

Financial Performance Analysis of State-Owned Enterprises' Reverse Mergers Based on Guangdong Hydroelectric Power Corporation's Case

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Abstract. In order to improve the competitiveness of state-owned firms, it is crucial to utilize their existing assets effectively and promote efficiency. The state promotes the restructuring and development of pertinent state-owned firms through mergers and acquisitions. This paper assesses the debt-paying ability, profitability, and expansion capabilities of Guangdong Construction Group through financial performance analysis, using the reverse takeover by Guangdong Hydropower as a case study. Dealing with the financial risks and managerial issues in the reorganization of state-owned companies to improve progress and performance. This paper suggests enhancing capital flow, advancing integration strategies post-mergers and acquisitions, clarifying the objectives of mergers and acquisitions, accelerating the optimization of management systems post-mergers and acquisitions, and developing scientifically grounded merger and acquisition plans based on real circumstances. This paper offers advice for state-owned enterprises involved in similar reverse acquisitions or mergers and acquisitions.

Keywords: Mergers and acquisitions, Reverse acquisitions, State-owned firms.

1. Introduction

The State Council released the "Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area" in 2019, highlighting the goal of creating an outstanding bay area by 2035 that is suitable for living, business, and tourism. The "14th Five-Year Plan for the Construction Industry of Guangdong Province," published by the Department of Urban and Rural Housing and Urban-Rural Construction of Guangdong Province in 2021, emphasized the importance of boosting the core competitiveness of enterprises, which encouraged state-owned enterprises to spearhead industry reforms.

Guangdong Hydropower purchased 100% of Guangdong Construction Group's shares and resumed trading in early November 2022 after completing the acquisition and restructuring. After the registration system reform was implemented, the merger and acquisition market became active, leading to major changes in the market environment. This study does a financial performance analysis to evaluate the enterprise's capacity to repay debts, profitability, operational efficiency, and growth prospects. Appropriate suggestions are given for state-owned firms involved with comparable reverse acquisitions or mergers.

2. Brief Introduction of the Case

The case analyzed in this paper involves the acquisition of an unlisted parent company by a listed subsidiary. The controlling subsidiary acquires 100% equity in the parent company while safeguarding the interests of the company and shareholders.

2.1. Company Overview

Guangdong Hydropower Co., Ltd. is a holding listed construction company of Guangdong Construction Engineering Group Holding Co., Ltd. It is the only state-owned listed construction company and national high-tech enterprise in Guangdong Province. The company was listed on the Shenzhen Stock Exchange in 2006 with the stock name "Guangdong Hydropower" and stock code 002060. The company's primary business includes construction, municipal, water conservancy, and hydropower engineering. It holds several qualifications and has over 1,000 patents. The company follows the enterprise spirit of "dedication, responsibility, endeavor, and transcendence." In the future, it will continue to promote the coordinated development of engineering construction and clean energy investment.

Guangdong Construction Engineering Group Holding Co., Ltd. is a company funded by the Guangdong Provincial Government. It is managed by the State-owned Assets Supervision and Administration Commission of Guangdong Province. The company has been ranked among the "Top 500 Enterprises in China" for 19 consecutive years and rated as the "Contractually Trustworthy Enterprise in Guangdong Province" for 27 consecutive years. In 2023, it was ranked 272nd in China's Top 500 Enterprises and has one listed company (stock code: 002060). The company's main business activities include construction and construction-related industries, clean energy investment, construction, and operation, as well as the medical and pension health industry (cultivation).

2.2. Mergers and Acquisitions Process

On March 15, 2022, YueHydro issued the "Suspension Progress Announcement on Planning Major Asset Restructuring Matters", indicating that it was planning to issue shares to purchase 100% of the equity of Guangdong Construction Engineering Group Co., Ltd. held by Guangdong Construction Engineering Group Holdings Co., LTD. In June of the same year, YueHydro announced the issuance of shares to purchase assets and raise matching funds and related transactions to obtain the approval of Guangdong SASAC and then the acquisition report. Finally, on January 10, 2023, YueHydro officially completed the acquisition by issuing shares to purchase assets and raising matching funds and completing the transfer of related transaction assets.

2.3. Mergers and Acquisitions Motivations

According to the Outline of the Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area issued by The State Council in 2019, various construction projects are proposed to be promoted. Among them, developing tourism and cultural industries requires the active participation of state-owned construction enterprises. According to the 14th Five-Year Plan of Guangdong Construction Industry issued by the Department of Urban and Rural Housing and Urban-Rural Development in 2021, the development of most construction enterprises has the problems of "scattered, small and weak", and the engineering business is mainly concentrated in the field of housing construction and municipal infrastructure construction. The industrial chain of the construction industry is fragmented and developing, which is not conducive to the integration and deployment of resources [1]. The case analyzed in this paper involves the acquisition of an unlisted parent company by a listed subsidiary. The controlling subsidiary acquires. At present, to reduce the pressure of market competition in the same industry, the subordinate business of CCG has a specific correlation with the main business of Guangdong Hydropower, and there is a phenomenon of industry competition. After the completion of M&A transactions, the same and similar companies can be vertically merged and related assets can be integrated and managed, which is conducive to enhancing their independence. The motivations of M&A come from market seeking, resource acquisition, efficiency acquisition, and strategic asset acquisition, as well as maximizing market effect by leveraging synergistic effect [2]. Guangdong Hydropower's acquisition of Guangdong Construction Engineering Group aligns with the industrial layout of state-owned enterprises to optimize and restructure, broaden financing channels, and improve profitability; the paper analyzes the acquisition of an unlisted parent company by a listed subsidiary, safeguarding the interests of the company and

shareholders, where the subsidiary acquires 100% equity in the parent company. And maximize shareholders' interests.

3. Financial Performance Analysis

3.1. Debt Paying Ability

3.1.1 Long-term solvency

As a state-owned enterprise with a large scale and wide business, Guangdong Hydropower has a strong borrowing ability. In addition, due to the government's macro-control measures, state-owned enterprises do not need to bear debt repayment obligations and have the ability to repay debt. So, in the case of poor financial condition, the enterprise can continue to increase debts to maintain business, which leads to its asset-liability ratio being high. Meanwhile, through data analysis of other soes (such as China Railway Group and China Railway Construction Corporation), it can be found that a high asset-liability ratio is a common problem for soes. As can be seen from Fig. 1, the asset-liability ratio of Guangdong Hydropower is very high (more than 80%), which means that the enterprise does not have strong long-term solvency. In January 2023, Guangdong Hydropower borrowed to complete the merger and acquisition of Guangdong Construction Engineering Group, and the Asset Liability has further increased.

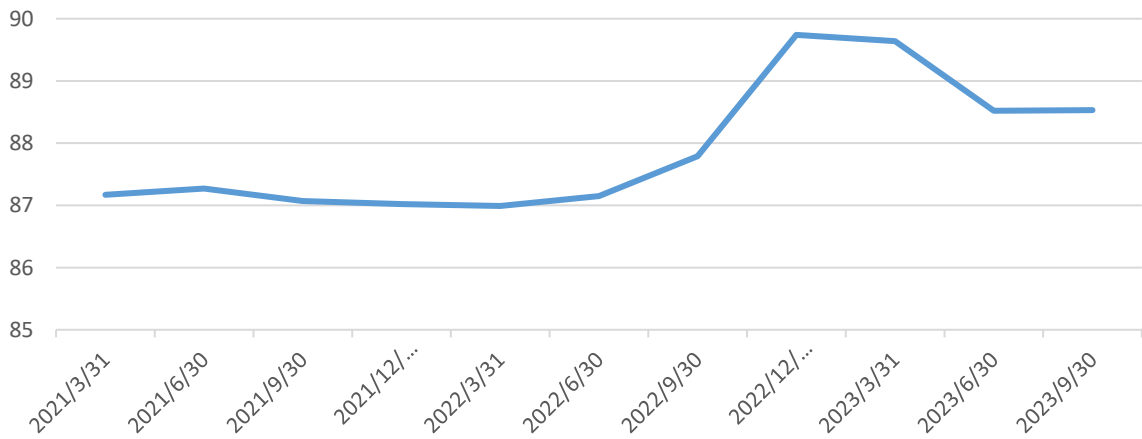


Figure 1. Asset Liability Ratio (%)

3.1.2 Short-term solvency

Current Ratio and Quick Ratio are important indicators to measure the short-term solvency of enterprises. As can be found from Fig. 2, both the current ratio and quick ratio of Guangdong Hydropower are in the range of 0.8~1, and show an extremely slow rising trend.

(1) Current ratio

According to the theory, the Current Ratio of the enterprise should not be less than 2, that is, the Current Assets should not be less than 2 times of the current liabilities so that the enterprise can have good solvency. However, according to the data in the chart, the Current Ratio of Guangdong Hydropower is significantly less than 2. At the same time, in the three years shown in the chart, the Current Ratio of Guangdong Hydropower has increased slightly, which may be due to the expansion of business after the completion of the merger and acquisition, resulting in increased asset liquidity. However, because the business scope of Guangdong Hydropower and Guangdong Construction Group is similar, this improvement is not obvious. The enterprise still lacks short-term solvency.

(2) Quick ratio

As the Inventory Ratio of Guangdong Hydropower is relatively low (for example, in 2022, the average current assets of Guangdong Hydropower are 17,280,250,219.37, the average inventory is 563,926,403.45, and the inventory proportion is less than 4%), the gap between the Quick Ratio and the Current Ratio is not large, and the trend is the same. It is generally believed that the standard value

of the Quick Ratio is 1, so from the perspective of the Quick Ratio, the short-term solvency of Guangdong Hydropower is gradually increasing.

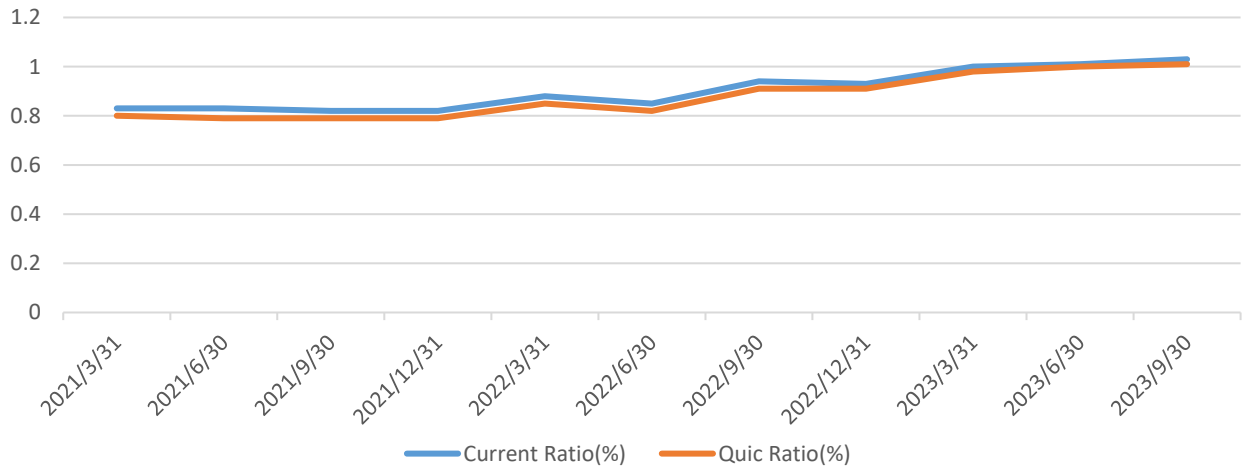


Figure 2. Short-term solvency indicators

3.2. Operation Capacity

3.2.1 Accounts Receivable Turnover Ratio

Accounts Receivable Turnover Ratio is an indicator to measure the turnover speed of accounts receivable. The higher the value, the faster the recovery speed of accounts receivable, the smaller the turnover cycle, and the smaller the risk and loss of bad debts.

As can be seen from Fig. 3, the Accounts Receivable Turnover Ratio of Guangdong Hydropower is lower than the standard value 3, indicating that the enterprise has a weak ability to recover accounts receivable, which may lead to excessive stagnation of working capital in accounts receivable. And this can affect the normal capital turnover and debt repayment ability.

3.2.2 Asset turnover ratio, fixed asset turnover ratio and total asset turnover ratio

All three are important indicators reflecting the operation capacity of enterprises. As can be seen from Fig 3, the turnover rate of current assets has the same change trend as that of fixed assets and total assets, which all reach the peak in the third quarter and decrease on both sides. All three changes are due to changes in sales revenue.

This trend stems from the nature of the hydropower industry, in which production efficiency is affected by seasonal changes. In the third quarter, the precipitation was the highest, which promoted the increase of runoff and velocity of rivers producing hydroelectric power, increasing output and sales revenue of Guangdong Hydropower, which led to the increase of Current Asset Turnover, Fixed Asset Turnover and Total Asset Turnover at the same time.

3.2.3 Inventory turnover ratio

As can be seen from Fig. 3, the Inventory Turnover Ratio of Guangdong Hydropower presented a changing trend of first rising and then decreasing before the merger, and increasing significantly after the merger. Before the merger and acquisition, Guangdong Hydropower mainly engaged in the hydropower business, which determined its low inventory and low cost of sales. Therefore, the newly added business after the merger has a great impact on the inventory turnover of the enterprise. After completing the merger and reorganization of Guangdong Construction Engineering Group, Guangdong Hydropower added construction, pension and other businesses, which greatly increased the cost of sales of the enterprise, and the ratio of inventory increase was relatively small, thus greatly increasing the Inventory Turnover Ratio of Guangdong Hydropower.

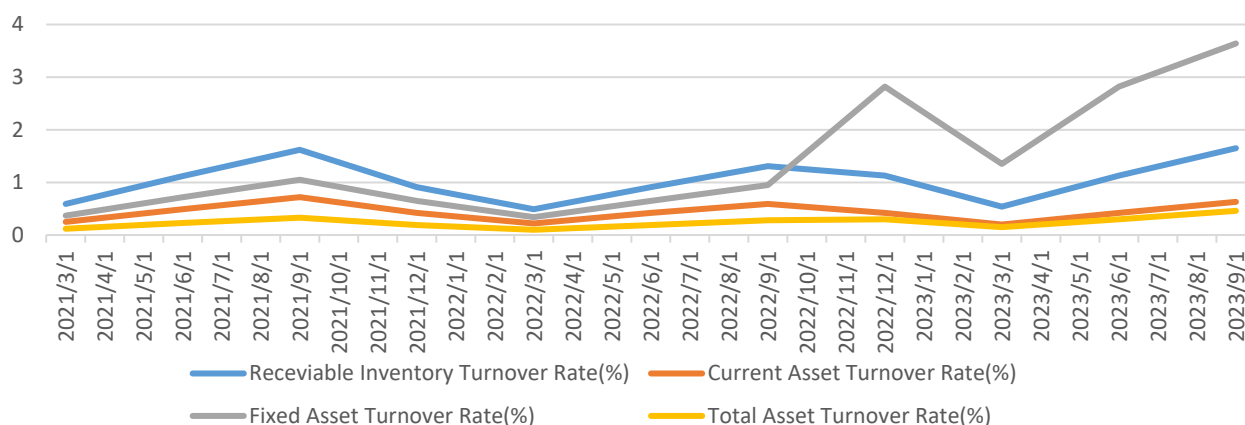


Figure 3. Inventory turnover trend chart (%)

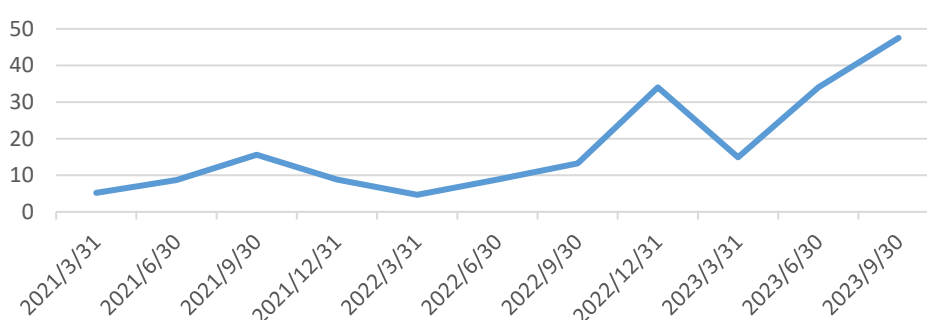


Figure 4. Inventory turnover rate (%)

3.3. Profitability

Guangdong Hydropower, a renowned listed state-owned enterprise operating in the construction industry, offers diverse services and enjoys a stable business portfolio. Upon reviewing the information on Guangdong Hydropower in recent years, it has come to our attention that the company has successfully secured numerous national large-scale projects.

The trends of the four indicators displayed in the figure are similar, indicating that the factors influencing these indicators are also similar. As shown in Fig.5, it indicates that the net profit margin of Guangdong Hydropower remains stable at around 2%, and the operating profit margin is around 3%.

It can be seen that after the completion of the acquisition, all profit indicators have slightly decreased compared with the previous level, which is due to a certain degree of growth in operating revenue after the completion of the acquisition. Still, the profit indicators have not changed much, resulting in a slight decline in the profit margin indicators in the figure above. By integrating the data in the report of Guangdong Hydropower, this paper finds that the main reason for the lower-than-expected increase in the profit index is the significant increase in non-business expenses.

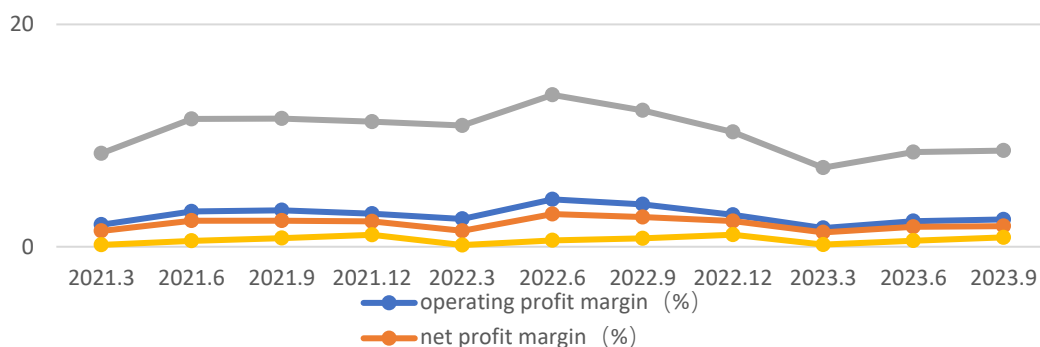


Figure 5. Profitability indicators

Table 1 compares the profitability of several state-owned enterprises in the construction engineering industry. Guangdong Hydropower's performance indicators are lower than those of China Railway Construction and China Railway, indicating that there is still room for Guangdong Hydropower to improve its profitability. However, it should be noted that China Railway Construction and China Railway are both central enterprises. At the same time, Guangdong Hydropower is a provincial enterprise, which may explain the difference in their profitability. Guangdong Hydropower has a better gross profit margin, suggesting a competitive advantage in pricing and service within the industry. The following table selects soes with similar levels in the same sector for horizontal and vertical analysis to judge their profitability.

Table 1. Comparison of operating profit, net profit margin, gross profit margin and return on total assets in the same industry

Index	corporate name	2021.3	2021.6	2021.9	2021.12	2022.3	2022.6	2022.9	2022.12	2023.3	2023.6	2023.9
Operating profit margin (%)	GHEC	1.98	3.17	3.28	2.97	2.5	4.26	3.81	2.87	1.68	2.3	2.45
	CRCC	2.95	3.57	3.29	3.41	2.88	3.57	3.36	3.41	3.09	3.62	3.41
	REC	3.74	3.59	3.58	3.62	3.83	3.75	3.6	3.74	3.95	3.78	3.62
Net profit margin (%)	GHEC	1.42	2.34	2.34	2.28	1.43	2.94	2.67	2.31	1.29	1.79	1.85
	CRCC	2.14	2.49	2.43	2.43	2.13	2.49	2.35	2.42	2.16	2.52	2.41
	REC	2.75	2.64	2.69	2.58	2.85	2.7	2.71	2.72	2.9	2.75	2.72
Gross profit margin (%)	GHEC	8.4	11.49	11.53	11.25	10.9	13.66	12.26	10.32	7.11	8.51	8.65
	CRCC	7.44	8.67	8.56	10.09	7.31	8.67	8.72	9.6	7.77	8.91	9.17
	REC	9.47	8.87	9.15	10	9.01	8.87	8.84	9.81	8.91	8.85	9.09
Return on total assets ratio (%)	GHEC	0.17	0.53	0.77	1.07	0.15	0.57	0.75	1.08	0.19	0.54	0.84
	CRCC	0.4	0.95	1.37	1.85	0.4	0.95	1.3	1.9	0.38	0.86	1.12
	REC	0.53	1.05	1.62	2.16	0.55	1.04	1.57	2.1	0.48	0.98	1.43

3.4. Development Capacity

On July 30, 2023, Guangdong Hydropower Group announced they had enough orders and complete production lines. After analyzing the company's business and related research reports, it is evident that the installed capacity of clean energy power generation of Guangdong Hydropower Group has been steadily growing. The company is expected to expand the clean energy market further in the future and lay out large energy bases in Xinjiang and other northwest regions of China. Guangdong Hydropower's investment and clean energy development align ample with the current policy expectations and present a significant potential for growth. Also, in 2023, the completion of the restructuring with China Construction Group is expected to enhance the strength of the enterprise in construction engineering.

In analyzing development capacity, we mainly use growth rates of net profit, operating profit, operating income, total assets, and net assets. In the development capacity analysis, we mainly use the growth rate of net profit, operating profit, operating income, total assets, and net assets.

The significant increase in net profit growth rate during the second quarter of 2022 may be attributed to Guangdong Hydropower's announcement on the progress of the suspension of trading regarding the planning of significant asset restructuring on March 15, after incurring losses in the first quarter (Fig. 6). This announcement has created positive expectations among investors for the company's development. Due to the market impact caused by the epidemic, the growth rate slowed down. The Guangdong Construction Engineering Group acquisition in 2023 led to a negative growth rate. However, in the third quarter, the growth rate turned positive, indicating that the joining of Guangdong Construction Engineering Group has positively impacted the future development of Guangdong Hydropower

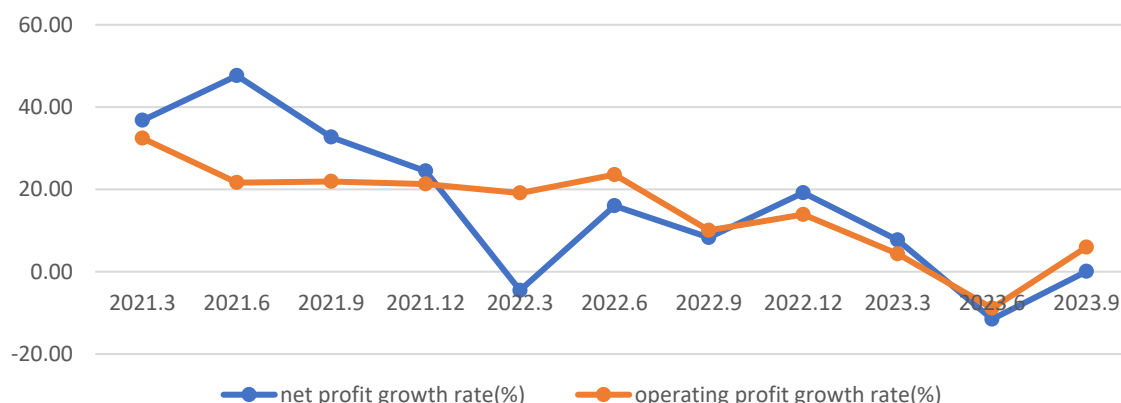


Figure 6. Profit growth indicators

Based on the figure presented, Fig.7 presents that the growth rate of operating income, total assets, and net assets all follow a similar trend. However, there is a decline in the growth rate after 2022, primarily due to the slowing down of profit growth. This decline reaches its lowest point in the first quarter of 2023. Following the acquisition of Guangdong Construction Engineering Group, there has been a positive change in the yields, leading to a better trend, and further growth is expected.

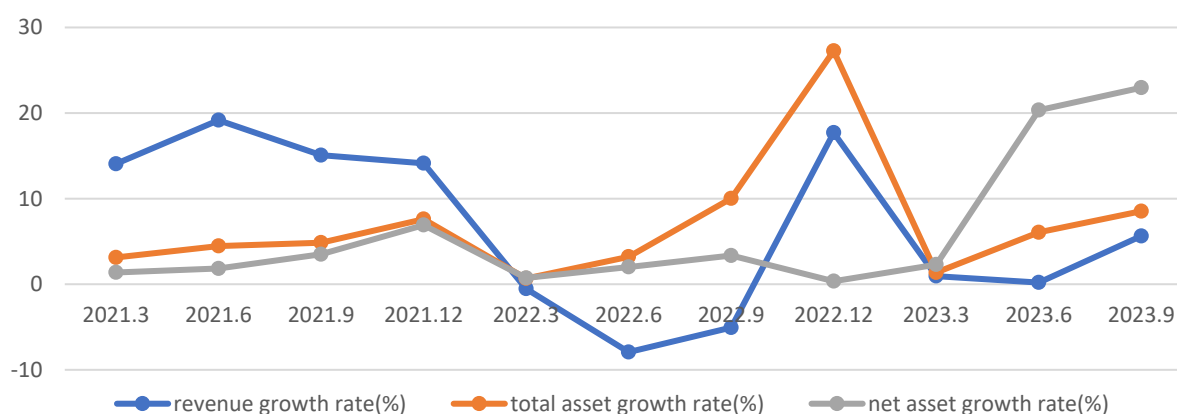


Figure 7. Asset growth indicators

4. Potential Problems and Solutions

This analysis observed notable rises in administrative spending and research and development expenses in the balance statements of Guangdong Hydropower after the acquisition was announced. Additionally, there was a notable rise in non-operating expenses following the acquisition's completion. After examining pertinent data, it was found that Guangdong Construction Group has faced several penalties, which led to significant spending on fines. Based on these findings, it is recommended that Guangdong Hydropower should optimize its management team, consolidate its management system comprehensively, and eliminate unnecessary workers. To effectively address non-compliant practices inside the enterprise's subordinate projects, it is necessary to increase monitoring and inspection efforts simultaneously [3].

Financial hazards may arise from capital inflows, necessitating the prevention of such risks for optimal financial performance [4]. This is crucial for following national strategies, protecting public interests, and maintaining and enhancing the value of state-owned assets. It is advisable to enhance the cash flow management system by cutting down on unneeded expenses. Utilize daily operational management, expected returns, and investments in new projects as entry points for cash flow management to boost management efficiency through forecasting and planning. Secondly, it is necessary to enhance the management of accounts receivable and build a robust mechanism for capital recovery. Improving the comparability of financial information by using standardized

accounting standards allows investors and shareholders to better compare assets and liabilities in business mergers.

Furthermore, it is important to prioritize debt management and control. Debt reduction is now a crucial part of deleveraging procedures in state-owned firms and has proven to be an efficient way to lessen financial pressures. The finance department should create a comprehensive debt schedule after each quarter, including details like business unit names, balances, and aging, to provide an accurate representation of the company's creditor-debtor status. A timely study of the debt schedule is necessary to detect potential debt risks, evaluate if the company's debt repayment ability aligns with the net cash flow from operating operations, and report the analysis findings to management. The management should develop practical risk prevention and control methods to decrease the chances of potential dangers or lessen the negative impact [5].

The diversity of other factors and corporate M&A activities can affect the performance and breakthroughs of post-merger integration. Not all companies can achieve performance improvement and breakthroughs after M&A restructuring. It is necessary for companies to actively promote post-merger integration strategies, clarify merger objectives, accelerate the optimization and improvement of post-merger management systems, and develop scientific M&A plans according to actual conditions to maximize the effectiveness of mergers and acquisitions [6]. However, differences in corporate operating efficiency, utilization of tax-saving facilities and changes in the amount of debt interest expenses that companies must pay due to M&A can have a positive impact on company performance [7]. Accounting treatment concerns in typical commercial mergers and reverse acquisitions are intricate and the computation methodologies for merger expenses vary among organizations [8]. State-owned companies should prioritize prudent fund utilization, mitigate financial risks in fund operations, strengthen risk management awareness, enhance fund turnover speed and efficiency, rejuvenate current assets, and boost operational efficiency [9]. An excellent corporate image can establish a higher industry standard, boost its growth, and enhance the efficiency of restructuring [10].

5. Conclusion

As the Chinese financial market expands and evolves, state-owned firms will have increased flexibility in their development strategies, leading to new problems and opportunities in the restructuring of these enterprises. State-owned construction businesses, such as Guangdong Hydroelectric Power, are characterized by high leverage and low turnover rates. Policies have a significant impact on their development. They need to closely monitor their debt condition throughout daily operations and prioritize the growth of their independence. Enterprises have flexibility in accounting confirmation and measurement due to variations in legal and accounting contexts.

State-owned firms should lead by experience in increasing research and development investment and promoting the growth of green industries, particularly clean energy, to align with the future trends of scientific and technical innovation and green development. They perform an essential role in the economy of China. An enterprise's risk level is intimately tied to its outward image.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] 14th Five-Year Plan for Construction Industry of Guangdong Province (2021-12) Department of Housing and Urban-Rural Development of Guangdong Province.
- [2] Outline of Development Plan for Guangdong-Hong Kong-Macao Greater Bay Area (2019-2-19).
- [3] Wang Yin. Analysis and Prevention of Financial Risks of Mergers and Acquisitions of State-owned Listed Enterprises [J]. Public Investment Guide, 2023, (23): 38-40.

- [4] Accounting Principles Board. Statement of Financial Accounting Standards No. 141: Business Combinations [M]. Financial Accounting Standards Board, 2007.
- [5] Yuan Meng. Research on corporate financial risk Management from the perspective of capital chain [J]. Public Investment Guide, 2023, (23): 95-97.
- [6] Meiryani Meiryani, Dezie Leonarda Warganegara, Wendy Endrianto, Erna Bernadetta Sitanggang, and Christian Natanel Widjojo. 2021. The Effect of Mergers and Acquisitions on Company Financial Performance. In 2021 5th International Conference on Business and Information Management (ICBIM 2021). Association for Computing Machinery, New York, NY, USA, 93–100.
- [7] Accounting for mergers and reverse mergers: An instructional assignment using SEC Form 10-K and S-4 disclosures, Journal of Accounting Education, Volume 29, Issues 2–3, 2011, Michael Schoderbek.
- [8] Chandrasekhar Krishnamurti, Syed Shams, Domenico Pensiero, Eswaran Velayutham. Socially responsible firms and mergers and acquisitions performance: Australian evidence [J]. Pacific-Basin Finance Journal, 2019, 57 (C).
- [9] Chi Jui Huang, Wen Chyan Ke, Rayleigh Ping-Ying Chiang, Yu Cian Jhong. Which of environmental, social, and governance pillars can improve merger and acquisition performance [J]. Journal of Cleaner Production, 18 February 2023, Volume 398, 136475.
- [10] Rui Hou, Zhi Luo, Mingbao Cheng, Yu-xiao Zhu, Jia-wen Wu. Hybrid investment motivations lead to heavy tails in M&A dynamics: Empirical evidence from China's stock market [J]. Physica A: Statistical Mechanics and its Applications, 2019, 528.