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Financial Performance and Volatility Analysis of Zijin Mining Based on EVA Modeling

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ABSTRACT

Against the background of increasingly fierce competition in China's mining industry, enterprises have put forward higher requirements for the accuracy and authenticity of financial performance evaluation. Based on the economic value added (EVA) model, this paper selects the financial data of Zijin Mining from 2019 to 2023 as a research sample, systematically evaluates the financial performance of the enterprise, and deeply analyzes the causes of financial performance fluctuations. The results of the study show that Zijin Mining's EVA index shows significant volatility during the period, which is mainly affected by factors such as market environment, resource management and strategic investment. For this reason, this paper proposes an improvement strategy for Zijin Mining's financial performance and value creation ability. This study provides a scientific financial performance evaluation method for Zijin Mining, and at the same time provides an important reference for other mining enterprises to realize sustainable development in the competitive market.

KEYWORDS

Economic value added (EVA); Financial performance evaluation; Value creation; Zijin mining

1. INTRODUCTION

As a strategic pillar industry for national economic development, the mining industry directly affects people's well-being and homeland security. With the intensification of competition in the industry, there is an increasing demand for truthfulness and accuracy in financial performance evaluation, and reasonable assessment of enterprise value has become the focus of attention of all parties. Mining enterprises have a large demand for upfront capital and face the risk of technological bottlenecks due to their focus on project development and core technologies. In this context, economic value added (EVA) provides an effective method to comprehensively assess financial performance, which helps to accurately reflect the value creation ability and financial status of mining enterprises.

Although scholars in China started late in the field of EVA research, its research fever continues to climb and has achieved remarkable results. Gu Qi et al. (2000)[1] (2000) [1] suggested that although Stern & Steward's accounting adjustments are reasonable and EVA is close to the true value of the enterprise, it is difficult to avoid the impact of systematic bias completely. Wang, Xigang et al.[2] A study of 402 listed companies shows that EVA can better reflect changes in company value than traditional accounting indicators, but it needs to be evaluated in combination with non-financial information. Sun Junqi et al. (2014)[3] 's study found that EVA significantly promotes the R&D investment of centralized enterprises, and the effect is more obvious when the market competition is high. Lv Yongjian (2017)[4] Taking China Petroleum and Chemical Industry Group as an example, analyzed the role of EVA in practical application to enhance the independent innovation ability of enterprises. Zhang Jianbin (2020)[5] pointed out that EVA should be combined with other financial performance evaluation methods to ensure the sustainable development of state-owned enterprises.

Yang Ping (2021)[6] Through the study of Renhe Pharmaceuticals, it was found that EVA can be a useful supplement to traditional performance evaluation. Since 2010, EVA has been introduced into the appraisal system of centralized enterprises and has been proved to be effective in promoting corporate innovation and management improvement in practice, with more comprehensive and precise assessment of corporate value creation.

With the deepening of research, there has been a gradual increase in the number of comparative studies between EVA and traditional financial performance evaluation methods by foreign scholars.SalagaJakub (2015)[7] believes that EVA has superiority by considering opportunity cost and transforming traditional financial indicators into EVA structure through relevant adjustments.A. Bluszcz (2015)[8] Empirical studies have shown that EVA can better reflect stock appreciation and provide guidance for business decisions.Nufazil Altaf (2016)[9] 's study showed that EVA adequately reflects the increase in firm value.Ibrahim Hafid (2018)[10] stated that EVA helps firms to target their investments towards high return projects to enhance earnings and maximize value.Piriya Muraleetharan (2017)[11] By studying the Sri Lankan banking industry, it was found that EVA and financial performance together determine the performance of the banking industry and management needs to focus on EVA to improve financial performance.Geng Songtao (2021)[12] Analyzing the financial performance of listed tourism companies in China, he found that lower EVA is the main reason for poor operating performance, and different types of tourism companies need to take differentiated measures to improve financial performance. In recent years, researchers have gradually recognized that combining EVA with other financial performance evaluation methods to establish a multidimensional financial performance evaluation system is an important way to enhance the long-term value of enterprises.

Through organizing and reading relevant studies at home and abroad, it is found that the current foreign research on financial performance evaluation and EVA has been relatively perfect. However, the existing research mainly focuses on centralized enterprises, pharmaceuticals, automobiles and other industries, and the case studies on the differences in the application of EVA in the mining industry, especially in Chinese mining enterprises, are still relatively limited. Therefore, this paper analyzes the financial data of Zijin Mining from 2019 to 2023 based on the financial performance evaluation method of EVA to assess its financial performance and volatility. This study not only helps to deepen the understanding of financial performance evaluation in the mining industry, but also provides useful references for other companies' value creation in the midst of fierce competition. Specifically, this paper intends to address the following key questions:(1) What are the trends and characteristics of Zijin Mining's financial performance during the period from 2019 to 2023? (2) What are the main factors contributing to these financial performance fluctuations? (3) Based on the results of EVA analysis, how to propose effective financial performance improvement strategies for mining companies?

2. EVALUATION OF ZIJIN MINING'S FINANCIAL PERFORMANCE

2.1. Company Profile

Zijin Mining Group Company Limited (hereinafter referred to as "Zijin Mining") is a large-scale multinational mining group engaged in the exploration and development of copper, gold, zinc, lithium, silver, molybdenum and other metal mineral resources, as well as engineering design and technology application research on a global scale. Zijin Mining is ranked 267th among Forbes Global Listed Companies in 2024, and among them, it is ranked 5th among global metal mining companies and 1st among global gold companies; it is ranked 364th among Fortune Global 500 and 91st among Fortune China 500.

Zijin Mining has formed a unique concept of innovative development in the course of development, and has the advantage of independent technological innovation, with core technologies in geological

exploration, hydrometallurgy, comprehensive recycling and utilization of low-grade hard-to-treat resources, and large-scale engineering development, ranking the leading position in the industry. Meanwhile, Zijin Mining adheres to the development concept of developing the mining industry for the benefit of the society, and continues to create economic and social value for the benefit of all parties, including employees, customers and local residents. To date, Zijin Mining has become a leader in the mining industry, not only in terms of mineral resource reserves and technology, but also in terms of profit potential.

2.2. Evaluation of Zijin Mining's Financial Performance

Before calculating the economic value added (EVA) of Zijin Mining, this paper selected the financial reporting data for the period from 2019 to 2023 to provide a comprehensive evaluation of the company's performance level in terms of the three dimensions of management synergy, innovation drive, and financial integration.

As can be seen from Table 1, Zijin Mining has achieved significant growth in its business during the period from 2019 to 2023, with the expansion of its overseas business and the increase in the prices of gold, copper and other base metals brought about by the recovery of the global economy, and the cumulative increase in operating income has reached a two-fold increase, and it has exceeded the two hundred billion yuan mark in 2021, with a growth rate of 31.31%. However, since 2021, the company's operating cost ratio has always remained at around 90%, and the average annual growth rate is between 10% and 25%. This is mainly due to the fact that the company's cost management needs to be improved as well as the increase in raw material prices due to the epidemic, thus compressing the net profit margin. In the face of increasingly fierce market competition, Zijin Mining needs to further improve its cost management capabilities and maintain its supply chain advantage to meet the challenges of market changes.

Table 1. Zijin Mining Key Financials 2019-2023 (in billions of dollars)

particular year	2023	2022	2021	2020	2019
revenues	2934.03	2703.29	2252.02	1715.01	1360.98
business cost	2649.90	2420.73	2017.99	1602.10	1286.64
net profit	265.40	247.67	196.00	84.58	50.61
Total total assets	3430.06	3060.44	2085.95	1823.13	1238.31

Source: Cathay Pacific database

In the study, drawing on Xia Lei Xiang (2021)[13] 's approach to analyze the financial performance of Zijin Mining from the following three dimensions. First, the management synergy dimension is evaluated through the indicator of total asset turnover ratio, which reflects the speed of the enterprise's capital turnover, and thus the level of the enterprise's operating capacity. Second, the innovation-driven dimension adopts the R&D expense ratio as an evaluation indicator, which can reveal the degree of emphasis on R&D and the R&D capability of the enterprise. Finally, the financial integration dimension analyzes the quick ratio to assess the short-term solvency of the enterprise.

Table 2. Zijin Mining Financial Indicators 2019-2023 (in billions of dollars)

particular year	2023	2022	2021	2020	2019
Total asset turnover (times)	0.90	1.05	1.15	1.12	1.15
R&D expense ratio	0.53	0.47	0.36	0.35	0.26
quick ratio	0.57	0.72	0.55	0.45	0.41

As shown in Table 2, although the total assets of Zijin Mining have increased dramatically along with the overseas expansion in recent years, the total asset turnover ratio can remain stable for a long time,

and it is concentrated in the range of 0.9-1.2, which indicates that Zijin Mining is able to integrate the resources effectively, mobilize the enthusiasm of all the main bodies, and improve the efficiency of resource utilization while acquiring a large number of mines in foreign countries, so as to ensure the stable growth of revenues, and the total asset turnover ratio can also be maintained in a reasonable range. The total asset turnover ratio can also be maintained in a reasonable range.

On the innovation-driven dimension, the trend of the R&D expense ratio shows that Zijin Mining's focus on R&D investment has increased every year during the sample period. By 2023, the R&D expense ratio is already twice as much as that of 2019, especially in 2021, the growth of R&D expense ratio reaches 38.23%. This indicates that the company's investment in R&D shows a continuous growth trend. In addition, Zijin Mining's R&D expense growth rate has remained above 0.1 over the past five years, further validating the company's proactive and sustained investment in R&D.

However, Zijin Mining's quick ratio has remained at 0.4 to 0.5, lower than the industry average of 0.75[14]. This phenomenon is closely related to the company's development mode. In recent years, Zijin Mining has accelerated its overseas layout and utilized a large amount of funds for the acquisition of mining assets, which has led to the compression of the holdings of current and quick assets, thus affecting the company's quick ratio. While this financial consolidation strategy has put some pressure on short-term liquidity, it also shows the company's strategic intent in long-term asset allocation and global expansion.

By analyzing these key financial indicators, we can see Zijin Mining's comprehensive performance in management synergy, innovation drive and financial integration. These indicators not only reflect the company's robustness and adaptability in the face of market challenges, but also provide an important financial basis for its future development.

3. MEASUREMENT OF ZIJIN MINING'S EVA

3.1. Overview of EVA Analysis and Adjustments

Economic Value Added (EVA) provides an effective tool for in-depth analysis of corporate performance by deducting the weighted average cost of capital from a company's after-tax operating profit. Unlike traditional financial indicators, EVA capitalizes internal retained capital and investment expenditures, which is particularly suitable for capital-intensive enterprises like Zijin Mining and has a significant incentive effect.EVA is able to more truly reflect the operating conditions and financial performance of enterprises, and has become a key indicator for assessing the value of an enterprise, which compensates for the limitations that may exist in the assessment of the performance of traditional financial indicators and provides a more comprehensive and accurate basis for the assessment of the value of the enterprise. EVA provides a more comprehensive and accurate basis for value assessment[15] It provides a more comprehensive and accurate basis for value assessment [15].

Specifically, EVA is the difference between a firm's net operating profit after tax and its total capitalization multiplied by the weighted average cost of capital ratio. When EVA is positive, it indicates that the enterprise's earnings exceed its cost of capital, thus creating economic value for shareholders; if EVA is negative, it indicates that the enterprise's earnings fail to cover the cost of capital, resulting in a decrease in shareholder value. Due to the limitations of traditional accounting methods in the calculation of profits, appropriate adjustments to accounting profits are required in the calculation of EVA, including corrections to items such as interest expense, impairment provisions and R&D expenditures, in order to more accurately reflect the actual financial position of the enterprise.

Further analyzing, the net assets EVA ratio is the ratio of EVA to average net assets, which reflects the return on shareholders' investment and is positively correlated with the return on shareholders' investment, which enables us to look at the value growth of the company from the shareholders'

perspective. The sales EVA ratio is the ratio of EVA to sales revenue, and a higher sales EVA ratio indicates that a company is able to generate more economic value-added when generating sales revenue, thus more effectively improving the overall financial performance of the company[16].

Through the use of EVA and its related indicators, this paper not only provides a more scientific analytical framework in the assessment of financial performance, but also provides a more accurate and powerful reference basis for corporate management and investors in the decision-making process.

Since Zijin Mining is a state-owned enterprise, this paper refers to the SASAC's appraisal methods for the heads of centralized enterprises when calculating EVA[17].

The specific formula is:

(1) EVA = Net operating profit after tax - WACC * Total invested capital

(2) EVA ratio of net assets = EVA/average net assets

3.1.1 Total invested capital

The formula for calculating total invested capital is: Total invested capital = Owners' equity + Liabilities - Non-interest-bearing current liabilities - Net construction in progress.

Based on the actual operation of Zijin Mining, this paper adjusts the debt capital, especially deducting the interest-free current liabilities. Zijin Mining's construction in progress takes up relatively more capital, which has a significant impact on the EVA value. However, since the construction in progress does not directly bring operating income in the short term, it should be deducted from the capital when calculating the total invested capital in order to more realistically reflect the actual operating conditions of the enterprise. The calculation of non-interest-bearing current liabilities includes items such as notes receivable, taxes payable and accounts payable, and deducts special payables as part of non-interest-bearing current liabilities. This adjustment helps to reflect more accurately the capital structure and financial position of the enterprise, thus improving the precision of EVA calculation.

By analyzing some of Zijin Mining's 2019-2023 financial data, this paper calculates the company's total capital (see Table 3). This calculation not only lays a solid foundation for a more accurate assessment of Zijin Mining's financial performance, but also ensures that the capital data used in the EVA model accurately reflects the company's actual capital utilization, thus providing the company's management and stakeholders with more informative financial analysis results.

Table 3. Zijin Mining's total invested capital, 2019-2023 (in billions of dollars)

vintages	2023	2022	2021	2020	2019
owners' equity	1383.63	1243.55	928.97	745.96	570.70
be in debt	2046.43	1815.89	1156.98	1077.27	667.51
Non-interest-bearing current liabilities	372.12	319.06	217.74	172.41	124.67
Net construction in progress	359.27	218.67	185.48	152.36	58.77
Total invested capital	2698.67	2521.72	1682.72	1498.47	1054.77

3.1.2. Net profit after tax on gross invested capital

The formula for calculating net profit after tax is: net profit after tax = net profit + (interest expense - non-operating income) × (1 - corporate income tax rate). In this article, based on the data of Zijin Mining's annual reports from 2017 to 2021, the adjusted net operating profit after tax is calculated by deducting interest expense, non-operating income, and deducting income tax accordingly. In addition, non-recurring gains made by enterprises through the sale of assets are required to be fully deducted when calculating net operating profit after tax to ensure that the financial data more accurately reflect the core operating results of the enterprises. The adjusted net operating profit after tax calculation is shown in Table 4.

Table 4. Zijin Mining Net Profit After Tax, 2019-2023 (in billions of yuan)

vintages	2023	2022	2021	2020	2019
net profit	265.4	248.67	197.00	83.58	50.61
interest expense	41.00	37.00	24.04	23.09	20.48
non-operating income	1.20	1.08	1.78	1.39	0.50
Net profit after tax	295.25	275.61	213.69	99.86	65.60

3.2. EVA Indicators

According to the SASAC version of the WACC data provided by the Cathay Pacific database, the WACC rates for 2019 to 2023 are all 5.5%. Therefore, 5.5% is uniformly adopted as the WACC rate in the EVA calculation process in this paper to ensure the accuracy and consistency of the calculation results. The specific EVA and net asset EVA rate calculation results are detailed in Table 5.

Table 5. Zijin Mining EVA and Net Assets EVA Ratio 2019-2023 (in billions)

vintages	2023	2022	2021	2020	2019
Total invested capital	2698.67	2521.72	1682.72	1498.47	1054.77
Net profit after tax	295.25	275.61	213.69	99.86	65.6
WACC	5.5%	5.5%	5.5%	5.5%	5.5%
EVA	120.93	158.97	125.19	30.74	10.15
Net assets EVA ratio	9.20%	14.63%	14.95%	4.65%	1.94%
Sales EVA ratio	4.12%	5.88%	4.56%	1.79%	0.75%

Data source: Zijin Mining annual report released data collated from

A longitudinal comparison of Zijin Mining's EVA economic value added and EVA return on net assets reveals that EVA grows more slowly during the 2019-2020 period. This phenomenon is mainly attributed to Zijin Mining's large-scale overseas mineral resource mergers and acquisitions during this period, and these mergers and acquisitions have required the company to make huge up-front investments, leading to a rapid expansion of debt size and a significant increase in gearing. At the same time, the cyclical nature of mine development also implies a time lag in earnings. However, from 2021 to 2023, EVA showed a significant improvement, especially after the release of the financial report in 2021, EVA increased significantly by $9.457 billion compared to the previous year, and reached a record high of $15.896 billion in 2022.

Analyzed from the perspective of net asset EVA rate, the EVA yield is relatively low during 2019-2020 due to the need for significant upfront investment. However, as the enterprise gradually recovers its investment and sends positive market signals through its financial reports and related information, the EVA return on net assets starts to rise continuously from 2021 onwards. This indicates that Zijin Mining's investment strategy is gradually entering the payback period, and the company's financial health and value-creation ability have improved significantly.

Analyzing from the perspective of sales EVA rate, the trend of sales EVA rate is basically in line with the EVA value and net assets EVA rate.During 2019-2020, as most of the overseas projects owned by the enterprise are still in the stage of investment and development, the enterprise will receive less sales revenue. As project development matures, the enterprise gradually recovers its investment making sales revenue increase year by year, and since 2021, Zijin Mining's sales EVA rate has also remained stable at over 4% and reached a peak of 5.88% in 2022, which is seven times more than that in 2019.

3.3. Comparative Analysis of Zijin Mining EVA and Traditional Financial Performance Evaluation Indicators

This paper analyzes the financial performance of Zijin Mining by applying the EVA financial performance evaluation method and compares it with the results obtained from the traditional financial performance evaluation method. It is found that Zijin Mining's different financial evaluation indicators show a clear upward or downward trend during the period from 2019 to 2023, and some of the indicators have a high degree of volatility, which results in their reflection of the company's financial situation being less than comprehensive and accurate. In view of this, this paper further selects Zijin Mining's traditional accounting indicators - net profit and growth rate - for in-depth study, with a view to obtaining a more comprehensive and accurate evaluation of financial performance. This analytical approach, which integrates EVA and traditional financial indicators, can reveal a more comprehensive picture of Zijin Mining's financial health and its performance in different economic environments.

3.3.1. EVA and Net Profit

Comparison of net profit and EVA, net profit growth rate and EVA growth rate of Zijin Mining from 2019-2023 is shown in Table 6:

Table 6. Comparison of EVA and Net Income and its Growth Rate of Zijin Mining Industry 2019 - 2023 (in billions of yuan)

particular year	2023	2022	2021	2020	2019
Net profit after tax	295.25	275.61	213.69	99.86	65.6
Net profit after tax growth rate	7.13%	28.98%	113.99%	52.23%	8.08%
EVA	120.93	158.97	125.19	30.74	10.15
EVA growth rate	-23.93%	26.87%	307.25%	202.86%	19.56%

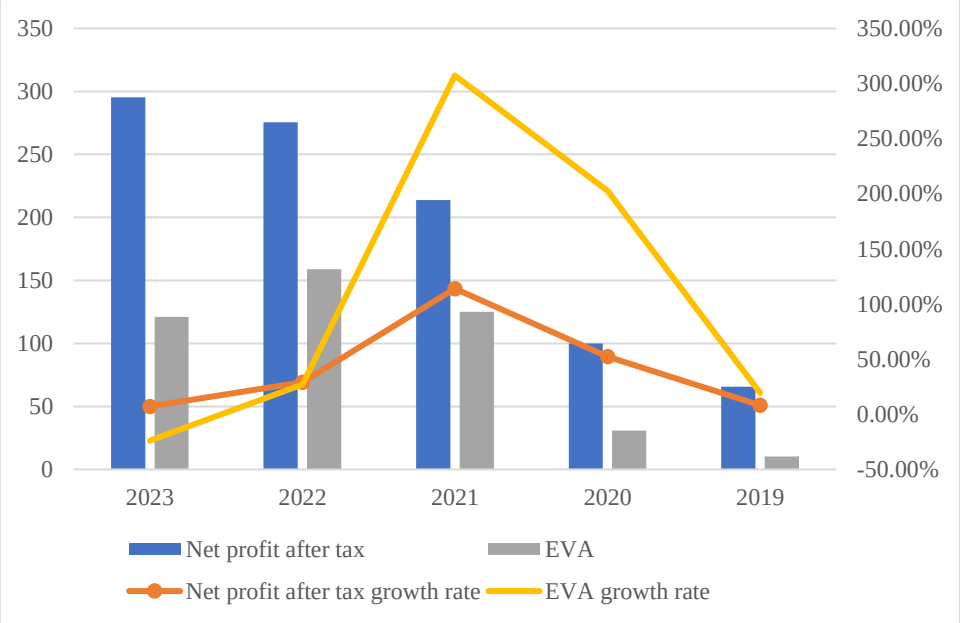

Figure 1. EVA vs. net profit after tax and its growth rate

As shown in Table 6 and Figure 1, Zijin Mining's EVA values are significantly lower than its net profit after tax, with the gap being particularly pronounced in 2023. This phenomenon is mainly due to the fact that EVA fully takes into account the cost of equity capital and debt capital, and thus is numerically lower than traditional net profit after tax in general. In terms of trends, Zijin Mining's net profit after tax shows year-on-year growth between 2019 and 2023, although the growth rate slows

down in 2023. In contrast, the EVA value has also increased year-on-year during the same period, but declined in 2023. This indicates that the growth rate of EVA is not in line with the growth rate of net profit after tax, despite the fact that the company maintains profitability in its operations, reflecting the fact that EVA excludes the impact of non-recurring gains and losses and provisions, and provides a more realistic measure of the company's ability to create economic value.

It is worth noting that from 2020 onwards, Zijin Mining's EVA growth rate gradually exceeded the growth rate of net profit after tax, indicating that the business expansion strategy rationalized by the enterprise in recent years has achieved significant results.The trend between EVA value and net profit indicates that profitability is always the core concern, regardless of the method of financial performance appraisal adopted. However, when firms face losses or insufficient profit growth, operating profits are insufficient to cover the cost of equity capital, which will further inhibit the growth of economic value added. In contrast, the EVA value shows a higher sensitivity to changes in the operating performance of enterprises, and the adoption of the EVA financial evaluation method is not only more reflective of the true profitability of enterprises, but also more likely to attract the attention and attention of management and investors at large.

3.3.2. EVA ratio of net assets and return on net assets

Table 7. Zijin Mining Net Asset EVA Ratio vs. Return on Net Assets (in %)

vintages	2023	2022	2021	2020	2019
return on net assets	21.43	25.29	23.97	12.19	11.38
Net assets EVA ratio	9.20	14.63	14.95	4.65	1.94

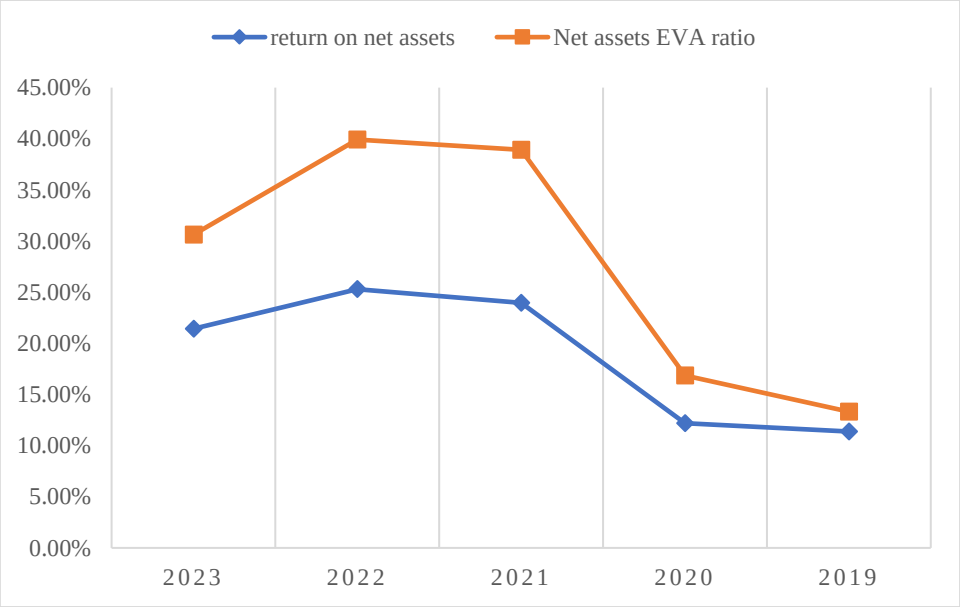

Figure 2. Zijin Mining's Return on Net Assets vs.

Both net asset EVA rate and return on net assets are important indicators of a company's profitability, and the magnitude of their values is usually positively correlated with the level of corporate earnings. As seen in Figure 2, during the period from 2019 to 2023, Zijin Mining's net asset EVA ratio and return on net assets are consistent in their overall trends, but the net asset EVA ratio is always higher than the return on net assets, especially during the period from 2021 to 2023.In 2021, Zijin Mining's net asset EVA ratio increased 211.62% year-on-year while the same period's The year-on-year growth in NAV is significantly lower than this value. This difference is mainly attributable to the company's increased investment in research and development costs.In 2019 and before, the company spent less on research and development in terms of technological updates; however, since 2019, Zijin Mining

has significantly increased its investment in research and development, with its research and development costs in FY2020 increasing by 106,173,100 RMB compared to the previous year. The increase in this part of the cost, although it has an impact on net profit in the short term, can provide important support for the sustainable development of the enterprise in the long term.

EVA recognizes the actual profit value of an enterprise through more stringent adjustment items, which tend to differ significantly from traditional financial evaluation indicators. This suggests that the EVA financial performance evaluation method pays more attention to the production and operation process of the enterprise when analyzing profitability indicators, encourages innovation and research and development, and emphasizes the long-term development potential of the enterprise. In contrast, EVA takes a cautious avoidance of non-recurring gains and losses generated by the actual operators of the enterprise through short-term speculative investment behavior. Therefore, EVA can not only reflect the real profitability of an enterprise more comprehensively, but also effectively avoid the short-term fluctuations and risks that may be ignored by traditional financial indicators, and better serve the strategic management and long-term planning of an enterprise.

3.3.3. Sales EVA Ratio and Net Sales Margin

Table 8. Zijin Mining Net Asset Sales EVA Ratio and Net Sales Margin Ratio (in %)

particular year	2023	2022	2021	2020	2019
Sales EVA ratio	4.12	5.88	4.56	1.79	0.75
Net sales margin	9.05	9.16	8.71	4.93	3.72

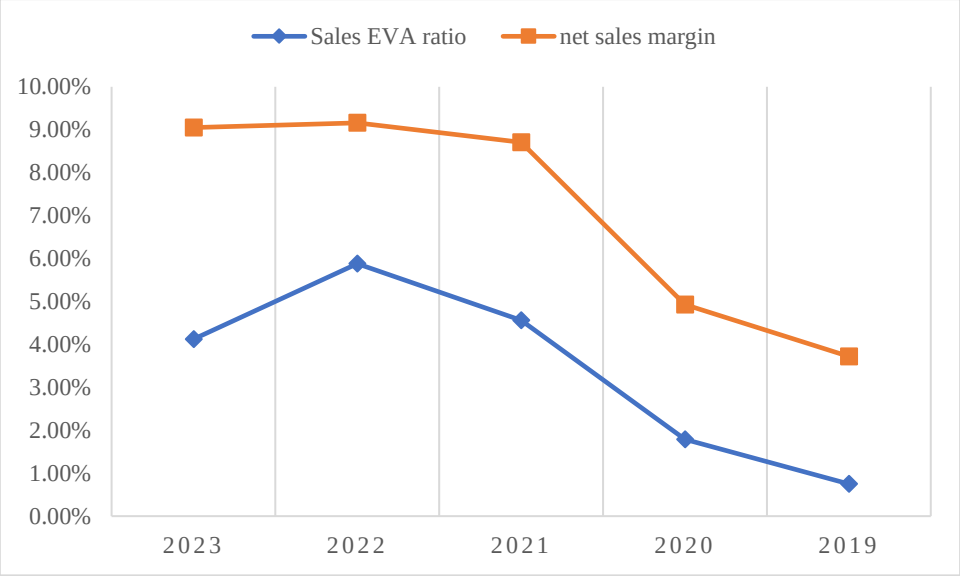

Figure 3. Zijin Mining Net Asset Sales EVA Ratio and Net Sales Margin Ratio

As can be seen from Table 8 and Figure 3, Zijin Mining's net profit from sales is positive for all of the five-year period from 2019-2023, but it is relatively flat and has a relatively wide range of changes compared to the EVA rate from sales. The reason for this is that the yet-to-be-deducted equity capital of the company whitewashes the reported data. After net profit minus equity capital, the sales EVA ratio can more realistically reflect the change in the true value of the enterprise. Especially in 2021, the net sales rate of the year is higher than the net sales rate of 3.91%, and it can be found through the annual report that the net profit of 2021 is more than double than that of 2022, but the economic value added it generates is relatively small, elaborating on the fact that the EVA-related indicators are responsive to the financial performance of the enterprise over a period of time, which is more conservative and less easy to be manipulated compared with the traditional indicators.

3.4. Conclusion

In this chapter, the weighted average cost of capital was calculated by adjusting the net profit after tax and total capital of Zijin Mining, which led to the EVA value and related indicators. By comparing EVA with traditional financial indicators, significant differences are revealed. The study shows that EVA is a more accurate reflection of corporate financial performance and its volatility in China's mining industry.From 2019 to 2023, Zijin Mining's financial performance ranged from a steady increase to an accelerated improvement, especially after 2021, when EVA increased significantly, reflecting its ability to improve long-term financial performance through overseas M&A and R&D investment, despite the short-term pressure on profits.

4. SUGGESTIONS FOR IMPROVING FINANCIAL PERFORMANCE OF ZIJIN MINING BASED ON EVA

Based on the calculation and analysis of EVA value, this paper finds that Zijin Mining urgently needs to improve its value creation ability. Currently, Zijin Mining still takes profit maximization as its main business objective, ignoring the appreciation of shareholders' value and the focus on the cost of equity capital. Therefore, the establishment of an EVA-centered evaluation system is crucial to measure the efficiency of the company in creating value for shareholders. In addition, combining the EVA assessment with the compensation and incentive system can help standardize the existing assessment system, improve the organizational structure, and enhance the overall operational efficiency. This paper puts forward the following three specific recommendations:

4.1. Constructing an EVA-centered Compensation Incentive System

Zijin Mining should be based on its own enterprise model, clear performance assessment standards, and adjust the incentive system. Only after clarifying the staff's work objectives and corresponding rewards, can we enhance the enthusiasm of the staff and promote the benign development of the enterprise. The EVA index can be applied to each department of the enterprise to eliminate the phenomenon of inconsistent performance assessment standards and build a more transparent and fair assessment system. By combining EVA with the current equity incentive system, Zijin Mining can make up for the shortcomings of the existing incentive appraisal system, maximize the stimulation of internal work vitality of the enterprise, make employees pay more attention to the creation of economic value added, and then improve work efficiency, reduce the waste of resources, reduce the cost of production, and protect the sustainable development of Zijin Mining.

4.2. Improving the Operational Efficiency of Zijin Mining's Assets

4.2.1. Enhanced fixed asset management

Zijin Mining should scientifically plan the existing mineral resources and rationally deploy the mining of each mine to ensure the efficient connection between the exploration and development process. At the same time, the enterprise should strive to improve refining technology, saving and comprehensive utilization of existing mineral resources, so as to support the long-term development of the enterprise. In addition, improving standardized processes can enhance the productivity of fixed assets under the premise of ensuring safe production operations for employees. Zijin Mining should also conduct mining on the basis of protecting the mining environment in order to reduce costs and support the long-term development of the enterprise. Through comprehensive management of fixed assets, we can reduce idle equipment, improve equipment utilization, accelerate asset turnover, reduce capital consumption, further increase the value of corporate assets, improve production and operation, and thus promote the optimization of the entire supply chain.

4.2.2. Optimizing the allocation of human resources

In order to achieve Zijin Mining's strategic objectives, optimizing human resource allocation is one of the key initiatives, in addition to cost control, quality improvement and increased efficiency. Enterprises can enhance their soft power by selecting internal employees with development potential and arranging vocational skills enhancement training to explore their potential, improve work efficiency, and enhance employees' sense of identity and belonging to the corporate culture. In addition, enterprises should implement human resources information management, centralized assessment, scientific and fair evaluation of human costs, so as to improve the enthusiasm of the staff, to ensure that employees pay more attention to the creation of economic value added, laying a solid foundation for the long-term development of the enterprise.

4.3. Sound Internal Control Systems

The introduction of EVA should follow the principle of gradual and orderly progress, and should be implemented on a small-scale pilot basis first, so as to avoid the risks brought about by blind promotion. First of all, it is necessary to widely publicize and implement the EVA concept within the enterprise, and gradually change the corporate culture into a value management-centered model. In this process, Zijin Mining's human resources department should play a leading role in facilitating the in-depth cooperation of various departments, establishing a set of education and training system for employees according to their aptitude, so as to infiltrate the EVA value management idea layer by layer and implement it into the actual work.

Secondly, a number of basic departments or subsidiaries should be selected as pilots to identify and summarize the problems and challenges of EVA in actual operation in a timely manner through repeated practice and formulate corresponding solutions. This will not only help accumulate successful management experience, but also draw lessons from failures and provide strong support for the company-wide promotion of EVA. By setting up typical successful pilots, it can play the role of demonstration and promote the active participation and response of other departments.

Finally, it is necessary to comprehensively use the EVA concept to carry out a comprehensive performance evaluation of the company's finances, and on this basis, optimize and improve the existing performance management system, so as to promote the effective docking of EVA financial performance indicators with the current financial evaluation system. By gradually infiltrating EVA financial indicators into all levels of management and operation, and closely integrating them with production activities, the role of grass-roots departments in overall value creation can be strengthened, and the overall value-added capacity of the enterprise can finally be enhanced to promote the long-term sustainable development strategy of Zijin Mining.

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