Financial Mismatch and Total Factor Productivity of Enterprises

-- Analysis from the Perspective of Enterprise Innovation

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Abstract

Based on the relevant research of domestic and foreign scholars, this paper analyzes the transmission mechanism of the impact of financial mismatch on total factor productivity of enterprises through the intermediary variable of enterprise innovation, and deeply explores the relationship between financial mismatch and total factor productivity of enterprises. It is expected to put forward suggestions for enterprises to improve total factor productivity and China's factor marketization reform, provide a new direction for the next step of state-owned enterprise reform, and provide a basis for promoting China's manufacturing enterprises to transform into innovation driven enterprises.

Keywords

Enterprise Innovation; Financial Mismatch; Total Factor Productivity.

1. Introduction

1.1. Research Background

Since the reform and opening up, China's economy has shifted from a stage of rapid growth to a stage of high-quality development. In order to further enhance China's medium - and long-term economic growth, the key is to improve total factor productivity. Financial mismatch is one of the important reasons that affect the improvement of TFP at this stage. The 13th Five Year Plan clearly points out that "supply side reform is to achieve optimal allocation and regeneration of resources, and improving total factor productivity is the only sustainable growth power under the new normal background". It can be seen that improving total factor productivity is particularly important for China to further realize economic growth.

1.2. Research Meaning

In terms of theoretical significance, the existing research on total factor productivity of enterprises mainly focuses on the macro regional level, while the micro level involves less and is relatively limited. This paper studies the impact of financial mismatch on total factor productivity and innovation of enterprises from the micro perspective. It not only studies the direct mechanism of financial mismatch affecting total factor productivity, but also introduces enterprise innovation as an intermediary variable to study the indirect mechanism of financial
mismatch affecting total factor productivity, and deeply explores the complete path of financial mismatch affecting total factor productivity.

In a practical sense, China has now entered a special stage of the superposition of three phases: "growth rate shift period", "structural adjustment pain period" and "early stimulus policy digestion period". Under the background of this economic transformation, deepening the supply side structural reform needs to closely combine the current situation of China’s factor market development, and the degree of overall economic performance loss caused by resource mismatch within and between industries The key reasons that affect its occurrence, as well as the status of factor allocation within and among industries, are studied in a more in-depth and systematic way. This paper analyzes the impact of financial mismatch on total factor productivity and the intermediary role of enterprise innovation in the process of financial mismatch affecting total factor productivity, providing policy reference for improving enterprise total factor productivity.

1.3. **Research Objective**

This paper aims to reveal the impact mechanism of financial mismatch on total factor productivity of enterprises from the perspective of enterprise innovation, so as to confirm the reverse causal relationship between financial mismatch and total factor productivity of enterprises, clarify the impact of financial mismatch on total factor productivity of enterprises and its mechanism, and provide forward-looking and scientific policy measures for Chinese enterprises on how to reasonably plan production and resource allocation strategies.

2. **Methodology**

2.1. **The Inhibition of Financial Mismatch on Total Factor Productivity of Enterprises**

In the actual production and operation process, government intervention, credit discrimination, information asymmetry and other issues will make the factor allocation deviate from Pareto optimality, resulting in financial mismatch. In a well functioning financial market, resources will flow from enterprises with low productivity to enterprises with high productivity [1], so as to achieve the optimal allocation of resources and maximize benefits. However, there is a serious financial mismatch in China’s financial market. Some efficient enterprises are difficult to obtain sufficient funds for large-scale R&D investment, which leads to a decline in their sensitivity to high-quality investment, thus impacting the company's internal system and even the daily operation of enterprises. However, a large amount of funds flow to state-owned enterprises with low production efficiency or even zombie enterprises. This result is completely opposite to the well functioning financial market.

2.2. **The Inhibition of Financial Mismatch on Enterprise Innovation**

When an enterprise carries out innovation activities, it will face financing constraints if it is faced with insufficient internal funds and at the same time cannot obtain external financing or the cost of external financing is too high. Most enterprises, especially private enterprises, generally face serious financing constraints [2]. In the case of financial mismatch, the "crowding out effect" of state-owned enterprises on private enterprises’ financial resources makes the financial resources that are already scarce for private enterprises become more scarce, intensifying the financing constraints of private enterprises. Financing constraints also increase the possibility of enterprises falling into liquidity difficulties. Enterprises will allocate more funds to short-term production projects, resulting in insufficient R&D investment and sharp reduction of innovation output. In addition, financial mismatch will stimulate rent-seeking behavior. Whether in the long term or short term, it will run the allocation of financial resources of enterprises in R&D investment and inhibit enterprise innovation. From a direct perspective,
enterprise innovation can improve the total factor productivity of enterprises; Indirectly, enterprise innovation can help enterprises improve their ability to absorb external knowledge, thereby improving their total factor productivity. Therefore, the inhibition of enterprise innovation will also hinder the improvement of total factor productivity of enterprises.

3. Results and Discussion

3.1. Direct Influence Mechanism of Financial Mismatch on Total Factor Productivity of Enterprises

The interest rate control, ownership discrimination, credit rationing and other financial restraints in China's financial market have triggered the segmentation of the credit market [3, 4], making more capital in the market flow to state-owned enterprises with low productivity, while non-state-owned enterprises with higher productivity have difficulty in financing. This way of capital allocation has led to a serious problem of resource waste and financial mismatch [5-7], which has greatly reduced the total factor productivity of enterprises.

3.2. Indirect Influence Mechanism of Financial Mismatch on Total Factor Productivity of Enterprises

![Figure 1. Transmission Mechanism of Financial Mismatch Affecting Total Factor Productivity of Enterprises](image)

Through relevant literature review, it is concluded that financial mismatch will inhibit enterprise innovation through resource misplacement effect, crowding out effect, demand inhibition effect and financing constraint, thus affecting the improvement of enterprise total factor productivity.

4. Conclusion

In the context of the economic "new normal", improving total factor productivity is the key to the transformation and upgrading of China's manufacturing industry. The main way to improve TFP is to increase R&D innovation and improve resource mismatch. According to the relationship between the current enterprise innovation activities, the market-oriented allocation reform of factor resources and total factor productivity, this paper puts forward the following suggestions:
4.1. Optimize the Mode of Economic Growth

In order to achieve sustainable economic growth, we must change the existing extensive growth mode. At present, China's economic growth depends on the continuous increase of factor input rather than the promotion of total factor productivity. Research shows that China's demographic dividend is disappearing, and the extensive development mode relying on increasing factor input is obviously no longer scientific and applicable. Improving total factor productivity is one of the most effective ways to promote economic growth. Improving total factor productivity and resource allocation efficiency, improving resource mismatch, and balancing ecological environment and economic development are the long-term ways to maintain sustainable economic growth in the new stage.

4.2. Give Play to the Role of Enterprise Innovation

First of all, the government should continue to increase policy incentives. For example, credit guarantee is provided for innovative enterprises, and tax incentives for innovative enterprises are provided, so as to improve the motivation and ability of enterprises to carry out innovative activities. At the same time, the government needs to improve the market economy system and guide the effective allocation of resources, so as to improve the overall productivity level. Secondly, the government needs to establish a sound intellectual property protection mechanism, accelerate the talent development system, create a good talent development environment, and establish a sound talent team is of great significance to enterprise innovation. Finally, reduce the government's direct intervention in enterprise innovation, truly play the role of market mechanism in regulation and allocation, and create an environment of fair competition and following the rules of survival of the fittest.

4.3. Accelerate the Reform of Market-oriented Allocation of Factors

At present, China's reform process in the production factor market is significantly behind the process of product marketization. Financial mismatch will not only reduce the productivity of enterprises, but also affect their import and export decisions and innovation choices. Therefore, accelerating the reform of factor marketization is the key point. The government should continue to deepen the in-depth reform of state-owned enterprises, establish fair and just competition, reduce excessive interference in the import and export of enterprises, reduce continuous subsidies to zombie enterprises, and respect the mechanism of survival of the fittest in the market. At the same time, it is also necessary to improve cross regional management capabilities, establish a regional collaborative management system, and gradually realize the transition from regional market integration to national market integration, which is of extraordinary significance for improving financial errors.

4.4. Deepen the Reform of State-owned Enterprises and Develop the Private Economy

At present, China's state-owned enterprises still have problems such as government intervention, weak competitiveness and low efficiency of enterprises. In order to further deepen the reform of state-owned enterprises in China, it is necessary to change the way of thinking of government leading enterprises, reduce the dependence on the path of "informal system", clarify the functions of the government and the market, and standardize the relationship between administrative departments and enterprises.

In addition, the development of private economy is also an important means to improve market vitality and promote economic development. This requires the government to create an equal market environment, formulate an equal industrial policy, and create an equal and just investment environment. At the same time, we will increase financial and tax support, improve the protection system for private economic rights and interests, and improve relevant laws and regulations for private enterprises.
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References


