

Construction of a Performance Evaluation Index System for Government Guidance Funds Based on the Revised 5E Theory

Ganlin Ren^{1,a,*}

¹Shandong Technology and Business University, Yantai, Shandong Province

a. chrischris1314@qq.com

**corresponding author*

Abstract: As an innovative form of fiscal expenditure, government guidance funds play an increasingly important role in driving the development of the new economy and fostering new growth drivers. Establishing a scientific performance evaluation system for guidance funds is a key approach to comprehensively assessing policy effectiveness and operational quality. Based on the operational model and development status of government guidance funds in China, this study integrates the 5E theory to construct a suitable performance evaluation index system. By establishing a scientific performance evaluation mechanism, this paper aims to implement both constraints and incentives on fund utilization, measure input costs and resulting benefits, and ultimately assess fund management efficiency. This will enhance the leverage effect of guidance funds, enabling them to effectively support industrial upgrading and efficiency improvement.

Keywords: government guidance funds, 5E theory, performance evaluation

1. Introduction

In recent years, government guidance funds have developed rapidly, becoming a crucial force in driving economic growth and fostering innovation and entrepreneurship. These funds play a significant role in amplifying the effect of government fiscal resources, guiding private investment into key industries prioritized by the state, enhancing the efficiency of public fund utilization, and addressing "market failures." As China enters a stage of standardized development for government guidance funds, optimizing existing funds and improving operational precision have become central themes. By 2022, the scale and quality of government guidance funds were both emphasized, and the pace of new fund establishment slowed. According to statistics from Zero2IPO Holdings (01945.HK), as of the end of 2022, a total of 2,107 government guidance funds had been established in China, with committed capital of approximately 6.51 trillion RMB. Against the backdrop of China's transition to high-quality economic development, government guidance funds carry a critical mission. As an innovative fiscal tool, these funds must balance policy objectives with market-oriented operations, playing an active role in attracting private capital and promoting industrial development. Therefore, it is essential to establish a scientific, mature, and highly operable performance evaluation system for government venture capital guidance funds. Such a system will maximize the policy impact of

guidance funds, improve fund utilization efficiency, and enhance the quality and effectiveness of public services.

Academic research on government guidance funds has been ongoing. Some scholars have focused on the operational models of guidance funds in both domestic and international contexts. In China, equity investment and follow-on investment are commonly used mechanisms, while financing guarantees are less frequently adopted. Given that China's government venture capital guidance funds emerged relatively late, challenges such as fundraising difficulties, investment bottlenecks, and exit constraints remain prominent. Other scholars have examined the performance of government guidance funds, including the construction of performance evaluation index systems, measurement of the guidance effect, and implementation paths for performance evaluation. However, in the current dual-circulation economic environment, comprehensively analyzing the performance challenges of government guidance funds and constructing a systematic performance evaluation index system is of great significance in further amplifying the fiscal leverage effect of these funds. Against this backdrop, this study applies the 5E theory to propose key indicators for the performance evaluation of government guidance funds. The goal is to ensure that the evaluation system is comprehensive, systematic, scientific, and highly operable.

In conclusion, with the increasing scale and number of government guidance funds, strengthening performance evaluation has become more critical. This paper adopts the 5E theory as its theoretical foundation to construct a scientific and reasonable performance evaluation index system for government guidance funds. This system enables a more objective assessment of the actual performance of government guidance funds in specific fields or projects, enhances the scientific basis of decision-making, and mitigates subjectivity and arbitrariness present in traditional evaluation methods.

Furthermore, the proposed evaluation system will assist the government in conducting comprehensive assessments of fund investment and project operations, allowing for timely policy adjustments and improvements. This will facilitate better resource allocation, ensuring the optimal utilization of funds. Ultimately, such improvements will enhance the effectiveness and impact of guidance funds, providing stronger support for policy optimization and performance enhancement, thereby promoting economic development and industrial upgrading.

2. Development and Performance Evaluation of Government Guidance Funds in China

2.1. Classification and Operational Models of Government Guidance Funds in China

2.1.1. Classification of Government Guidance Funds in China

(1) Industrial Investment Guidance Funds. These funds are designed to promote the development of specific industries, including high-tech industries and strategic emerging industries. Government guidance funds support these industries through financial assistance and equity investment, driving technological innovation, industrial upgrading, and transformation.

(2) Venture Capital Guidance Funds. These funds support innovation and entrepreneurship, fostering the development of innovative enterprises. By investing in startups, technology parks, and other entrepreneurial projects, government guidance funds provide the necessary financial, technological, and market resources to build a robust innovation and entrepreneurship ecosystem.

(3) Infrastructure Investment Guidance Funds. These funds primarily support infrastructure and public services, promoting reforms in public service provision mechanisms, innovating financing models for public facilities, and encouraging private capital investment in infrastructure and public service sectors. They accelerate major infrastructure projects, ultimately enhancing the quality and efficiency of public services.[1]

2.1.2. Operational Models of Government Guidance Funds in China

(1) Stage Equity Participation. This model involves government guidance funds investing in enterprises during their initial establishment or key development stages by acquiring equity shares, thereby becoming one of the shareholders. The advantage of this model is that the government can participate in corporate decision-making and management through equity ownership, offering strategic guidance and resource support to foster business growth and development.

(2) Follow-up Investment. This model involves additional investment in enterprises that have achieved initial growth and market recognition, supporting their expansion and scaling. The advantage of follow-up investment is that the government can provide financial support and market expansion assistance based on the enterprise's operational status and market demand, accelerating its growth.

These two models can be flexibly applied in the operation of guidance funds, depending on the needs of different projects or enterprises. Additionally, government guidance funds can adopt other models, such as debt investment and cooperative investment, to achieve economic guidance and adjustment objectives.

2.2. Current Status of Performance Evaluation of Government Guidance Funds in China

In recent years, China has increasingly recognized the importance of establishing and improving the performance evaluation system for guidance funds, leading to the formulation of relevant policies at various levels. However, most existing performance evaluation systems for guidance funds remain incomplete, with evaluation criteria lacking comprehensiveness. Issues persist in practice, including insufficient evaluation standards and implementation details, as well as inconsistencies in evaluation methods and criteria. Exploring detailed operational guidelines for performance evaluation and constructing an index system that reflects the operational characteristics of guidance funds are essential for balancing the innovation-driven effects of guidance funds with the profitability of social capital.

2.2.1. National Level

The Regulations on Government Guidance Fund Management (State Council Order No. 525, 2016) specify the basic requirements and procedures for the establishment, management, and performance evaluation of government guidance funds. The Notice on the Issuance of the Performance Evaluation Index System for Government Guidance Funds (State Council Document No. 103, 2016) introduced a performance evaluation index system, covering economic benefits, social benefits, environmental impact, and innovation capacity. In 2020, the Ministry of Finance and the National Development and Reform Commission (NDRC) jointly issued the Notice on the Demonstration Work of Performance Evaluation of Government Guidance Funds, defining the evaluation objectives, principles, methods, and procedures. However, the national-level performance evaluation framework still lacks detailed implementation guidelines. Some evaluation indicators are difficult to quantify or measure, making the evaluation process less scientific and operationally feasible. The current system remains rigid, demonstrating weak adaptability to market, technological, and policy changes, and failing to reflect the actual performance of funds in a timely manner. [2] Additionally, the performance evaluation of government guidance funds lacks an independent regulatory and auditing mechanism, leading to potential distortions or biases in evaluation results and making it difficult to identify existing problems in the evaluation process.

2.2.2. Local Government Level

Provincial and municipal governments have issued corresponding policy documents based on local conditions to guide the performance evaluation of government guidance funds in their regions. For example, in Shandong Province, the Shandong Provincial Finance Department issued the Interim Measures for the Performance Evaluation Management of Provincial Equity Investment Guidance Funds in 2015, which detailed the basic principles and main criteria of the performance evaluation system. The evaluation system integrates qualitative and quantitative indicators, including efficiency indicators, financial indicators, and business development indicators. Quantifiable indicators are standardized, while non-quantifiable indicators are assigned evaluation grades, which are then converted into quantifiable values for comprehensive assessment. Despite these efforts, the current performance evaluation methods and index systems for local government guidance funds remain immature, lacking scientific, objective, and quantifiable evaluation methods and indicators. As a result, evaluation outcomes may be subjective and fail to fully reflect the actual performance of funds. [3] Furthermore, some local governments face challenges in evaluating government guidance funds due to limited evaluation expertise, varying levels of professional competency among evaluators, differences in data analysis skills, and inconsistent application of evaluation methodologies. These factors negatively impact the accuracy and reliability of evaluation results.[4]

3. Construction of a Performance Evaluation Index System for Government Guidance Funds Based on the Revised 5E Theory

3.1. Theoretical Logic of Government Guidance Fund Performance Evaluation—Revised 5E Theory

The United States was the first to adopt Economy, Efficiency, and Effectiveness as the core components of performance audit indicators, forming the 3E framework. Later, Environment and Equity were added to performance audit evaluations, expanding the 3E framework into the 5E framework. Economy refers to the effective utilization of resources and cost control in the auditing process. Efficiency reflects whether the auditing process is conducted in a highly efficient and rational manner without waste. Effectiveness assesses the extent to which output results achieve predetermined objectives. Environment and Equity emphasize fairness, reliability, and compliance with environmental regulations and sustainable development principles in the auditing process.

3.2. Construction of a Performance Evaluation Index System for Government Guidance Funds Based on the Revised 5E Theory

Based on the previous analysis, combined with the performance audit objectives of government guidance funds and the revised 5E theory, this study evaluates the economy, efficiency, effectiveness, environment, and equity of government guidance fund utilization. This approach fully reflects the use of government guidance funds, analyzes weak links and existing issues in the usage process, and subsequently designs a performance evaluation index system covering these five aspects.

3.2.1. Economy Indicators

The economic evaluation assesses the economic feasibility and rationality of fund utilization. Indicators include the economic benefits of the fund and the economic performance of invested enterprises, ensuring a reasonable relationship between input and output while preventing resource waste and inefficiency.

(1) Economic Benefits of the Fund.

Government guidance funds consist of fiscal funds and private capital. Fiscal funds prioritize capital security, while private capital emphasizes investment returns. This indicator includes: Return on Total Assets (ROA): Reflects the overall profitability of the guidance fund. Internal Rate of Return (IRR) of Exited Projects: Measures the profitability of investment projects upon exit. Asset Preservation and Appreciation Rate: Indicates the capital preservation status of the guidance fund.

(2) Economic Performance of Invested Enterprises.

This indicator evaluates the impact of guidance fund investments on invested enterprises. Sub-indicators include:

Debt-to-Asset Ratio reflects the capital structure of invested enterprises. Enterprises with a more reasonable debt-to-asset ratio receive higher scores. [5]

Net Profit Growth Rate measures the revenue impact of guidance fund investments. Enterprises with a lower net profit growth rate receive higher scores.

3.2.2. Efficiency Indicators

The efficiency evaluation assesses the efficiency and effectiveness of fund utilization. Indicators include fund management efficiency and market-oriented operations, ensuring the fund operates efficiently and achieves optimal resource allocation with limited resources.

(1) Fund Management Efficiency.

This indicator reflects the organizational structure and management model of the fund, evaluating decision-making speed, accuracy, and resource allocation efficiency. Sub-indicators include:

Time Required for Decision-Making

Scientific Validity of Decision Outcomes

Flexibility of Fund Utilization

Optimization of Resource Allocation

These indicators aim to improve the efficiency and quality of fund decision-making, maximizing the overall benefits of the fund.

(2) Market-Oriented Operations.

Government guidance funds serve as financial tools that combine government and private capital, enhancing the efficiency of public funds through market-based evaluation and operation methods. Market-oriented operations are key to achieving the fund's objectives, and the relevant indicators include:

Marketization of Fund Sources

Marketization of Investment Strategies

Marketization of Internal Management

Marketization of Exit Mechanisms

3.2.3. Effectiveness Indicators

Effectiveness evaluates the extent to which the fund achieves its policy objectives. Indicators include leverage effect, policy guidance, and policy implementation effectiveness, ensuring that fund investments generate substantial impact and transformation.

(1) Leverage Effect.

Government guidance funds activate private capital by directing investments toward key industries and regions prioritized by the government. The leverage ratio measures the fund's ability to attract private capital, highlighting the fund's role in using fiscal resources to amplify social capital. The leverage effect is demonstrated when the guidance fund invests in sub-funds with private capital participation, thereby expanding capital; sub-funds then co-invest with other private capital in startups,

further amplifying capital. [6] Indicators measuring this effect include leverage multiple of private capital and scale of sub-fund participation by the parent fund

(2) Policy Guidance.

Policy guidance measures the effectiveness of the government's policy direction through the establishment of guidance funds. Proportion of investments in specific sectors or enterprises assesses the fund's role in promoting specific regions. Proportion of investments in specific industries evaluates the fund's impact on targeted industries. Reinvestment ratio measures the fund's ability to attract high-quality local projects or draw external high-quality projects to the region.[7]

(3) Policy Implementation Effectiveness.

This refers to the impact of guidance funds on startups and local communities after fund deployment, assessing their effectiveness. Evaluation indicators include employment growth rate of funded enterprises, innovation output growth rate, R&D investment growth rate and investment progress ratio

3.2.4. Equity Indicators

Equity assesses the fairness and rationality of resource allocation and project selection within the fund. Indicators include fairness in resource distribution, equal opportunities, and transparency, [8] ensuring that fund investments promote social equity and balanced regional development.

(1) Fairness in Resource Allocation.

This indicator evaluates whether fund resources are distributed fairly and reasonably, ensuring equitable allocation and social justice. Sub-indicators include distribution of fund investments across different regions and industries, consideration given to disadvantaged groups and underdeveloped areas.

(2) Equal Opportunities.

This indicator assesses whether investment opportunities provided by the fund are fair and accessible, promoting inclusiveness and diversity in investments. Sub-indicators include transparency and fairness of the project application and selection process, support for SMEs, innovation projects, and various social organizations

(3) Information Disclosure and Transparency.

Government guidance funds must ensure transparency in investment projects and performance evaluation results to enhance decision-making fairness and credibility. This indicator evaluates transparency of the fund's decision-making process public disclosure of investment processes and project evaluation methods

3.2.5. Environmental Indicators

Environmental indicators assess the impact of the fund on the environment and its sustainability. These indicators include environmental impact assessments of investment projects and the fund's contribution to green economic development, ensuring that fund investments align with environmental protection goals and sustainable development.

(1) Environmental Impact Assessment of Investment Projects.

This indicator evaluates the direct and indirect environmental impact of funded projects, as well as environmental management and mitigation measures implemented during project execution. It helps measure the sustainability of projects and their commitment to ecological protection. [9] Evaluations consider:

- Establishment of environmental management systems
- Implementation of environmental protection facilities
- Environmental monitoring and assessment compliance

(2) Green Economic Development Contribution.

This indicator assesses the fund's role in promoting green industries by supporting green technology R&D, resource efficiency, and environmental sustainability. It considers:

- Fund support for green technology innovation and application
- Resource utilization efficiency in funded projects
- Reduction in resource consumption and environmental pollution
- Promotion of economic transformation and sustainable development

4. Conclusion

Based on the revised 5E theory, this paper constructs a comprehensive performance evaluation index system for government guidance funds. The proposed system encompasses multiple dimensions, including management efficiency, economic benefits, policy impact, and social benefits, providing a holistic view of the contribution of guidance funds to economic and social development. In practical applications, this index system not only helps the government manage and utilize guidance funds more effectively but also fosters deeper collaboration between the government and private capital, jointly promoting industrial upgrading and regional development. Future research can further explore the applicability of guidance funds under different economic conditions and policy environments and optimizing the evaluation system to better reflect the performance and impact of guidance funds

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