2010.
- [4] Davis, L.E. Financialization and the Non-financial Corporation: An Investigation of Firm Level Investment Behavior in the U.S. 1971-2011. *Umass Amherst Economics Working Papers*, vol. 86, no. 273, pp. 178-184, 2013.
- [5] Song, J., Lu, Y. The U-shaped Relationship between Monetary Financial Assets and Operating Rate of Return-Evidence from the Financialization of Listed Non-Financial Companies in my Country. *Financial Research*, no. 6, pp. 111-127, 2015.
- [6] Xiao, Z.Y., Lin, L. Corporate Financialization, Life Cycle and continuous Innovation. *Financial Research*, no.8, pp. 43-57, 2019.
- [7] Davis, L.E. Financialization and Investment: A Survey of the Empirical Literature. *Journal of Economic Surveys*, vol. 31, no. 5, pp.1332-1358, 2017.
- [8] Demir, F. Financial Liberalization, Private Investment and Portfolio Choice: Financialization of Real Sectors in Emerging Markets. *Journal of Development Economics*, vol. 88, no. 2, pp. 314-324, 2009.
- [9] Demir, F. Capital Market Imperfections and Financialization of Real Sectors in Emerging Markets: Private Investment and Cash Flow Relationship Revisited. *World Development*, vol. 37, no. 5, pp. 953-964, 2009.
- [10] Holmstrom, B. Agency Cost and Innovation. *Journal of Economic Behavior & Organization*, vol. 12, no. 3, pp. 305-327, 1989.
- [11] Stockhammer, E. Financialisation and the Slowdown of Accumulation. *Cambridge Journal of*

Economics, vol. 28, no. 5, pp. 719-741, 2004.

[12] Kliman, A, Williams, S.D. Why “Financialisation” Hasn’t Depressed US Productive Investment. *Cambridge Journal of Economics*, vol. 39, no. 1, pp. 67-92, 2015.

[13] John Bellamy Foster. The Financialization of Capitalism. *Month Review*, no.11, pp.10-19, 2007.

[14] Epstein, G.A. *Financialization and the World Economy*, Northampton, MA: Edward Elgar, 2005, pp.3-5.

[15] Zhang, C.S., Zhang, B.T. The Mystery of the Decline in China's Industrial Investment Category. *The Perspective of Economic Financialization*, no. 12, pp. 32-46, 2016.

[16] Cai, M.R., Ren, S.C., 2014. Corporate Financialization: A Research Review. *Finance and Economics*, no. 7, pp. 41-51, 2017.

[17] Seo, H.J., Kim, H.S., Kim, T.C. Financialization and the Slowdown in Korean Firm’s R&D Investment. *Asian Economic Papers*, vol. 11, no. 3, pp. 35-49, 2012.

[18] Liu, G.C. Financial Asset Allocation and Enterprise r&d Innovation: “Squeeze Out” or “Squeeze In”. *Statistical Research*, no. 7, pp. 49-61, 2017.

[19] Ya, K., Luo, F.K., Li, Q.J. Economic Policy Uncertainty, Financial Asset Allocation and Innovative Investment. *Finance and Trade Economics*, no. 12, pp. 95-110, 2018.

[20] Panitch, L., Gindin.,S. Superintending Global Capital. *New Left Review*,45(35):101-123. 2005

[21] Gehringer, A. Growth, Productivity and Capital Accumulation: The Effects of Financial Liberalization in the Case of European Integration. *International Review of Economics & Finance*,vol. 25, no. 1, pp. 291-309, 2013.

[22] Wang, H.J., Cao, Y.Q., Yang, Q., et. al. Whether the Financialization of Entity Enterprises Promotes or Inhibits Enterprise Innovation-Based on the Empirical Research of listed Chinese Manufacturing Companies. *Nankai Management Review*, no. 1, pp. 155-166, 2017.

[23] Zhang, Z., Zhu, J.X., Li, A.Y. Does Enterprise Financialization Reduce Investment Efficiency. *Financial Economics Research*, no. 1, pp. 104-116, 2018.