

Issues and Countermeasures in the Accounting Treatment of Corporate Data Assets: A Case Study of TRS

Enyu Zhang

School of Accounting, Dongbei University of Finance and Economics, Dalian, 116025, Liaoning, China

Keywords: Data assets; Accounting treatment; Recognition and measurement

Abstract: The marketization of data as a factor of production is a prerequisite for achieving the goal of a “Digital China.” The current Chinese accounting standards system lacks clear and actionable guidance on the accounting treatment of data assets, posing an urgent and significant challenge. We introduce TRS, a data-intensive firm, as a case study. Using official documents such as its financial statements, we examine the firm’s accounting treatment of data assets and compare these practices with the prevailing standards. We further investigate the problems embedded in this process. Our findings indicate that the firm lacks a clear boundary for the recognition of data assets, exhibits a pronounced tendency toward expensing in its measurement treatment, and provides relatively vague disclosures. To address these issues, we propose that standard-setters should clarify the recognition boundary for data assets, firms should establish internal systems for cost accumulation and valuation support, and regulators should promote the construction of a valuation standards framework.

1. Introduction

In the digital economy era, the value-creation capability of data is reshaping the core competitiveness of enterprises, and its role and importance have become increasingly prominent. In 2023, China’s digital economy accounted for 42.8% of GDP and contributed 66.45% of GDP growth (CAICT, 2024)[1]. IDC predicts that the volume of data generated from 2024 to 2028 will be at least 2.2 times that of the past decade. The Interim Provisions on Accounting Treatment of Enterprise Data Resources (issued by the Ministry of Finance, August 2023), explicitly require enterprises to recognize data assets in their financial statements, which in turn demands the improvement of data trading and circulation mechanisms. As enterprises grow more dependent on data assets, these assets have become a critical foundation for corporate valuation. However, due to the complex technical attributes and operational characteristics of data assets, and the fact that current accounting standards remain predominantly principle-based, enterprises face considerable difficulties in recognizing and accounting for data assets on their balance sheets[2,3].

We take TRS as an example. As a leading firm in China’s big data industry, TRS became one of the first pilot enterprises to recognize data assets in financial statements in 2024. The company holds over 40 invention patents and more than 1,000 software copyrights, and has launched a series of SaaS products. It has built a business model underpinned by high-value data assets. Although its

core business relies heavily on data assets, its accounting treatment suffers from problems such as unclear recognition criteria, a pronounced tendency to expense related costs, and opaque disclosures. As a result, the financial statements fail to accurately reflect these critical data assets.

Existing research has primarily focused on the definition, recognition, measurement, and disclosure of data assets[2-4]. However, these studies offer limited consideration of firms' actual operational practices, tend to adopt a narrow focus, and seldom conduct a multidimensional analysis. There is a lack of literature that uses real-world case studies to examine the accounting treatment issues of data assets under current accounting standards.

We center our analysis on the accounting treatment of data assets. By collating the data asset disclosure practices from TRS's annual reports, we identify the operational weaknesses of the current institutional framework. Moreover, we propose recommendations from three dimensions—accounting standard design, internal corporate system construction, and external regulatory coordination—with the aim of establishing a practical reference and policy support for the accounting treatment system for data assets.

The innovations of this paper are threefold. First, taking the four phases of the accounting process (recognition, measurement, recording, and reporting) as the focal points and incorporating the business model of a data-intensive firm, we comprehensively summarize the accounting methods for data assets, thereby providing a reference for firms that have yet to recognize data assets on their balance sheets. Second, we place greater emphasis on actual corporate practices by extracting information from financial statements to induce accounting treatment methods, which allows us to uncover matching difficulties and dilemmas and to offer practical accounting treatment support for enterprises. Third, our analysis considers both legal provisions and accounting standards simultaneously, contributing to the improvement of data transaction regulations.

2. Data Assets and Accounting Treatment Elements

2.1 The Concept of Data Assets

2.1.1 Characteristics of Data Assets

As a novel category of intangible assets, data assets possess three inherent attributes: informational, technological, and economic. Data assets depend on technology to unlock their value, requiring digital tools throughout their entire lifecycle[5]. Yet data sources are fragmented, involve numerous parties, and feature complex ownership relationships, all of which increase the difficulty of accounting recognition. Data assets are characterized by low marginal costs of use, while their economic benefits are contingent upon application scenarios and the level of processing. Raw data must be processed to generate value, and future benefits are difficult to predict, posing significant challenges to fair value measurement and asset impairment testing. Moreover, data assets become more valuable with use; however, due to their complex formation process, ambiguous cost boundaries, and an immature trading market, firms face difficulties in determining appropriate recognition and measurement methods, and disclosures lack uniform standards[6]. Against this backdrop, the subsequent sections of this paper draw on the TRS case to analyze the financial characteristics of data assets and explore the institutional obstacles and practical difficulties across the entire accounting process.

2.1.2 Classification of Data Assets

Data assets can be classified in many ways. For purposes of valuation and accounting treatment, classification based on asset use is more appropriate. The value that data assets create for an

enterprise varies with changes in application scenarios and business models. Accordingly, data assets can be categorized into three types: data assets for internal use, data assets with ownership transferred, and data assets for which usage rights are granted.

2.2 The Four Elements of Accounting Treatment

At present, no dedicated accounts for data assets have been established under International Financial Reporting Standards (IFRS), U.S. Generally Accepted Accounting Principles (US GAAP), or Chinese Accounting Standards (CAS). Instead, existing classification frameworks, such as those for intangible assets or inventory, are relied upon. Specifically, data resources are brought within the scope of accounting treatment through supplementary definitions or application guidance. In addition, the European Union’s Data Governance Act defines data as “digital assets” and proposes a “data trust” mechanism to achieve the separation and controllable management of data ownership, thereby institutionally promoting the circulation of data as an asset.

Table 1. Comparison of Core Differences across Standards

Standard	Classification Basis	Recognition Criteria	Measurement Method	Disclosure Requirements
IFRS	Intangible assets (IAS 38)	Identifiability, control, future economic benefits	Historical cost / revaluation method (requires an active market)	Amortization policies and impairment test results must be disclosed
US GAAP	Intangible assets (ASC 350)	Separability, contractual rights	Historical cost only	Emphasis on asset life and amortization details
Chinese CAS	Intangible assets / inventory	Clear application scenarios, controllable economic benefits	Historical cost / fair value (conditional)	Disclosure of data classification and valuation parameters required
EU Proposal	Digital assets (conceptual)	Data trust with separation of rights	No uniform regulation	Emphasis on data sharing and compliance explanation

Chinese Accounting Standards for Business Enterprises (ASBE) prescribe a standard process for asset treatment comprising four critical stages: recognition, measurement, presentation, and disclosure. This institutional design runs through the entire financial reporting preparation process and serves as a vital foundation for ensuring that accounting information is faithful and reliable.

Specifically, at the recognition stage, ASBE No. 6—Intangible Assets stipulates that an asset must be clearly identifiable, the enterprise must be able to exercise control over it, and it must be expected to generate future economic benefits.

Second, with respect to measurement, ASBE No. 39—Fair Value Measurement specifies two primary measurement approaches: the historical cost method and the fair value method.

Third, in the presentation process, enterprises are required, in accordance with ASBE No. 30 and other relevant regulations, to classify assets scientifically and present them in a standardized manner. When establishing balance sheet line items, the purpose, liquidity, and intrinsic nature of assets should be considered simultaneously to ensure consistency in the overall presentation logic.

Finally, enterprises should disclose relevant background information in the notes to the financial statements. Specific provisions in ASBE No. 7, No. 8, and No. 27 emphasize, respectively, the

completeness of disclosed data and the adequate presentation of quantitative information.

In examining how to account for data assets, whether these four criteria can be operationally satisfied constitutes the fundamental prerequisite for determining whether such assets can be recognized on the balance sheet (Table 1).

3. Current Status and Problem Analysis of Accounting Treatment for Data Assets at TRS

3.1 Classification of Data Assets at TRS

TRS's data assets can be broadly divided into the following three categories.

The first category comprises data assets for internal use. These assets generally consist of corpora, knowledge graphs, and semantic analysis models accumulated over an extended period. They serve as the foundational layer supporting the firm's operational capabilities, are not sold or licensed externally, remain entirely under the firm's control, and represent the most irreplaceable core component.

The second category comprises data assets with ownership transferred. Ownership of these data packages is transferred to the customer upon delivery. Examples include professional data packages such as government-oriented public opinion systems and risk analysis platforms for the financial industry. The ownership of such data is clearly established and generally satisfies the recognition criteria for intangible assets.

The third category comprises data assets for which usage rights are granted. Taking SaaS services such as "Shujia" and "Wangcha" as examples, the company provides customers with data interfaces, granting them the right to use the data but not ownership of the data.

3.2 Current Accounting Treatment of Data Assets at TRS

3.2.1 Recognition of Data Assets at TRS

TRS recognizes data assets in accordance with the criteria set out in ASBE No. 6—Intangible Assets. In practice, data platforms and service products that have been commercially operationalized are included within the scope of asset recognition. For example, as disclosed in its annual report, platforms such as "Shujia" and "Wangcha" are recognized and managed as intangible assets. These platforms rely on structured data and algorithmic models, possess standardized output capabilities, and can generate steady revenues. For accounting purposes, the company initially measures such assets using the historical cost method, records them under "Intangible Assets," and amortizes them on a straight-line basis over their estimated useful lives (generally five years).

3.2.2 Measurement of Data Assets at TRS

In accordance with ASBE No. 6—Intangible Assets, TRS initially measures data assets using the historical cost method. Expenditures incurred in forming data assets—such as collection and cleansing costs—are accumulated as development costs. Those portions that are identifiable, are expected to generate future economic benefits, and meet the capitalization criteria are recognized as intangible assets; the remainder is expensed and charged to profit or loss for the current period. For subsequent measurement, the company adopts a combination of straight-line amortization and periodic impairment testing. The annual report reveals that platform-type data assets have useful lives of 5 to 10 years, with amortization expenses recognized within administrative expenses for the period. For typical government-oriented data platforms, the contract period broadly matches the amortization period. However, for certain public opinion products characterized by high information timeliness and rapid updates, the actual useful life is shorter than the amortization

period, potentially overstating the carrying residual value.

Based on the classification of data assets discussed above and relevant information from TRS’s 2023 annual report, the initial and subsequent measurement methods for its data assets are summarized in Table 2.

Table 2. Summary of Initial and Subsequent Measurement Methods for TRS’s Data Assets in 2023

Data Asset Type	Typical Examples	Initial Measurement	Subsequent Measurement
Internal use	Corpora, knowledge graphs, semantic models	Historical cost method; R&D expenditures capitalized as intangible assets	5-year straight-line amortization; impairment test performed when impairment indicators exist
Ownership transferred	Government public opinion platforms, customized systems	Measured at contract price, or historical cost capitalization	5-year amortization, matched with the overall useful life of the platform
Usage rights granted	“Shujia” and “Wangcha” SaaS platforms	R&D investment capitalized, recorded as “self-developed software” under intangible assets	5-year straight-line amortization; some assets affected by customer renewals

In conducting impairment tests, the company follows the requirements of ASBE No. 8—Impairment of Assets. Specifically, at the end of each year, the company assesses whether there is any indication that an intangible asset may be impaired. If the recoverable amount of an asset is found to be lower than its carrying amount, an impairment loss is recognized. The recoverable amount is generally determined as the higher of “fair value less costs of disposal” and “value in use,” where the value in use is computed by discounting estimated future cash flows. However, the future benefits of data platforms often depend on customer renewals and the firm’s data-updating capability; consequently, the assessment results rely heavily on management’s own judgment and involve a high degree of subjectivity.

In 2023, amortization of data assets amounted to RMB 116 million, representing 50.4% of the annual net profit; the corresponding impairment loss on data assets accounted for 62.5% of total asset impairment losses. This demonstrates that data assets occupy a critical position in the firm’s financial performance.

3.2.3 Disclosure of Data Assets at TRS

TRS does not present a separate “Data Assets” line item on the balance sheet. Instead, data-related assets are included within “Intangible Assets” under the secondary category “Software.” Notes to the 2023 annual report indicate that the amount of internally generated intangible assets reached RMB 199.78 million, accounting for over 82% of total additions to intangible assets. In the asset breakdown, the company uses broad terms such as “Self-Developed Software” and “Other Intangible Assets”; the granularity of asset information disclosure is low, making it difficult to ascertain the specific composition of these assets.

Furthermore, although the company provides an overall description of its intangible asset amortization policy and accounting estimates—for example, an estimated useful life of five years and the straight-line method of amortization—it does not distinguish between different types of data assets (e.g., SaaS platforms vs. revenue-generating projects based on delivery models) in terms of their useful lives, revenue-generation patterns, and amortization profiles. This increases the difficulty for external users of the financial statements to understand the actual usage conditions and

value changes of various data assets. In the information disclosure section, the company lists numerous software copyrights and platform achievements, but the relevant content largely remains at the level of R&D demonstrations or publicity, without being linked to specific accounting treatments. As a result, users find it difficult to discern from the financial statements the accounting representation of the data assets.

3.3 Problems in the Accounting Treatment of Data Assets at TRS

3.3.1 Ambiguous Identifiability Judgment and Narrow Scope of Capitalization

First, the company's recognition scope is narrow: only those data platforms that can be directly traded externally are included in the recognition scope. Raw corpora and other resources on which algorithm training relies are not recognized as assets; rather, their costs are recorded as expenses. This approach is inconsistent with the economic substance of data and is likely to result in a distorted financial presentation of the firm's asset structure. Second, the company lacks explicit criteria for judging the identifiability and control of data. Because data sources are complex, usage rights can easily overlap, and ownership boundaries are often ill-defined, the firm tends to expense data directly out of prudence, and its judgments are subjective and conservative. Third, accounting standards address data asset treatment only at the principle level, without clarifying data identification and valuation methods, and provide no corresponding processing pathways for the newly emerging data ownership structures. This makes it difficult for firms to recognize data assets on their books.

3.3.2 Difficulty in Cost Aggregation and Inconsistent Valuation Approaches

The formation of data assets requires multi-department collaboration across multiple stages, yet the company has not disclosed a specific cost accumulation mechanism. Specifically, key details are unclear, which weakens the comparability and verifiability of the financial treatment. In addition, the company adopts the historical cost method as its main measurement basis but does not clearly explain the valuation logic and criteria for value judgment. More concretely, the company roughly splits its data platform assets, lacks refined treatment, and has not attempted to dynamically update data asset values or to establish a verifiable valuation model. As a result, the carrying amount may not accurately reflect the future earnings potential of the data assets.

3.3.3 Low Granularity of Presentation and Lack of Transparency and Relevance in Disclosures

First, core systems that appear repeatedly in the annual report, such as the "Haibei Search Database," are not separately listed by name and amount in the notes to intangible assets, nor are their amortization methods and financial impacts disclosed. These asset items are uniformly presented under categories such as "Self-Developed Software," resulting in coarse granularity of information.

Second, a large number of R&D achievements and platform construction outcomes described in the annual report are not reflected in the accounting notes, and core accounting information—such as the recognition status of the systems, measurement methods, and amortization periods—is not clarified. This weakens the link between accounting data and actual operational results and reduces the comparability and verifiability of the financial statement information.

Moreover, in accordance with the requirements of ASBE No. 6—Intangible Assets, enterprises should explain the relevant circumstances of intangible assets; for significant assets, they should also supplement information such as usage scenarios. However, TRS's disclosures are brief,

offering no clear assessment or sensitivity analysis of the operational status of different platform systems, resulting in insufficient information transparency (Table 3).

Table 3. Comparison of TRS’s Disclosure of Data Assets with the Requirements of Accounting Standards

Disclosure Requirement (ASBE No. 6)	TRS’s Actual Disclosure
Presentation of various intangible assets and their composition details	Uniformly reported as “Software” assets; names and amounts of individual platform systems not listed item by item
Description of the method of formation, useful life, and amortization method	Disclosed generic policies (5-year straight-line method); no differentiation of amortization methods for different data assets or systems
Disclosure of the economic benefit pathways and control methods for significant intangible assets	No explanation of usage scenarios, revenue structures, or the existence of control mechanisms for each system
Provision of the basis for impairment testing and the calculation basis for value in use	Impairment explanation is vague; does not disclose whether impairment logic is differentiated across systems, nor does it present discount parameters or sensitivity analyses

4. Recommendations for Improving the Accounting Treatment of Data Assets

4.1 Improvements at the Accounting Standards Level

4.1.1 Enhancing the Identifiability and Control Criteria

When addressing the recognition of data assets, enterprises frequently encounter difficulties in judging whether a data resource is “identifiable,” “controllable,” and “capable of generating economic benefits.” These difficulties arise both from the lack of clarity in the recognition criteria prescribed by accounting standards and from the high degree of technological dependence and diverse usage patterns characteristic of data assets. We propose that, on the basis of the Interim Provisions on Accounting Treatment of Enterprise Data Resources, the criteria for determining “separability” and “controllability of economic benefits” be further refined, thereby enhancing the operability of accounting recognition.

For “separability,” the approach could draw on the provisions on “contractual rights” in ASBE No. 6—Intangible Assets. For instance, enterprises could be required to use “data licensing agreements” and “data transaction records” to demonstrate control and the right to independent transfer. Enterprises could also incorporate blockchain records that capture data usage boundaries and access behavior to substantiate “exclusivity.”

To judge whether “economic benefits are controllable,” a standard of “quantifiable expected returns” could be introduced. Enterprises would assess the expected inflow of economic benefits by reference to the commercial value of the data, supported by indicators such as licensing fees, customer contracts, and platform activity levels.

4.1.2 Establishing Classified Measurement Guidance That Distinguishes Usage Attributes and Value Models

Most enterprises recognize and measure data assets under the logic of “intangible assets,” an approach that overlooks the differences among data assets in terms of the types of rights and

revenue models. From the perspective of legal and policy practice, data assets involve three types of rights—the “right to hold data resources,” the “right to process and use data,” and the “right to operate data”—reflecting the diversity of value-creation pathways.

Future accounting policies should refine classified measurement. This would, on the one hand, help enterprises accurately evaluate and record economic benefits, enhancing the transparency of business information, and, on the other hand, provide financial decision-support to investors. For example, when an enterprise sells integrated and processed data products, it could separately measure the input costs and the portion related to the right to operate, thereby clearly recognizing the revenue structure and making the financial statement information more faithful and complete. Classified measurement must be premised on verifiability, supported by uniform valuation rules, standardized contract disclosure templates, and audit implementation standards, so as to ensure that measurement results comply with relevant principles.

4.1.3 Optimizing the Presentation and Disclosure Mechanism by Introducing Separate Line Items and Standardized Notes

Enterprises typically include data assets within the “software” category under intangible assets for presentation purposes. This results in a lack of structured presentation of financial information and hinders users’ ability to identify these assets. We recommend establishing “Data Assets” as a primary line item on the balance sheet. Under this primary item, secondary line items such as “Self-Use Data Assets” and “Transactional Data Assets” should be created. Furthermore, a unified set of note disclosures—including the recognition basis, amortization policies, fair value measurement approaches, and impairment testing procedures—should be provided. A uniform chart of accounts and standardized note disclosure templates would enhance the comparability and understandability of information on data assets and serve the intended policy objectives.

4.2 Recommendations for Operational Practices at the Enterprise Level

4.2.1 Establishing a Data Asset Identification and Evaluation Mechanism

Data-driven enterprises, such as TRS, should formulate a unified data identification and classification mechanism. Specifically, whether a data resource meets the asset recognition criteria should be judged on the basis of “controllability, economic viability, and traceability.” In implementation, the boundaries of data assets should be delineated by, for example, configuring access rights. We also recommend that enterprises establish a “Data Asset Management Committee,” involving multiple departments in the data identification process, so as to strengthen the objectivity of judgment and improve the applicability and implementation efficiency of the mechanism. Huawei, for example, established a similar body in 2020 to safeguard asset recognition.

4.2.2 Building a Cost Accumulation and Valuation Support System

The long development chain and extensive cross-departmental collaboration involved in creating data assets can easily lead to chaotic cost accumulation. Enterprises should set up project-specific accounts, clearly define cost stages, and use cost tags within their ERP systems to track the paths of resource inputs. In current valuation practices, enterprises typically combine the cost approach and the income approach, supplemented by a range of technical means to validate and adjust asset values[7]. For data assets with trading potential, enterprises should explore embedding multiple valuation approaches into the asset formation process, developing internal valuation models, or engaging third-party appraisal support.

4.2.3 Improving Financial Statement Presentation and Management Commentary

Firms like TRS often report data-related achievements within the “software” category of intangible assets. This makes it difficult to reflect the actual value and structural composition of data assets. A more scientific presentation approach would be to establish “Data Assets” as a primary line item in the financial statements, further classified into three subcategories based on usage (internal use, etc.), with detailed disclosure of recognition criteria and other information in the notes to the financial statements. Such an approach would increase corporate information transparency and help build core competitiveness and market recognition.

4.3 Institutional Coordination at the Market and Regulatory Levels

First, we recommend that the Ministry of Finance take the lead in formulating a Technical Guide for the Valuation of Data Assets. Its specific provisions should clarify models, parameter selection, and operational guidelines, while also supporting the establishment of professionally qualified third-party institutions to provide standardized valuation services.

Second, at the regulatory level, a three-stage regulatory framework of “front-end rights confirmation, mid-end valuation, and back-end disclosure” should be constructed. This is essential for enhancing the enforcement of accounting policies and the transparency of asset information. We propose that data assets be designated as a key audit focus area in annual reports. For instance, accounting firms could be required to issue a special opinion on the matter, efforts should be made to promote industry-wide standardization of note disclosure templates for listed companies, and the Ministry of Finance, in conjunction with the stock exchanges, should issue “Detailed Rules for the Disclosure of Data Asset Information” to guide the industry toward establishing disclosure conventions.

Third, we recommend that the Ministry of Finance, in collaboration with the National Data Administration, the State Taxation Administration, and other relevant departments, formulate a “Regulatory Framework for Accounting Recognition and Valuation,” incorporating the outcomes of local pilot initiatives (such as the pioneering experiences in Shanghai and Shenzhen). This would help establish an integrated institutional logic centered on “rights identification, valuation logic, and information disclosure” and contribute to building an interdepartmentally coordinated accounting policy system that is adapted to the characteristics of data as a factor of production.

5. Conclusions and Implications

5.1 Research Conclusions

Taking the on-balance-sheet recognition of data assets as the focal point, this paper investigates the accounting treatment practices and challenges of TRS, and puts forward recommendations for institutional improvement and operational optimization. We draw the following conclusions:

First, in preparing its financial statements, TRS treats certain self-developed data platforms as intangible assets, establishing uniform amortization periods and a preliminary valuation framework. Although these practices have limitations, they offer practical value for the implementation of industry norms.

Second, with respect to the recognition stage, we explore the operational aspects of judging attributes such as the “identifiability” of data. TRS has recognized some data products as intangible assets. This helps the enterprise accurately reflect the value of its core assets and provides investors with a basis for decision-making.

Third, in terms of measurement and presentation, TRS measures data assets at historical cost,

applies uniform fixed amortization periods, and does not disclose details such as cost composition in the notes to its financial statements. Nonetheless, TRS's preliminary framework has enhanced the financial representation of its data assets, placing the firm at the forefront among comparable enterprises.

Finally, we propose improvements in three directions: at the institutional level, refining accounting standards; at the enterprise practice level, improving recognition procedures; and at the regulatory level, promoting the development of valuation standards and information disclosure systems. These measures can mitigate the difficulty of "recognizing data assets on the books" and help China's accounting system adapt to the development of the digital economy.

5.2 Research Implications

5.2.1 The Refinement of Data Asset Standards Should Be Grounded in Industry Characteristics

A unified norm has yet to be established for the "front-end, mid-end, and back-end" processing chain of data assets, leaving space for the institutional development and practical exploration undertaken in this paper. Existing standards mostly require data assets to be disclosed within intangible assets or inventories. However, for enterprises in big data and artificial intelligence industries such as TRS, data assets are diverse in type and complex in usage scenarios. Some of these data assets are used internally or sold infrequently, and data assets are inherently non-rivalrous. Consequently, such data assets differ from traditional intangible assets with respect to exclusivity, making it worth considering the creation of a separate "Data Assets" line item for presentation. Moreover, given the high volatility of data asset values, different industries need to adopt different methods and standards when conducting valuations. For instance, the ways in which data assets are used and create value differ between TRS and Meituan, necessitating distinct valuation approaches.

5.2.2 The Definition and Recognition of Data Assets Should Be Based on Data Characteristics

This paper defines data assets as current economic data resources that are recorded in various forms by an enterprise, lawfully owned or controlled, formed by past transactions or events, and expected to generate future economic benefits. Considering the characteristics of data-intensive enterprises, exploitability and lawful acquisition should be emphasized. The former means that data resources must be exploited to create value; the latter stresses that the "separation of three rights" (i.e., the right to hold data resources, the right to process and use data, and the right to operate data products) as stipulated by law should be followed for proper recognition and measurement.

5.2.3 The Subsequent Measurement of Data Assets Should Adapt to Market Conditions

A key challenge in recognizing data assets on the balance sheet is accurate valuation. The subsequent measurement adopted by the case firm relies on simple amortization or impairment treatment based on the cost method, which fails to reflect the high value volatility and strong timeliness characteristic of data assets. The market approach requires an open, active market and comparable assets, while the income approach entails considerable difficulty in estimating expected returns and discount rates. Going forward, enterprises should explore subsequent measurement methods that suit their own business characteristics. If, in the short run, no comparable products or reasonable formulas for estimating expected returns can be found, amortization or impairment periods should be reasonably estimated based on the product lifecycle.

References

- [1] China Academy of Information and Communications Technology. (2024, August 30). Report. <http://www.caict.ac.cn/kxyj/qwfb/bps/202408/P020240830315324580655>.
- [2] Wang X, Yao L. Data asset disclosures tilt audit tone: evidence from china's A-share market[J]. *International Review of Financial Analysis*, 2025, 107, 104657.
- [3] Mu M, Li J, Hao J, The Incorporation of Data Assets into Financial Statements: Framework, Pathway and Practical Exploration[J]. *Procedia Computer Science*, 2025, 266: 1109-1115.
- [4] Dai Y, Cheng S, The impact of strong financial supervision on corporate data asset holdings[J]. *Finance Research Letters*, 2026, 87, 108756.
- [5] Wu Y. Theoretical and modeling research on the valuation of data assets[J]. *Frontiers in Business, Economics and Management*, 2024, 15(1): 298-305.
- [6] Qin C. Data assetization and audit fees[J]. *International Review of Financial Analysis*, 2026, 115, 105181.
- [7] Yang B, Huang D, Pan X, Cui X, Zhang H, Data asset valuation: Research and application in commercial banking[J]. *Journal of Digital Economy*, 2025, 4: 319-333.