# Research on Cointegration of Financial Development, Fiscal Expenditure Structure and Economic Growth

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**Abstract:** At present, China has entered a new era and its economy has entered a stage of high-quality development. It is necessary to put forward fiscal propositions that better meet the people's needs for a better life, focusing on adhering to the people-centered development idea. Based on the dynamic evolution of financial development, according to the inherent logic of finance, a theoretical analysis framework for financial development and fiscal expenditure structure is constructed, which can explain the economic growth mechanism jointly generated by the capital mechanism and monetary circulation mechanism of financial and fiscal participation, and continue to explore the possibility of moving towards the goal of high-quality economic development from the perspective of structural changes and practical interpretation of financial development. Financial development aims to provide the economy with funds that meet expected standards and continuously improve their quality and efficiency. Therefore, it is necessary to strengthen risk control based on the internal circulation of financial quality, construct the mechanism of interaction and coordination between financial and fiscal quality perception, and establish the evaluation system of finance to achieve high-quality financial development, promote high-quality economic development, and truly meet people's expectations for a better life.

## 1. Introduction

Fiscal expenditure structure is one of the main responsibilities of finance and is also the collective name of public finance. It can be divided into basic and non-basic expenditures, comprising public and quasi-public goods. Furthermore, the finance department entrusts finance by providing public goods to improve fiscal efficiency. Since the reform and opening up, finance has become the key to economic development, and the fiscal expenditure structure has become an evaluation indicator. Unlike traditional finance, modern finance emphasizes fairness, efficiency, and sustainability. As a result, the issue of high-quality development has been raised, and financial development has provided a new impetus for high-quality development.

Financial development originated from capitalism with money as its core. Its connotation contains economic growth and is also a tool for economic growth. In terms of financial structure, finance strives to diversify and modernize through financial innovation and supervision. However, the above is under ideal circumstances. Today, China has practiced a unique path of socialism. The comprehensive advancement of socialism with Chinese characteristics not only updates Chinese history and embodies Chinese wisdom but also revolutionizes world history and challenges the world order. Therefore, when discussing China's financial development, it should have a vision and pattern with Chinese characteristics and propose a proposition for high-quality financial development in the new era.

As a result, financial development is a necessary condition and a guarantee for high-quality economic growth. In an empirical analysis, China's financial development has progressed, but there are also weaknesses. It is still difficult for China to find an effective path for its financial and fiscal expenditure structure. As a result, China's financial development still requires innovation, not only as a choice but also as a necessity. Based on the above background analysis, this paper proposes a



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cointegration analysis method to explore the long-term equilibrium relationship between financial development, fiscal expenditure structure, and economic growth, which solves the endogeneity problem by establishing an error correction model and the Granger causality test method. The above main contents include the following four parts: Through "two-way causality", in the first part, how financial development and fiscal expenditure structure achieve new changes in economic growth are examined. In the second part, the challenges posed by financial development and fiscal expenditure structure are explored. In the third part, the response strategies for the industrial transformation and development process of fiscal expenditure structure under the challenges of financial technology are proposed. The fourth part is the Conclusion. This paper effectively deals with risks such as financial over-expansion, fiscal constraints, and risk governance and has theoretical significance and practical value.

## 2. The " Two-way Causality " Between Financial Development and Fiscal Expenditure Structure Achieves New Changes in Economic Growth

### 2.1 Structural Changes in Financial Development Content

The structural change of financial development content is the main content of the new change of financial development and fiscal expenditure structure "two-way causality" to achieve economic growth, focusing on financial innovation, financial supervision, and financial efficiency. The financial structure directly reflects the matching status of financial supply and demand [1]. Some constituent elements of the content of financial development are gradually being formed, and financial quality and various evaluation systems have gradually received attention. In an empirical analysis, some financial development content is still in its infancy and inconsistent with the logical framework and generation mechanism for high-quality development, leading to problems such as financial overexpansion, financial imbalances, and financial risks.

### 2.2 Fiscal Expenditure Structure, Economic Growth and Social Welfare

Fiscal expenditure structure is a concept that has developed in parallel with economic growth, which demonstrates the fairness of fiscal orientation and reflects the fiscal transformation strategy resulting from reforms and openings. However, achieving consensus when using certain economic standards to construct the definition and essence of fiscal expenditure structure is still challenging [2]. The structure of fiscal expenditures involves the supply of public and quasi-public goods and the distribution and improvement of social welfare [3]. Therefore, fiscal expenditure structure is not only an economic issue but also a social issue. This paper analyzes the classification, influencing factors, and effect evaluation of the fiscal expenditure structure, focusing on how it promotes economic growth and social welfare.

## 3. Financial Development and Fiscal Expenditure Structure Bring Challenges to Economic Growth

### 3.1 The Chaos of Economic Growth: The Excessive Expansion of Financial Development Causes the Imbalance of Economic System

Economic growth chaos is an important criterion for financial development, fiscal expenditure structure-induced challenges to economic growth, and a dynamic expression of the economy. Lorenz and Mandelbrot discussed different definitions of chaos from the perspectives of nonlinearity and unpredictability. Some scholars believe chaos is a degree of certainty or the boundary between order and disorder [4]. Chaos is more universal to some extent and belongs to the natural sciences, which are concerned with exploring laws and patterns. The history of chaos research can even be traced back to Newton, and its main activities include differential equations, fractals, and strange attractors. The concept and model of economic growth are closely related to human social activities. The fiscal expenditure structure has become an important responsibility affecting economic growth through financial development. The main contribution of the economic growth theory in the Keynesian period was the introduction of the concept of effective demand. Thus, economic growth initially focused primarily on quantitative measures based on standard attributes of national income.

Financial development and fiscal expenditure structure are shown in Figure 1.

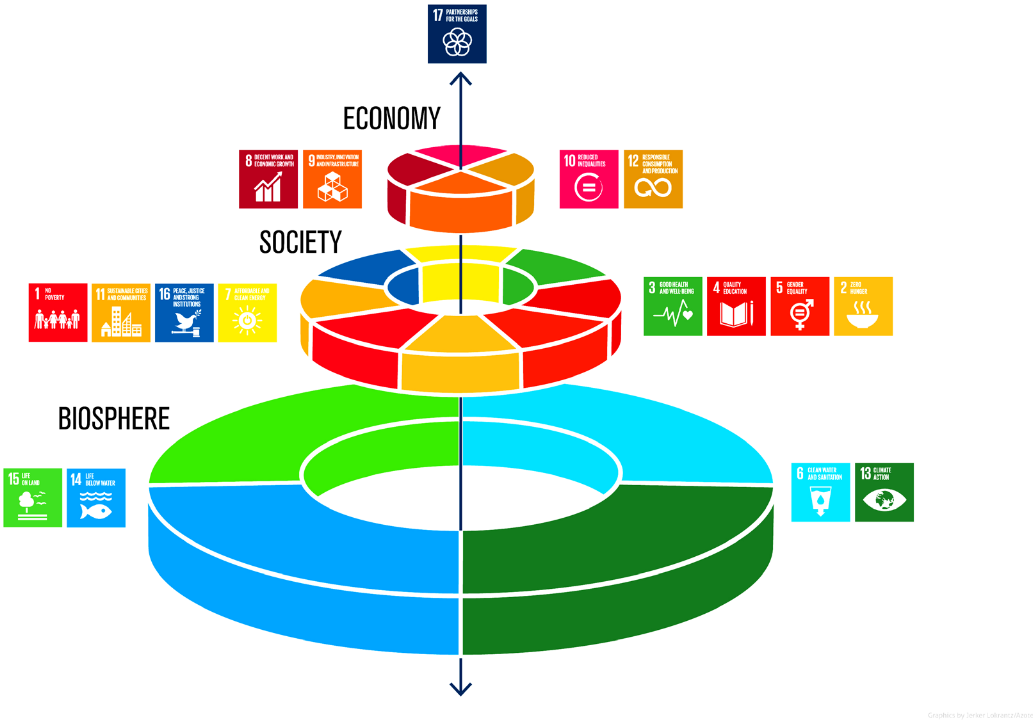


Figure 1 Financial development and fiscal expenditure structure

### 3.2 Fiscal Constraints: Economic Operation under the Overhanging Fiscal Expenditure Structure

#### 3.2.1 Mistakes in Short-sighted Decision-making and Irrational Deviations in Management

Compared with economic growth, the fiscal expenditure structure emphasizes the relationship between public finance and social welfare, which has multi-dimensional characteristics. Although some scholars question that the fiscal expenditure structure may not be directly related to economic growth, most scholars believe that the fiscal expenditure structure can rationally evaluate economic growth. Musgrave et al.proposed a classical calculation model of national income, including consumption, investment, net export, and government expenditure. Since then, the model has become a typical tool for economic growth, thus developing the concept of economic growth rate. These scholars believe that economic growth rates are comparable and are the "ultimate goal." Only when the fiscal expenditure structure matches the economic growth rate will the fiscal expenditure structure promote economic growth. Therefore, the fiscal constraints result from the financial operation of the fiscal expenditure structure. Some scholars have summarized fiscal constraints into dual models: the Keynesian model based on the demand side and the neoclassical model based on the supply side. The former focuses on aggregate demand management, while the latter focuses on total supply incentive supply incentives, that is, supply-side reform. Although fiscal constraints have experienced some practical failures, from a theoretical perspective, they can explain some phenomena, and the concept of high-quality development has gradually become a consensus in fiscal expenditure structure research and practice.

#### 3.2.2 Financial Strain and Debt Risk

The concept essence of fiscal stress and debt risk focuses on the fiscal sustainability issue. Fiscal sustainability is the application of modern fiscal thinking in public finance. In order to overcome the shortcomings of traditional finance, the high-quality development framework has entered the research field as a new alternative model. The basic idea of this framework is that the fiscal expenditure structure should ensure that economic growth is effectively achieved; Set professional standards for social welfare output; "Capture" fiscal revenue and expenditure through techniques such as budget management; Measure fiscal risks by using debt analysis methods. The high-quality development framework restructures the fiscal expenditure structure, emphasizing enhancing fairness and building a supply of public goods, quasi-public goods, public services, and public benefits that meet people's expectations.

### 3.3 The Birth of Derivative Risks under Financial Governance

From the perspective of financial governance, financial development is a basic link in economic growth and a core reflection of high-quality development. Therefore, financial development takes financial efficiency as its main generating logic. Financial supervision is the main means of financial development and the main body of financial risk management. At this stage, financial supervision strengthens financial control from the perspective of risk prevention, and there are three main forms. The first is macro-prudential management, which is clear that financial supervision achieves a dynamic balance between stability and efficiency. The second is micro-supervision. Financial institution control is standardized by formulating capital adequacy and leverage ratio standards and disclosing regulatory standards to the public. The third is the reengineering of the financial market's internal processing. In recent years, Internet finance and others have used technological means to improve financial services and transparency. However, compared with the international advanced level, the current effectiveness of China's financial supervision needs to be further improved.

## 4. The Coping Strategies of the Industrial Transformation and Development Process of Fiscal Expenditure Structure under the Financial Technology Challenge

### 4.1 Two-way Adjustment: Fiscal Expenditure Structure Escapes Economic Growth Challenges

The fundamental difference between the fiscal expenditure structure and economic growth lies in its target attributes. The evaluation and optimization criteria of fiscal expenditure structure are for social welfare, and the development of fiscal expenditure structure mainly reflects fairness and efficiency. In the theoretical framework of high-quality development, accurate identification, distribution, supply, and evaluation of public and quasi-public goods are the core values and highest standards for developing fiscal expenditure structure. The diversity of types of current fiscal expenditure structures and differences in economic growth models have led to complexity and uncertainty in the fiscal expenditure structure. The diversity of fiscal expenditure structure and the difference in economic growth mode lead to the complexity and uncertainty of fiscal expenditure structure. Therefore, this has produced a "short board" of the fiscal expenditure structure, affecting economic growth.

In order to get rid of the challenge of economic growth, this paper proposes a two-way adjustment strategy, that is, adjusting the fiscal expenditure structure from the demand and supply sides simultaneously [5]. From the demand side, it is necessary to optimize the composition of the fiscal expenditure structure, improve the coordination of basic and non-basic expenditures, and promote the formation and expansion of effective demand. From the supply side, it is necessary to improve the effect of fiscal expenditure structure, improve the supply efficiency of public and quasi-public goods, and promote supply-side reform and industrial transformation and upgrading. The dynamic balance between fiscal expenditure structure and economic growth can be achieved through two-way adjustment, and high-quality economic development can be promoted.

### 4.2 Risk Sharing: Optimization of Financial Development Response System and Risk Governance

From the perspective of risk sharing, financial development cannot accurately provide the funds that society needs. Society takes the satisfaction evaluation of finance as the main form, but society lacks the relevant information and supervision mechanism of financial quality. The core of this problem may be information asymmetry. In economics, information asymmetry is often described as "market failure", and its impact on economic growth directly reflects financial efficiency. However, financial efficiency is mostly about information such as interest rates and liquidity, and financial risks are relatively scarce. In general, financial risks are difficult to obtain or measure. Information asymmetry and market imperfections directly lead to moral hazard and adverse selection barriers.

This paper proposes a risk-sharing strategy to cope with the optimization of the system and risk governance, that is, by establishing a collaboration mechanism between the finance and fiscal departments to achieve the dispersion and transfer of financial risks [6]. From a financial perspective, it is necessary to improve the financial regulatory system, strengthen the responsibilities and obligations of financial institutions, and improve financial transparency and binding force. From a fiscal perspective, it is necessary to rationally arrange the fiscal expenditure structure, balance the supply ratio of public goods and quasi-public goods, and improve the efficiency and fairness of the fiscal expenditure structure. Mutual benefit between finance and fiscal departments can be achieved, and high-quality financial development can be promoted.

### 4.3 Value Reversion: Correcting Financial Development and Restoring Economic Growth

From the perspective of value reversion, financial development has restricted economic growth capabilities for a long time. Since the 20th century, modern finance, which integrates financial innovation, financial supervision, and financial efficiency, has reshaped the economic structure through the capital market, but the shortcomings of traditional finance still restrict economic growth. Due to excessive financial expansion and the financial constraints impact, financial development still needs to be improved. According to the premise of high-quality development, financial development is a direct means of promoting economic growth. However, the actual role of financial development focused on quantitative and economic growth remains to be discussed. At the same time, financial risks lack effective governance due to information asymmetry. Therefore, financial development does not always seem to achieve the goal of high-quality development, which shows that financial development is not only a technical problem but also faces issues of value orientation.

To correct financial development and restore economic growth, this paper proposes a response strategy for value restoration, which involves paying attention to the relationship between finance and society to achieve the humanization and socialization of finance. A financial perspective requires adhering to the philosophy of people-centered development, strengthening the social responsibility of financial services, and improving financial satisfaction and trust. It is necessary to actively participate in financial supervision and evaluation, enhance social perception and recognition of financial quality, and improve social welfare and happiness from a social perspective. The harmonious symbiosis between finance and society can be achieved through value reversion, and coordinated development between the economy and society can be promoted.

## 5. Conclusion

As China has entered a new era, it has raised new challenges and requirements for financial development and fiscal expenditure structure. High-quality development is not only a symbol of the "quality" of economic growth but also an important means of finance and fiscal departments, which is also an urgent need to achieve social welfare and maintain social stability. It essentially embodies the inherent requirement of being people-centered. This paper aims to develop a theoretical framework and practical mechanism for financial development and fiscal expenditure structure based on high-quality development. As modern information technology, such as artificial intelligence, promotes financial innovation, empowers financial supervision through data analysis, and improves the accuracy and scientificity of fiscal expenditure structure, its value is in line with the inherent logic of high-quality development. Therefore, artificial intelligence provides a new path for financial development and fiscal expenditure structure. In short, the sustainable improvement and development of financial development and fiscal expenditure structure will help promote economic growth and enhance social welfare.

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