

Market Reaction and Financial Effects of Data Assets Recognized on the Balance Sheet

Xinyue Liu

*Department of International College, Guangzhou College of Commerce, Guangzhou, China
xinyue.liu.320@outlook.com*

Abstract. In 2024, the Interim Provisions on accounting treatment of enterprise data resources were formally implemented, marking the transition of data assets from theory to practice. This paper selects three representative enterprises: Merit Interactive Co., Ltd., Sublime China Information Co., Ltd. and China Mobile Communications Corporation. Using the event research method and the financial index comparison method, this paper analyzes the market reaction and financial effect of data assets after entering the balance sheet. The findings reveal that the capital market reaction to data assets being recognized on the balance sheet differs across enterprises. Sublime China Information has received a positive market response. Merit Interactive's market response is relatively flat, and China Mobile has basically no response. The asset structure of data native enterprises has been significantly improved, and the scale of intangible assets has increased significantly, but the profitability is greatly affected by amortization and investment, and there is a time lag in value release. The visibility, credibility and property right nature of enterprises jointly determine the direction and magnitude of the market reaction. This paper provides micro-level case evidence for understanding the economic consequences of data assets entering the balance sheet.

Keywords: data assets on balance sheet, market reaction, financial results

1. Introduction

In the era of the digital economy, data has become a key factor of production. On January 1, 2024, the Interim Provisions on Accounting Treatment Related to Enterprise Data Resources issued by the Ministry of Finance were officially implemented, allowing data resources to be recognized as assets under accounting standards, which is an important institutional innovation for China's digital economy [1]. How does the capital market interpret this policy? What market reactions and financial effects follow data assets being recognized on the balance sheet? Do substantial impacts exist and differ across enterprise types? Clear case evidence remains scarce. This paper selects three case firms (Merit Interactive, Sublime China Information and China Mobile) to represent private enterprises, segmented leaders and central state-owned enterprises respectively, and analyzes their market reaction and financial effects.

Existing literature finds that the recognition of data assets on the balance sheet affects accounting information relevance [2]. Data resources can be recognized as assets only when they meet the

criteria of probable economic inflows and reliable measurement [3]. From signal transmission theory, relevant policies boost investors' expectations of future cash inflows [4]. Data asset recognition improves corporate profitability and solvency [5]. According to the performance of listed companies on the balance sheet, some studies believe that the short-term market effect brought by data assets on the balance sheet is not significant [6]. Some studies also believe that the market has responded positively to the promulgation of the new regulations on data assets entering the balance sheet [7]. Inconsistent disclosure of data resources will lead to significant negative market reactions [8]. However, the direct impact of data resources on asset structure and profitability is limited [9]. The first batch of listed enterprises is generally highly cautious, and the scale of listing is limited [10].

Existing literature mostly focuses on macro-level empirical tests or single-case analyses, and there are few comparative studies on the first batch of enterprises to implement the new regulations after landing. This paper takes the economic consequences of data assets entering the balance sheet as the main line of research, uses the event research method to test short-term market reaction, and uses the financial index comparison method to analyze the changes in enterprise financial ability. In theory, this paper enriches the case evidence of data element value transformation and signal transmission theory. In practice, the research conclusions can provide a reference for the implementation of data enterprises and the valuation judgment of investors.

2. Case introduction

2.1. Current situation of the three case companies

Merit Interactive Co., Ltd., stock code 300766. Founded in 2010, it is one of the first listed companies in China engaged in data intelligence services, and it is also one of the first private listed companies in China to achieve data assets on the balance sheet. According to the Interim Provisions on accounting treatment related to enterprise data resources, the company has formally implemented the data asset entry policy since January 1, 2024, and recognized eligible data resources as intangible assets for accounting.

Sublime China Information Co., Ltd., stock code 301299. Founded in 2004, it is a leading enterprise in the field of commodity information consulting services in China and a typical "data-driven" private enterprise. According to the regulations of CK [2023] No.11, the company has implemented the data asset entry policy since January 1, 2024, and recognized commodity price data and industry research data as intangible assets. Data assets have become an important part of the company's assets, and the amount on the balance sheet has increased rapidly.

China Mobile Communications Corporation, stock code 600941. Founded in 1997, it is a leading communication operator in China, with the largest user data resources in China, and is a benchmark enterprise for data assets in state-owned enterprises. According to the regulations of CK [2023] No.11, the company has formally implemented the data asset entry policy since January 1, 2024, and recognized user behavior data and network data as intangible assets.

2.2. Comparison of differences in data assets of three companies

According to the public data of the financial reports of listed companies, it can be seen from Figure 1 that the total amount of data assets of China Mobile is ahead of the three companies, reaching 1236 million yuan at the end of 2025. The amount of the three companies on the balance sheet shows a quarterly growth trend, indicating that the confirmation of data resources on the balance

sheet is a continuous process. In terms of proportion, data assets of Merit Interactive and Sublime China Information account for 3%–5% of total assets and significantly affect their financial structures. China Mobile's total assets exceed 2 trillion yuan, with data assets accounting for less than 0.1%, the lowest among the three. Merit Interactive is a data-native private enterprise with steadily expanding data assets highly bound to core business revenue. Sublime China Information's data assets have a moderate absolute volume but a high proportion of its intangible assets, showing a data-centric business model. China Mobile's data assets have the largest absolute amount but a very low relative share, with weak short-term financial effects and more strategic value for SOE digital reform and data element marketization.

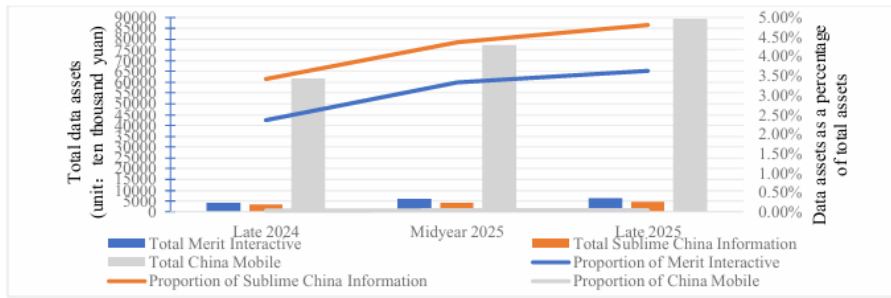


Figure 1. Comparison of three companies (picture credit: original)

3. Case analysis

3.1. Market reaction

This study adopts the event study method to examine the short-term market reaction to data assets being recognized on the balance sheet. Under the efficient market hypothesis, the impact of specific events will be quickly reflected in asset price changes, and the net effect of the event itself can be identified by calculating excess returns after stripping off the overall volatility of the market. The basic form of the market model is as follows (1):

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

Among them, R_{it} is the actual yield of individual stock i on trading day t , R_{mt} is the actual yield of the CSI 300 index on trading day t , α_i is a constant term, β_i is the regression coefficient of the corresponding stock, ε_{it} is a random disturbance term. After estimating α_i and β_i , the abnormal rate of return in the event window can be calculated, and the cumulative abnormal rate of return can be further calculated to examine the cumulative effect of multiple days in the event window.

The event day of Merit Interactive is set as the disclosure date of the first quarterly report, that is, April 26, 2024. The estimated window is 110 to 11 trading days before the event date. The event window selects 5 to 5 trading days before and after the event date. The market model estimates that $\hat{\alpha} = 0.0022$, $\hat{\beta} = 2.1846$. The event day of Sublime China Information is set to April 26, 2024, and the estimated window and event window parameters are consistent with the Merit Interactive. The market model estimates that $\hat{\alpha} = 0.0025$, $\hat{\beta} = 2.0823$. China Mobile's event day is set for April 22, 2024. The estimated window is from November 14, 2023, to April 3, 2024, totaling 100 trading

days. The event window is from April 15 to April 29, 2024, a total of 11 trading days. The market model estimates that $\hat{\alpha} = 0.0010$, $\hat{\beta} = 0.1495$.

As shown in Table 1, first, Merit Interactive has a cumulative abnormal return of -1.06% in the event window, and its overall market reaction is flat. Shortened window results show CAR (-1, +1) = -0.89%, CAR (-2, +2) = 2.05%, and CAR (0, +2) = 0.72%. Significant positive excess returns (2.90% and 2.62%) occur two trading days before the announcement due to possible information leakage or pre-reaction, while the market reaction on and after the announcement is mild. Overall, the market response is complex with no significant short-term cumulative effect. Second, Sublime China Information has a cumulative abnormal return of 16.67% with an extremely positive market reaction. All shortened window CARs are significantly positive. The event-day abnormal return reaches 16.57% and stays positive the next day, indicating strong positive investor recognition. Third, China Mobile's cumulative abnormal return is 0.07%, nearly zero. Its shortened window CARs are negative but small in absolute value, with event-day abnormal return of -0.65% and post-announcement daily AR below 1.4%. As a defensive stock, it responds weakly because data asset recognition has limited direct impact on its financial structure and low investor attention.

Table 1. Calculation results of AR and car in event windows of three companies

Merit Interactive			Sublime China Information			China Mobile		
Date	Relative day	AR	Date	Relative day	AR	Date	Relative day	AR
2024/4/24	T=-2	2.90%	2024/4/24	T=-2	3.42%	2024/4/18	T=-2	-1.02%
2024/4/25	T=-1	-1.57%	2024/4/25	T=-1	-0.82%	2024/4/19	T=-1	1.55%
2024/4/26	T=0	-0.51%	2024/4/26	T=0	16.57%	2024/4/22	T=0	-0.65%
2024/4/29	T=+1	1.19%	2024/4/29	T=+1	0.14%	2024/4/23	T=+1	-1.39%
2024/4/30	T=+2	0.04%	2024/4/30	T=+2	-3.20%	2024/4/24	T=+2	0.01%

3.2. Financial performance

As shown in Table 2, after data assets are recognized on the balance sheet, Merit Interactive's asset structure is continuously optimized. Intangible assets rise from 287 million yuan (2023) to 556 million yuan, and the asset-liability ratio drops from 18.05% to 14.61%. In 2025, its net profit attributable to the parent company is -35 million yuan with negative ROE, as data asset amortization and AI computing investment pressure short-term profits. Operating cash flow is under pressure, but receivables management and sales collection efficiency improve. The rapid growth of intangible assets supports long-term development, yet short-term profit transformation remains challenging.

Table 2. Comparison of the main financial indicators of the three companies

Financial index	Year	Merit Interactive	Sublime China Information	China Mobile
Total assets (RMB100mn)	2023	20.39	9.80	19574
	2024	18.53	9.38	20863
	2025	18.62	9.94	20929
Intangible assets (RMB100mn)	2023	2.87	0.26	590.01
	2024	4.24	0.58	597.48
	2025	5.56	0.83	574.55

Table 2. (continued)

	2023	18.05	31.28	33.04
Asset-liability ratio (%)	2024	14.72	35.22	33.20
	2025	14.61	40.82	33.20
Operating income (RMB100mn)	2023	4.30	2.84	10093
	2024	4.70	2.94	10408
	2025	5.16	3.56	10502
Net profit attributable to the parent company (RMB100mn)	2023	-0.50	0.52	1318
	2024	-0.65	0.71	1384
	2025	-0.35	0.66	1371
Return on equity (%)	2023	-3.02	7.64	10.20
	2024	-4.07	10.92	10.40
	2025	-2.23	10.77	9.90

Data asset recognition brings more positive financial effects to Sublime China Information. Its intangible assets surge from 26 million yuan to 83 million yuan, making data assets the core of the company. The asset-liability ratio climbs from 31.28% to 40.82%, and moderate financial leverage supports data business expansion. In 2024, net profit rises 36.5% year-on-year with ROE reaching 10.92%; in 2025, net profit drops 7.0% to 66 million yuan but ROE stays high at 10.77%, proving limited amortization pressure and strong data liquidity. Operating income grows from 284 million yuan to 356 million yuan, forming a positive synergy with data asset recognition. The firm's data liquidity and profit growth sustainability are favorable.

As a mega central state-owned enterprise, China Mobile sees limited direct financial effects from data asset recognition. Intangible assets are basically stable, with data assets accounting for less than 1% of total assets. The asset-liability ratio holds steady at around 33%, keeping the financial structure stable. In 2025, net profit falls slightly by 0.9% and ROE drops to 9.90% due to industry competition. Operating income rises by 4.1%, and data assets exert a long-term strategic enabling effect. The company's large scale is matched with mature operational efficiency, and data elements mainly improve digital business revenue and network optimization efficiency in the long run.

3.3. Comparative analysis

Horizontal comparison of the market response and financial performance of the three companies: Sublime China Information received the most positive market feedback. As seen in Table 3, CAR (-1, +1) was as high as 15.89%, and the abnormal yield on the day of the event was 16.57%. The Merit Interactive response was complex, with CAR (-1, +1) of -0.89%, but CAR (-2, +2) of 2.05%. China Mobile responded the most blandly, with the absolute value of CAR in each window not exceeding 2.1%. The reasons for the differences are analyzed from the following three aspects.

Table 3. Summary of the car shortening window period of three companies

Window	Merit Interactive	Sublime China Information	China Mobile
CAR (-1, +1)	-0.89%	15.89%	-0.49%
CAR (-2, +2)	2.05%	16.11%	-1.40%
CAR (0, +2)	0.72%	13.51%	-2.03%

First, differences in business models lead to heterogeneous signaling effects. Based on signaling theory, the correlation between information and investor decisions determines the intensity of market reaction. Sublime China Information's core business is commodity data information services, and data resources are its direct revenue source, so investors give significantly positive pricing. Merit Interactive is in the AI computing investment stage, and the positive signal of data assets is offset by short-term performance declines, resulting in a muted market reaction. China Mobile's data assets are derived from communication services and are not the core revenue driver, so the market reaction is weak. Second, the difference in stock risk characteristics affects the extent of market response. The capital asset pricing model indicates that high-beta stocks are naturally more sensitive to market volatility and event shocks. Merit Interactive and Sublime China Information are high-beta stocks, and the high-beta characteristics magnify their very different market reactions. Sublime China Information has a strong positive reaction, and the Merit Interactive reaction is flat. China Mobile is a low-beta defensive stock, and its stock price is less sensitive to market information and specific events. Third, differences in market expectations determine the direction of the response. The efficient market hypothesis points out that price changes depend on the gap between actual disclosure and expectations. Sublime China Information's announcement-day AR reaches 16.57%, while the cumulative CAR two days before the announcement is only 5.07%, indicating the data asset information greatly exceeded market expectations and triggered a concentrated price rise. Merit Interactive's pre-announcement cumulative CAR is 4.71% with an announcement-day AR of -0.51%, meaning market expectations were priced in ahead of the announcement. China Mobile's pre-announcement CAR is 4.79% and gradually declines after the announcement, showing the announcement content did not exceed expectations and the short-term event impact faded quickly.

4. Conclusion

Based on a comparative analysis of three enterprises with different property rights natures, this paper draws the following conclusions. First, the capital market reaction to data assets shows significant enterprise heterogeneity. Sublime China Information gains extremely positive market feedback, Merit Interactive presents a complex market reaction with significant positive excess returns before the announcement, and China Mobile has the blandest response, suggesting data asset recognition does not necessarily bring positive market reactions and its effect relies on enterprise business models, stock risk characteristics and market expectations. Second, the financial effects of data asset recognition are differentiated. Data-native enterprises see significantly improved asset structures, while China Mobile has limited structural changes due to its large scale. Third, signaling serves as the core mechanism, with enterprise visibility, credibility and property right nature determining the direction and magnitude of market reactions. Enterprises should assess their business models and data liquidity, investors should focus on data asset liquidity prospects, and regulators should refine data asset disclosure requirements.

The theoretical contribution of this paper is to adopt multi-case studies with different property rights of private enterprises, subdivision leaders, and central enterprises, which makes up for the lack of micro cases in existing studies, and enriches the case evidence of data element value transformation and signal transmission theory. The practical significance is that it provides a reference basis for the implementation of data enterprises, investor valuation judgment, and regulatory policy optimization. This study has certain limitations. The policy of recognizing data assets on the balance sheet has been implemented for a short period. Future research can test the sustainability of data asset transformation by extending the observation window.

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