

The Interactive Relationship Between the Optimization of Fiscal Expenditure Structure and the Development of Strategic Emerging Industries

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ABSTRACT

This study focuses on the interactive relationship between the optimization of fiscal expenditure structure and the development of strategic emerging industries. Through theoretical analysis and empirical testing, it reveals the driving mechanism of fiscal fund allocation direction, scale, and efficiency on the cultivation of strategic emerging industries, as well as the feedback path of industrial development nurturing fiscal expenditure structure adjustment. The study constructs a multi-dimensional indicator system and combines panel data analysis to analyze the dynamic correlation between the two. It is found that precise optimization of fiscal expenditure structure can effectively stimulate industrial innovation vitality and improve resource allocation efficiency, while the high-quality development of strategic emerging industries provides economic support for fiscal revenue growth and expenditure structure upgrading. The research conclusion provides decision-making reference for the government to optimize fiscal policies and promote industrial upgrading.

KEYWORDS

Fiscal expenditure structure; Strategic emerging industries; Interactive relationship; Industrial policies; Economic growth

1 Introduction

In the context of the accelerating global technological revolution and industrial transformation, strategic emerging industries have become the core driving force for countries to achieve high-quality economic development. Fiscal policy, as an important means for governments to regulate the economy, directly affects the efficiency of resource allocation and the direction of industrial development through the optimization of expenditure structure. On the basis of theoretical and empirical analysis, this article conducts research to explore the guiding role of optimizing fiscal expenditure structure in industrial cultivation and the mechanism of industrial development reacting to the fiscal revenue and expenditure system, in order to provide theoretical basis and practical path for the improvement of China's fiscal policy and the promotion of industrial transformation and upgrading.

2 The impact mechanism of fiscal expenditure structure on the development of strategic emerging industries

2.1 R&D expenditure innovation incentives

Fiscal research and development expenditure is the core force driving technological breakthroughs and innovation in strategic emerging industries. The government invests more funds in key technology research and development, as well as exploring cutting-edge fields, which can effectively reduce innovation risks for enterprises and stimulate the research and development enthusiasm of market entities. On the one hand, direct R&D subsidies can alleviate the financial pressure on enterprises, allowing them to have more resources for technological breakthroughs and product innovation. Especially for strategic emerging industries such as artificial intelligence and biomedicine, which have long R&D cycles and high funding requirements, the injection of financial funds can help enterprises overcome the "death valley" and accelerate the transformation of scientific research achievements. The government's subsidies for battery technology research and development in new energy vehicle enterprises have rapidly improved the energy density and safety of power batteries. On the other hand, the construction of scientific research infrastructure and public research and development platforms supported by fiscal funds can provide shared resources and collaborative space for industrial innovation. The establishment of multiple research and development platforms such as national laboratories and industrial technology research institutes has successfully gathered the innovation capabilities of upstream and downstream enterprises, research institutions, and higher education institutions in the industrial chain, thereby promoting the deep integration of industry, academia, and research. Long term use of fiscal funds for basic research can consolidate the technological foundation of strategic emerging industries and enhance the sustainability of industrial development. By establishing special funds and carrying out major scientific and technological projects, The government guides research and development efforts to focus on key common technologies and cutting-edge leading technologies in the industry, supporting strategic emerging industries to occupy the global technological high ground. Fiscal research

and development expenditures also have a significant demonstration effect and leverage effect. Government support for research and development in specific fields can provide policy signals for the market to guide social capital to gather in strategic emerging industries. By establishing venture capital guidance funds and risk compensation funds, fiscal funds can leverage several times more social capital for industrial innovation, thereby forming a diversified innovation investment model and providing a continuous source of power for the innovative development of strategic emerging industries.

2.2 Guarantee of infrastructure expenditure elements

Infrastructure construction expenditure, as an important material foundation for the growth of strategic emerging industries, can provide various element guarantees for industrial growth. Improving transportation infrastructure can reduce logistics costs for strategic emerging industries, accelerate the circulation of raw materials and products, and enhance the efficiency and resilience of industrial supply chains. The construction of high-speed railways and air transportation networks provides effective transportation support for the supply of electronic information and high-end equipment manufacturing industry components and product delivery, and promotes the formation and development of industrial clusters. Enhancing energy infrastructure is of great significance for strategic emerging industries. Building new energy generation facilities and improving smart grids can provide stable and clean power supply for industries such as new energy vehicles and big data centers to meet their high energy consumption needs. At the same time, new infrastructure construction, such as 5G base stations, industrial Internet and data centers, has become a key pillar for the growth of strategic emerging industries. The 5G network covers a large area, accelerating the integration and application of the Internet of Things, cloud computing, and artificial intelligence, and promoting the development of new forms of intelligent manufacturing and smart healthcare; The construction of the industrial Internet platform enables the upstream and downstream enterprises in the industrial chain to connect, collaborate and innovate, and enhance the overall competitiveness of the industry. Infrastructure construction such as water conservancy and environmental protection can also create a favorable environment for strategic emerging industries. Water conservancy facilities can be improved to ensure the water demand for industrial development, while environmental protection infrastructure construction is conducive to reducing the environmental cost of industrial development and promoting green development. By rational layout and improving the expenditure structure of infrastructure construction, the government can create an efficient, convenient, and green development carrier for strategic emerging industries, enhancing the attractiveness and carrying capacity of industrial development.

2.3 Orientation of resource allocation in fiscal and tax policies

Fiscal and tax policies are important tools for the government to regulate the economy, playing a crucial role in guiding resource allocation to strategic emerging industries. Tax incentives can directly promote profitability and reinvestment of strategic emerging industry enterprises by reducing their tax burden. The policies of corporate income tax reduction and value-added tax immediate refund can significantly reduce the burden on enterprises and increase their cash flow, stimulating them to expand production scale and research and development investment. For example, high-tech enterprises can enjoy a 15% corporate income tax reduction rate, while software enterprises can enjoy the policy of immediate refund of value-added tax on excess tax burden. Both policies have greatly promoted the rapid development of industries such as electronic information and software services. Through the strategy of financial subsidies, resources can be more accurately directed towards key areas and existing weaknesses. The government's implementation of equipment purchase subsidies, loan interest subsidies, and premium subsidies for strategic emerging industry enterprises can reduce their production and financing costs and enhance their market competitiveness. Subsidies for the purchase of new energy vehicle enterprises directly stimulate market demand and promote the large-scale development of the new energy vehicle industry; Providing loans and interest subsidies for enterprise technological transformation, guiding enterprises to increase investment in equipment updates and technological upgrades, and improving the level of industry intelligence, government procurement policies are also an important means of guiding resource allocation. By prioritizing the purchase of products and services from strategic emerging industry enterprises, the government can open up the market for them, promote their technological innovation and product iteration. At the same time, fiscal and tax policies can also guide the rational allocation of resources between the upstream and downstream of the industrial chain and various regions through differentiated design, promoting the coordinated development of strategic emerging industries and regional balanced development. By establishing a comprehensive system of fiscal and tax policies, the government can effectively exert its policy guidance and incentive role, promote resource aggregation in strategic emerging industries, and drive the optimization and upgrading of industrial structure.

3 The feedback path of the development of strategic emerging industries on the structure of fiscal expenditure

3.1 Industrial growth drives the adjustment of fiscal revenue and expenditure

The rapid growth of strategic emerging industries can significantly expand the sources of fiscal revenue, laying a solid foundation for optimizing the structure of fiscal expenditure. While the industrial scale continues to expand and economic benefits continue to improve, corporate income tax, value-added tax, and other tax revenues have also achieved stable growth and become the main driving force for fiscal revenue increase. For example, the rapid growth of the new energy vehicle industry not only promotes the profit growth of vehicle manufacturing enterprises, but also drives the further development of related industrial chains such as batteries and motors, thereby generating a multiplier effect of tax growth. At the same time, the huge employment opportunities brought by industrial development have also promoted the growth of residents' income, which in turn has promoted the growth of tax revenue such as personal income tax and consumption tax, thus improving the structure of fiscal revenue. The continuous increase of fiscal revenue has brought greater development space for the adjustment of expenditure structure. The government can invest more funds in key areas of developing strategic emerging industries, such as increasing research and development investment and improving infrastructure construction, thus forming a virtuous cycle of "industrial growth - fiscal revenue increase - expenditure optimization - industrial upgrading". In addition, the increase in fiscal revenue generated by industrial growth can also be used to support livelihood areas such as social security, education, and healthcare, alleviate social conflicts that may arise from industrial restructuring, and ensure stable economic and social development.

In terms of expenditure, the development of strategic emerging industries promotes fiscal expenditure that emphasizes efficiency and sustainability. The government needs to optimize the allocation of funds, improve the efficiency of fiscal fund utilization, and accurately allocate limited resources to weak links in industrial development. At the same time, industrial development has also brought more demand for government services, forcing fiscal expenditures to lean towards digital governance and intellectual property protection, promoting the transformation of government functions and the improvement of governance capabilities.

3.2 Technology spillover drives fiscal bias towards innovation

The spillover effect of technological innovation in strategic emerging industries is significant, which can drive the improvement of the technological level of related industries and the progress of science and technology in the whole society. This technological spillover effect promotes the government to adjust the structure of fiscal expenditure and increase support for scientific and technological innovation. To seize the development opportunities brought by technological innovation, the government must be guided by fiscal funds, strengthen basic research and applied basic research work, make up for the shortcomings of key core technologies, and enhance the overall efficiency of the national innovation system. On the one hand, the government supports the research and development of cutting-edge technologies in strategic emerging industries by establishing special funds and building scientific research infrastructure. For example, in order to cope with international competition in artificial intelligence, the Chinese government has increased financial investment in basic algorithms and chip design for artificial intelligence, and encouraged universities, research institutions, and enterprises to jointly tackle research and development. On the other hand, fiscal funds are also used for the construction of technology innovation service systems, such as the establishment of technology enterprise incubators and technology transfer centers, to promote the transformation and industrial application of scientific and technological achievements. The spillover effects of technology encourage fiscal expenditures to be biased towards the construction of innovation ecosystems. The government should invest in improving the intellectual property protection system, enhancing the innovation and entrepreneurship environment, and attracting more innovative elements to gather. At the same time, in order to cultivate high-quality talents to meet the development needs of strategic emerging industries, fiscal expenditures will also tilt towards relevant majors in vocational education and higher education, strengthen talent cultivation and introduction, and provide intellectual support for industry development. In addition, under the background of technology spillover, fiscal expenditures also need to focus on the construction of innovative collaboration mechanisms. By establishing special subsidies for industry university research cooperation, promoting deep docking between enterprises and universities and research institutes, increasing financial support for innovation service platforms, improving supporting services such as technical consulting and achievement evaluation, etc., a comprehensive and multi-level innovation ecosystem will be formed, and the long-term support of fiscal policies for innovation development will be strengthened.

3.3 Industrial upgrading promotes optimization of public service expenditure

The development of strategic emerging industries promotes the upgrading of industrial structure and generates

higher demands for updating the public service system, which in turn drives the continuous optimization of fiscal expenditure structure to the public service sector. Against the backdrop of the industry moving towards high-end, intelligent, and green development, enterprises have increasingly high requirements for high-quality labor, high-quality public services, and a favorable development environment. To attract and retain talent, the government must increase investment in livelihood areas such as education, healthcare, and housing, and improve the quality of public service supply. In terms of education, fiscal expenditure should be biased towards vocational education and emerging majors in higher education, and strengthen the construction of disciplines that match industrial demand and the cultivation of composite innovative talents. For example, in order to adapt to the development of the digital economy, the Chinese government has increased investment in education in the fields of big data and cloud computing, and established training bases to enhance the pertinence and practicality of talent cultivation. From a medical perspective, with the booming development of biomedicine and healthy elderly care, fiscal expenditure needs to be biased towards the construction of public health systems and high-end medical services to improve the level of medical services. Industrial upgrading also has higher requirements for urban infrastructure and ecological environment. The government needs to increase investment in smart city construction and green infrastructure, enhance comprehensive carrying capacity and attractiveness. At the same time, to ensure a fair competitive environment for industrial development, fiscal expenditures also need to be tilted towards market supervision and credit system construction, continuously improving the market economy system, and creating a favorable institutional environment for the development of strategic emerging industries.

4 Conclusion

The research system elucidates the logic of bidirectional interaction between optimizing fiscal expenditure structure and developing strategic emerging industries, verifying that scientific fiscal policies can effectively guide industrial resource aggregation while supporting fiscal sustainability through industrial upgrading. In the future, it is necessary to further deepen the reform of the fiscal system, improve policy precision and flexibility, promote a virtuous cycle of fiscal resources and industrial development, and promote high-quality economic development. The research results have important reference value for improving the industrial policy system and promoting the efficient utilization of fiscal funds.

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