Article

2025 3rd International Conference on the Sociology of the Global Economy, Education, Arts and Humanities (GEEAH 2025)

Research on New Problems and Reform Prospects of the Budgetary Accounting System of Business Units

Xianqi Liu [1,*]

[1] Fujian Geotechnical Engineering Survey and Research Institute Co., Ltd., Putian, Fujian, 350108, China
* Correspondence: Xianqi Liu, Fujian Geotechnical Engineering Survey and Research Institute Co., Ltd., Putian, Fujian, 350108, China

Abstract: As an important pillar of the national public service system, the budgetary accounting system of institutions is directly related to the efficiency of the use of financial funds and the rational allocation of public resources. In recent years, with the increasing complexity of the economic environment, the deepening of the financial system reform and the public's demand for transparency and performance, the traditional budgetary accounting system has gradually revealed a number of non-adaptive problems. For example, such as the rigidity of the budgeting method, lack of supervision in the implementation process, outdated accounting basis, and insufficient scientific guidance in the performance evaluation system, among others. These problems not only restrict the effective performance of the functions of the institutions, but also may lead to the waste of funds and risks to institutional integrity. At the same time, the arrival of the digital economy era has put forward higher requirements for the informatization and refinement of budget management, while the existing system is still insufficient in the application of technology and system innovation. In this context, the study of new issues and reform paths of the budget accounting system of public institutions is not only an inevitable choice to improve the quality of public services, but also an important hand to promote the modernization of financial management.

Keywords: business units; budget accounting system; new problems; reform prospects

Received: 16 March 2025
Revised: 21 March 2025
Accepted: 20 April 2025
Published: 29 May 2025

1. Introduction

The budgetary accounting system of business units is an important part of China's financial management system, and its scientificity and effectiveness directly affect the level of public service provision. With the transformation of government functions and the improvement of financial transparency requirements, the limitations of the traditional budget accounting system in practice are becoming more and more prominent. Existing research focuses on the macro description of the system framework, and the exploration of dynamic issues and reform paths at the implementation level is still insufficient, especially in the lack of systematic analysis in the areas of performance evaluation, internal control and information technology adaptation. At present, institutions are generally faced with the reality of budgeting and actual demand disconnect, the implementation process is not flexible enough, accounting information lag, weak performance incentives and other dilemmas, which result not only from the inherent flaws in system design, but also from a lack of adaptability amid rapid changes in the external environment. It is worth noting that the global trend of government accounting reform has shifted from

"compliance-oriented" to "performance-oriented", emphasizing the combination of accrual and cost management, while the budget accounting system of China's business units is still based on cash basis, which is difficult to meet the demand for refined management. Emphasizing the combination of accrual and cost management, while the budget accounting system of China's business units is still based on cash basis, making it difficult to meet the demand for refined management. In addition, the potential of digital technology in budget management has not yet been fully released, and the synergistic effect of system innovation and technology empowerment needs to be explored. Based on the pain points of practice, this paper combines domestic and international reform experiences, and tries to build a system optimization framework that meets the requirements of the new era, providing a new perspective for cracking the practical problems and activating the reform momentum [1].

2. Overview of Budgetary Accounting System of Undertaking Units

2.1. Definition and Classification of Establishment

Institutions are non-profit legal entities that are set up by state agencies or other organizations, use state-owned assets, and are engaged in education, science and technology, culture, health, and other social welfare services, with public attributes and functional orientation as their core features. According to the function orientation and the degree of financial dependence, institutions can be divided into public welfare class I, public welfare class II and public welfare class III: public welfare class I assume the basic public service function, the funding by the financial full guarantee, such as compulsory education schools; public welfare class II to provide part of the marketable public service, the financial difference between the subsidy and the market-oriented income coexist, such as public hospitals; public welfare class III institutions focus on technical promotion or professional services and are gradually transitioning toward market-oriented operations. Classification differences directly affect the logic of the implementation of the budget accounting system, for example, the first category of public welfare focuses on budgetary rigidity and fund compliance management, while the second category of public welfare needs to balance the accounting rules of financial allocations and operating income. This classification system not only reflects the gradient characteristics of China's public resource allocation, but also reveals the differentiated needs of different types of units in budgeting, execution and performance evaluation, providing a structural analysis basis for subsequent system optimization.

2.2. Connotation and Role of Budget Accounting System

The budget accounting system is the core framework for financial management of institutions, taking budget preparation, execution and reporting as the chain, ensuring compliance and efficiency in the allocation of public resources by standardizing the process of fund collection and expenditure and accounting rules. Its connotation covers budget target setting, resource allocation mechanism, accounting recognition basis and information disclosure standards, and its core lies in combining the rigid constraints of financial discipline with the dynamic needs of business activities. The role of the system can be analyzed from three perspectives: at the level of resource allocation, through the decomposition of budget targets and the control of fund allocation, it guides the alignment of public service supply with the strategic goals; at the level of financial supervision, with the help of accounting records and final reports, it forms a full-cycle tracking of the flow of funds, and guards against the risk of misappropriation and wastage; at the level of performance management, with the support of budget execution data and costing results, it builds a system of evaluation of the effectiveness of expenditures, and pushes the use of resources from the "compliance" to the "efficiency". At the performance management level, relying on budget execution data and cost accounting results, we build an expenditure efficiency evaluation system to promote the transformation of resource utilization

from "compliance-oriented" to "value creation". Especially in the context of the reform of the classification of public institutions, for instance, public welfare class I units should maintain stricter budgetary control to ensure the provision of essential services. In contrast, class II units should explore more flexible budgeting mechanisms to balance government subsidies with market-generated income. The design of the system needs to take into account the rigidity of policy implementation and flexibility of management, and become a key pivot connecting financial control and service effectiveness.

3. Analysis of New Problems of Budget Accounting System for Business Units

3.1. Problems in Budget Preparation

The practical dilemma in the budgeting process of business units stems from the structural mismatch between system design and dynamic demand. The traditional base budget method has long been dominant, and the logic of preparing budgets based on historical expenditure data has formed a path of dependence, leading to a disconnect between resource allocation and business innovation, typically manifesting in the fact that budgets in scientific research units often fail to keep pace with rapid technological iterations, and the difficulty of adapting training funds for educational institutions to meet the new requirements of teachers' capacity enhancement. The lack of a project pool management mechanism has exacerbated budget fragmentation, with some units adopting a "net-spreading" filing strategy, splitting the overall project into multiple small and micro-expenditure entries in order to avoid audits, which overwhelms the audit system and leads to decentralized use of funds and potential regulatory blind spots. The weakness of the cross-departmental coordination mechanism further magnifies the problem, as information asymmetry between the financial and operational departments is common, and operational needs are difficult to accurately translate into budget language, with the health system often having a case of decoupling the budget for the stockpile of epidemic-prevention materials from the CDC's operational planning. The opacity of the budget adjustment mechanism has given rise to a double contradiction: on the one hand, the rigidity of the constraints is too strong, limiting the ability to respond to emergencies, such as lagging in the deployment of funds for disaster relief in the case of public emergencies; on the other hand, there is too much room for discretion, creating opportunities for non-transparent funding requests, as some units strategically use the supplemental declaration procedure to access additional financial resources [2].

3.2. Problems in Budget Execution

The phenomenon of budget execution failure in business units reflects the double weakening of institutional constraints and technical support. The time lag between budget approval and fund disbursement leads to lagging implementation progress, grass-roots units are often forced to compress key operational expenditures due to unavailability of funds in the early stage, for example, some of the cultural venues' renovation projects due to the first half of the delayed allocation of funds was forced to delay the construction until the winter season, which directly affects the quality of public services. The failure in budget execution reflects both the lack of consistent enforcement and excessive discretionary adjustments: some units of extrabudgetary expenditures lack effective approval process, unauthorized changes in the use of funds are common, such as equipment procurement funds diverted to the administrative reception; other units due to over-emphasis on budgetary rigidity in the face of public health emergencies cannot be adjusted in time to the procurement of epidemic-prevention materials plan. The data split between the centralized treasury payment system and the unit's internal financial module has exacerbated regulatory difficulties, and financial staff are prone to cross tabbing or duplicating expenditures in manual reconciliations, led to the erroneous inclusion of drug procurement expenditures in the equipment purchase account over multiple fiscal years. The disconnection between performance assessment indicators and budget execution data makes it

difficult to quantitatively assess the effectiveness of the use of funds, and expenditure on teacher training in the field of education often stays at the level of superficial indicators such as the number of participants, failing to form a causal argument with the improvement of teaching quality.

3.3. Problems in Accounting

The deficiencies in the accounting process of institutions reflect the deep-rooted contradictions in the change of the system. The mixed application of the cash basis and accrual basis creates a conflict in the basis of recognition. Typical examples are that when scientific research projects are implemented across years, the full amount of funds received in advance is included in the current income, resulting in a mismatch of income and expenditure periods, while the subsequent costs and expenditures need to be recognized in phases, and that a certain seismic monitoring organization does not divide the three-year project funds between the right and the responsibility, which results in the annual financial report misrepresenting the actual consumption of economic resources. The accounting chart of accounts lacks adaptability to actual business activities. For example, market-based income and government subsidies in public welfare category II units are both recorded under the "business income" account, making it difficult to distinguish the source and nature of funds, making it difficult to distinguish the attributes of the source of funds; a provincial theater mixes the income from ticket sales for performances with the financial special account, resulting in distorted performance evaluation data. The data flow obstacles between digital systems have led to inefficiencies in account processing, the lack of in-depth docking between the budget management module and the accounting system, and the need for financial staff to manually convert the data format, as a CDC reagent procurement data in the ERP system did not automatically generate accounting vouchers, resulting in a discrepancy in the accounts of inventory materials in the past three months. The lack of a cost accounting system has weakened management effectiveness, as most units still replace the concept of cost with expenditure, and have not established the operation cost method or the project cost aggregation model. Educational institutions are unable to accurately measure the per capita training costs of different majors, which hinders the refinement of financial allocation standards. These problems highlight the disconnect between accounting rules and the substance of operations, and require urgent technical corrections.

3.4. Problems in Performance Evaluation

The shortcomings of the performance evaluation system for public institutions essentially reflect a misalignment between value measurement standards and management objectives. The design of indicators focuses excessively on compliance review, for example, the cultural heritage protection program takes the "funding implementation rate" as the core assessment indicator, ignoring the quality of cultural relics restoration and the public's sense of access to culture and other substantive benefits, which leads to deviation of the evaluation results from the goal of public service improvement. There are structural deficiencies in the data collection process, and the information silos between the business system and the financial system have resulted in the fragmentation of performance data. The data on reader participation in a reading promotion program of a municipal library remained in the activity registration form, and could not be docked with the financial integration platform to form an analyzable dataset. The independence of the third-party evaluation mechanism is insufficient; there is a hidden interest link between the commissioning party and the entrusted organization; some environmental impact assessment projects have evaluation organizations directly appointed by the department that allocates the funds, which raises concerns about the objectivity of the evaluation conclusions. The causal chain between performance results and budget allocation is broken, and the allocation of funds for basic public health services in primary medical institutions has not

been dynamically adjusted according to the effects of chronic disease management, resulting in a vicious cycle of "focusing on inputs but not outputs" [3]. These contradictions reveal that performance evaluation has not yet broken through the formal compliance framework, and that it is urgent to build a closed-loop results-oriented management mechanism.

4. Prospects of Reform of the Budgetary Accounting System for Business Units

4.1. Objectives and Principles of Reform

Reform of the budget accounting system for business units requires the construction of a multidimensional linkage system framework, aims to reconcile the divergent objectives of financial reporting for decision-making and budgetary accounting for compliance control. The technical path focuses on the integration of the two systems, and the accrual-based financial accounting and the cash-based budget execution data in the accounting information system to ensure a consistent underlying logic and eliminate information silos generated by the current parallel bookkeeping. The principle of reform emphasizes the classification and adaptation mechanism, designing differentiated capital expenditure recognition rules and cost compensation modes for the financial security characteristics of public welfare category 1 institutions and the market expansion needs of public welfare category 2 institutions. The principle of transparency requires the establishment of a full-cycle traceability mechanism for the flow of budgetary funds, and the use of blockchain technology to realize the verifiability from budget approval to end payment, ensuring transparent and traceable oversight of sensitive funds, such as those allocated to scientific research. Dynamic optimization orientation promotes the flexible design of the system, reserving emergency adjustment channels for special matters within the framework of centralized treasury payment, for example, emergency procurement funds in public health emergencies can break through the current year's budget subject limitations but need to be triggered by the simultaneous supervision of smart contracts. From a value management perspective, it is necessary to reconstruct the asset valuation model by exploring a usage-based depreciation method rather than relying on a straight-line method for specialized assets such as major scientific research equipment, so as to match the depletion of asset value with the output of scientific research results. These technical corrections need to be rooted in a unified data element standard, eliminating the semantic gap between the financial integration platform and the unit ERP system, and ensuring that data related to budget preparation, execution, and performance evaluation moves seamlessly across heterogeneous systems.

4.2. Main Directions and Contents of the Reform

Reform of the budgetary accounting system for business units needs to be anchored in the direction of technical adaptation of accounting rules to governance needs. At the level of integration of accounting bases, the precise coupling mechanism of accrual and cash basis is explored, and the two-dimensional recognition rule of "budget cash flow + consumption of economic resources" is established for inter-period projects, so as to solve the problem of staggered matching of funds received in advance for scientific research projects. Reorganization of the account system focuses on business substance penetration, splitting financial subsidies and market revenue funds into "guaranteed business income" and "competitive service income" independent accounts, to rectify the distortion caused by mixing a museum's cultural and creative revenues with financial allocations. Upgrading the budget execution informatization architecture focuses on eliminating data semantic faults. Based on the financial business middleware technology, the automatic mapping of metadata between the budget module and the ERP system is realized to ensure that the CDC's reagent procurement instructions can trigger the intelligent generation of accounting vouchers. The integration of performance data flow requires the construction of a closed-loop link of "business occurrence-financial records-effect feedback", and the reader

participation data of reading promotion activities in libraries are directly linked to the performance evaluation model after cleansing and conversion to break the information fragmentation dilemma. Asset measurement rule innovation introduces the concept of "depreciation of service potential", and depreciation of major scientific research equipment is calculated according to the actual intensity of use, so the phenomenon of inflated net asset value of precision instruments in a laboratory will be effectively curbed. The design of emergency budget channel is embedded with intelligent contract supervision, and the procurement funds for public health emergencies automatically trigger an automated audit mechanism when the subject limit is broken, balancing the dual goals of efficiency and compliance. These technological breakthroughs constitute the core kinetic energy of the system iteration [4].

4.3. Implementation Steps and Safeguards for the Reform

The implementation of the reform of the budget accounting system for business units requires the construction of a step-by-step technical implementation framework. The data governance layer should first establish standardized metadata across all budgeting elements. This is supported by a unified financial component library, which ensures consistent semantic mapping between budgetary items and financial accounting categories, so as to solve the problem of mismatch between budgetary items and accounting accounts in the CDC's equipment procurement. The system upgrade adopts a modular approach, featuring a "core module + plug-in expansion" architecture, and develops the performance data collection interface on the main chain of the treasury payment system, so that the funding of horizontal projects of a provincial university can automatically trigger the rules of project expenditure and income matching. The deployment of intelligent regulatory tools will proceed in phases. In the first phase, a blockchain traceability module in the field of scientific research funding to implement penetrating verification of the flow of funds for inter-annual projects, and the second phase expanding to the full-chain verification of government procurement contract performance. Capacity building for personnel focuses on practical application, utilizing a sandbox training system, in which grassroots accountants simulate the parallel bookkeeping operation of market-oriented income and expenditure of public welfare category 2 organizations in a virtual environment, so as to reduce the risk of mishandling the system during the transition period. The dynamic assessment mechanism designs a two-way feedback channel, and the budget adjustment data of the hospital's new drug R&D project is cleansed, standardized, and fed back into the system optimization model, thereby forming a data-driven feedback loop for continuous policy refinement. The legal convergence level introduces operational guidelines for the conversion of transitional subjects, clarifies the adjustment path for differences between government accounting standards and the current system, and clarifies the timing of heritage asset recognition, eliminating ambiguities in implementation at the grassroots level. The sustainability of the system depends on effective alignment between technical solutions and organizational transformation, and it is necessary to maintain institutional elastic space in the digital governance ecology [5].

5. Conclusion

The reform of the budget accounting system for business units is both a challenge and an opportunity. Research reveals that the core of the current problem lies in the tension between the traditional system and the dynamic environment, which is manifested in systemic contradictions such as rigid budgeting, insufficient execution constraints, lagging accounting information and deflated performance evaluation. To resolve these contradictions, it is necessary to start with top-level design and promote the transformation of the system in the direction of "performance prioritization, technology-driven innovation, and comprehensive oversight". The success of the reform not only depends on the improvement of the system itself, but also needs to take into account the simultaneous

optimization of the organizational culture and external supervision mechanism. Under the contradiction between limited financial resources and growing demand for public services, focus on balancing compliance and flexibility, mitigating risks, and enhancing responsiveness to changing public service demands.

References

1. J. Diamond, *Budget System Reform in Emerging Economies: The Challenges and the Reform Agenda*. Washington, DC: Int. Monetary Fund, 2006. ISBN: 9781589064744.
2. E. G. Flamholtz, "Accounting, budgeting and control systems in their organizational context: theoretical and empirical perspectives," *Account. Organ. Soc.*, vol. 8, no. 2–3, pp. 153–169, 1983, doi: 10.1016/0361-3682(83)90023-5.
3. A. Kirama and A. W. Mayo, "Challenges and prospects of private sector participation in solid waste management in Dar es Salaam City, Tanzania," *Habitat Int.*, vol. 53, pp. 195–205, 2016, doi: 10.1016/j.habitatint.2015.11.014.
4. J. L. Mikesell and D. R. Mullins, "Reforming budget systems in countries of the former Soviet Union," *Public Adm. Rev.*, vol. 61, no. 5, pp. 548–568, 2001, doi: 10.1111/0033-3352.00127.
5. N. Hepworth, "Government budgeting and accounting reform in the United Kingdom," in *Models of Public Budgeting and Accounting Reform*, vol. 2, pp. 115–132, 2002. ISBN: 9264198970.