

Profitability Analysis of New Material Company - Taking Orient Zirconic Industry as an Example

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Abstract. In recent years, with the vigorous development of new materials, a number of excellent new material chemical enterprises have emerged in the A-share market, playing an increasingly important role in the industrial chain of various fields. The profitability of new material enterprises is the core element to determine the subsequent development of enterprises, which is very important for the production and development of the company. Therefore, this paper takes Orient Zirconic Industry as an example to analyze the profitability of New Materials Company, mainly aiming at four profitability indicators: return on net assets, gross profit margin, cost profit margin, operating profit ratio. The changes of each index are obtained by drawing, and the reasons for the changes are further speculated. Through the analysis of the full text, it is found that Orient Zirconic Industry has a good development trend in recent years, but there is still a big gap compared with the same industry. Based on this, we found some deficiencies and areas that need to be improved and strengthened, and put forward reasonable suggestions and measures.

Keywords: Orient Zirconic Industry; Profitability; Financial Analysis; Internal Management.

1. Company profile

Guangdong Orient Zirconic Ind Sci & Tech Co., Ltd (referred to as: Orient Zirconic Industry, stock code: 002167) was established in 1995 and approved to be listed on the Shenzhen Stock Exchange in September 2007. It is a key high-tech enterprise specializing in the development, production and operation of zirconium series products in the national torch plan. It has production bases in four provinces and five places in China, including Shantou, Lechang, Leiyang, Jiaozuo and Chuxiong. The products cover more than one hundred varieties and specifications in seven series, including zircon titanium ore, zirconium silicate, zirconium oxychloride, fused zirconium, zirconium dioxide, composite zirconia and zirconia ceramic structural parts. It has completed the leap of product chain and technology chain, has a relatively complete and perfect zirconium industry chain system, and has strong comprehensive competitiveness in China's zirconium industry.

The concept of enterprise development is knowledge, innovation and transcendence. As a pioneer in a new field, Orient Zirconic Industry is engaged in the development and manufacture of low-end zirconium materials to high-end zirconium products. Based on the production, research and development of high-tech zirconium products, it pays close attention to the world market dynamics, keeps up with the pace of new material science and its application development, and actively implements forward-looking and guiding research and development, so as to accumulate potential for the development of enterprises, win opportunities and improve market adaptability and competitiveness.

While committed to the research, development and application of new products and new technologies, the company has gradually expanded its business scale and promoted efficiency through effective forms such as cooperation, merger and acquisition expansion. It is predicted that the company will continue to expand financing channels and provide financial guarantee for enterprise development.

2. Summary of profitability analysis

Company profitability analysis is the core content of enterprise financial analysis and the basis of all management activities of enterprises. It related to the survival and development of enterprises. The company's profitability analysis process refers to the use of specific indicators, through a set of perfect evaluation system to evaluate the company's actual profitability, so that the company's leaders have a comprehensive understanding of the company's operating conditions, the overall management level, and make predictions for future development so as to provide a reliable basis for the formulation of business strategies and development strategies. At the same time, it achieves the purpose of supervising the work of operators in a sense, so that investors can obtain more benefits in business activities, protect the interests of the company, and promote the sustainable development of the company.

The profitability of enterprises is restricted by many factors. In the production and operation of enterprises, a set of scientific development strategies should be formulated according to their own characteristics to enhance the profitability of the company and ensure the financial operation of the company.

At present, scholars' analysis of corporate profitability is mainly based on the financial statement data of each enterprise, based on the DuPont analysis system, using mapping or mathematical modeling methods to evaluate and predict. Yuhang Gu [1] first analyzed the changes in operating income and sales net profit through mapping, and concluded that it is extremely important to analyze and pay attention to the process of transforming operating income into net profit. After that, through the analysis of the calculation process of the company's profit statement, it is found that the proportion of gross profit occupied by the period expenses cannot be ignored. If the proportion is large, the composition and change of the company's three major period expenses are also the focus of the analysis. Jinyun Wang et al. [2] used the improved DuPont analysis system, which is, adding the cash flow index of sales cash ratio to the traditional DuPont system, to analyze and evaluate the profitability of listed companies in the wine industry. Xinzi Chen et al. [3-4] used the analytic hierarchy process to study the profitability of Internet listed companies and shared bicycle companies under the light asset model. Zhen Zhang et al [5-6] used the method of artificial neural network to evaluate and predict the profitability of enterprises. According to the 2017-2021 financial report of Lanshi Technology, Qiyi Wang et al. [7] calculated the corresponding return on total assets, operating profit margin and net cash flow rate of total assets from the basic financial data of the company, and further analyzed the profitability of the company.

This paper finds that the analysis of a company's profitability is based on the statistics and analysis of the data in the report and the relevant information disclosed by the company, so as to obtain the operating performance of a company in a certain period of time and evaluate the company's profits. This analysis method can be seen from different angles. Through the calculation of the income statement, different indicators can be classified and compared. Each data in the balance sheet and cash flow statement can also be used to analyze the company's financial situation and find the company's operating conditions.

3. Profitability analysis of Orient Zirconic Industry

This paper mainly adopts quantitative methods, selects relevant financial indicators, calculates the financial data of Orient Zirconic Industry in recent years, and analyzes the changes and trends, and then makes horizontal and vertical comparisons. The following is a comprehensive analysis and evaluation of the profitability of Orient Zirconic Industry from four aspects: return on net assets, gross profit margin, cost profit margin and operating profit ratio.

3.1. Return on net assets

The rate of return on net assets refers to the ratio of the company's net profit to the average shareholder's equity, which reflects the income level of shareholders' equity and measures the

efficiency of the company’s use of its own capital. The higher the index value, the higher the return on investment. From the horizontal comparative analysis of Figure 1, it can be seen that from June 2021 to September 2022, the return on net assets of Orient Zirconic Industry was higher than the industry average, but compared with 2021, the return on net assets showed an overall downward trend in the whole industry in 2022. In contrast, the decline rate of Oriental Zirconium is relatively low, showing obvious industry advantages.

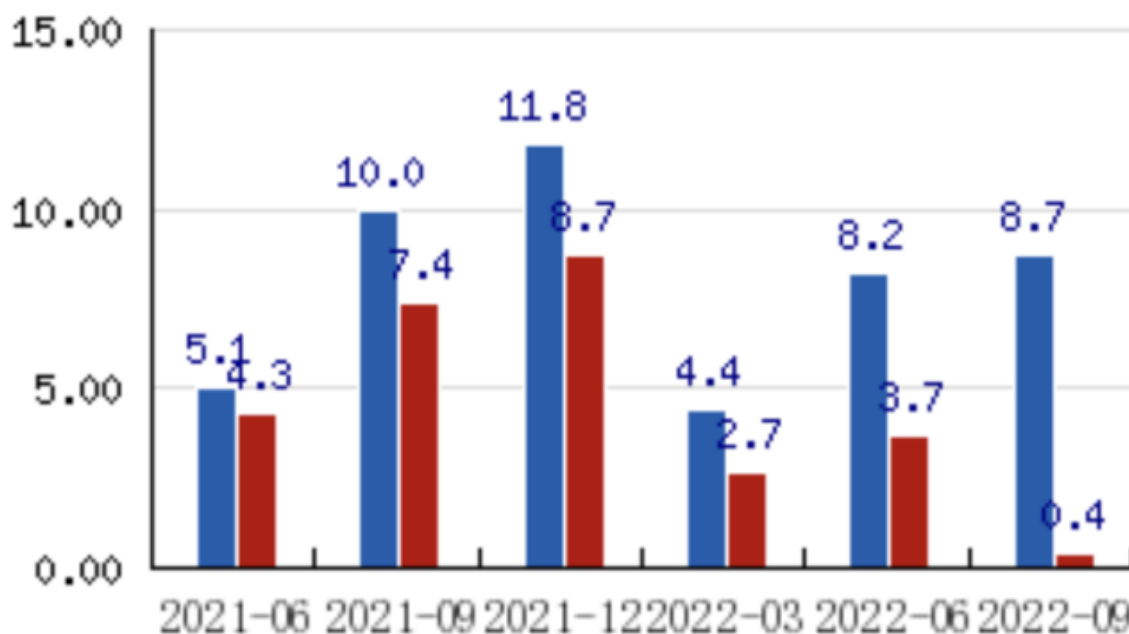


Figure 1. Comparison of return on equity.

Blue represents Orient Zirconic Industry, and the red part represents the average value of the non-ferrous metal industry.

Based on the quarterly data (see table 1) and annual data (see figure 2) from 2018 to 2022, it is found that the return on net assets of Orient Zirconic Industry fell sharply at the end of December 2019. Although the form of the whole year in 2020 has improved, the gap is still large compared to 2018, and 2021 has improved significantly. The analysis shows that the outbreak of the new coronavirus epidemic has a great impact on the company, which directly damages the shareholders' equity and leads to a decline in the return on net assets.

Table 1. Quarterly data from 2018 to 2022.

Date	ROE	Change over previous period	Date	ROE	Change over previous period
2022/9/30	8.71	↑0.49	2020/9/30	-5.68	↑0.24
2022/6/30	8.22	↑3.81	2020/6/30	-5.92	↓0.33
2022/3/31	4.41	↓7.45	2020/3/31	-5.59	↑18.6
2021/12/31	11.86	↑1.85	2019/12/31	-24.19	↓24.94
2021/9/30	10.01	↑4.93	2019/9/30	0.75	↑0.05
2021/6/30	5.08	↑4.94	2019/6/30	0.7	↑0.52
2021/3/31	0.14	↑14.76	2019/3/31	0.18	↓0.84
2020/12/31	-14.62	↓8.94	2018/12/31	1.02	↓0.42



Figure 2. Return on net assets in 2018-2021 and 2022 quarterly reports.

Blue represents the rate of return on net assets (%), yellow represents the year-on-year decline in the situation

3.2. Gross profit margin

Gross profit margin = (net sales revenue-product cost) / net sales revenue × 100 %

Enterprises earn income by selling products. Gross profit margin is an important operating index of listed companies, which can reflect the competitiveness and profit potential of the company's products. It reflects the initial profitability of the company's product sales and is the starting point of the company's net profit. Without a sufficiently high gross margin, it cannot form a large profit.

The study found that the gross profit margin of Orient Zirconic Industry ranked sixth in the non-ferrous metal industry, accounting for the top 25 % of the same industry, significantly higher than the industry level, indicating that the company's products have high added value, high product pricing. Compared with peers, the company has cost advantages and the products are competitive.

Compared with history, as shown in Figure 3, the gross profit margin of Orient Zirconic Industry fell every year from 2018 to 2020, and the year-on-year decline in 2020 was the largest. However, after 2020, the gross margin has increased significantly. We speculate that the company's industry may be in a period of recovery, product prices rose significantly. In this case, it is still necessary to consider whether this price increase can be sustained and whether the company's future profitability is guaranteed.

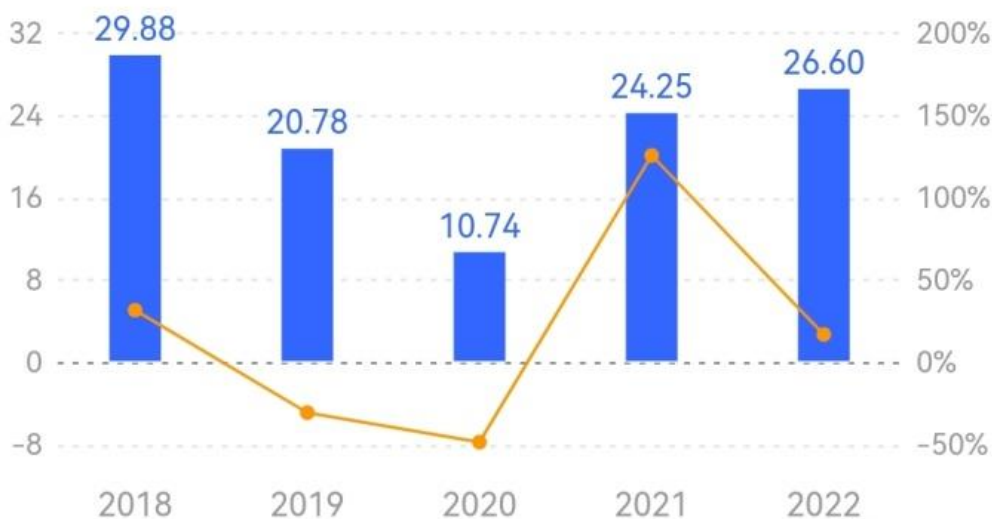


Figure 3. Gross profit margin in 2018-2021 and 2022 quarterly reports.

Blue represents the gross profit margin of sales, and the yellow part represents the year-on-year decline.

3.3. Cost profit margin

Cost profit margin is the ratio of total profit to total cost. Because this index reflects how much profit the enterprise obtains from all labor input, it is the best index to comprehensively reflect the economic benefit level of the enterprise.

It can be seen from the formula that the profit rate of enterprise cost is high, indicating that the enterprise creates more profits with less labor input, and the enterprise has strong profitability and good economic benefits. However, how to calculate the cost profit margin, where the required information comes from, and what factors affect the change of the index are worthy of analysis and research. Firstly, the above formula is too simple to calculate. The molecules and denominators of the above formula can be decomposed. From the denominator data, the total cost should include the production cost and the period cost. Since the molecule is the financial achievement that the enterprise has achieved, the production cost should adopt the production cost of the sold product, that is, the product sales cost more appropriate, so that the molecular and denominator data can be compared, and the resulting cost profit margin index is accurate and reliable. From the perspective of molecular data, the total profit is also affected by factors such as operating profit, investment income, and non-operating income and expenditure.

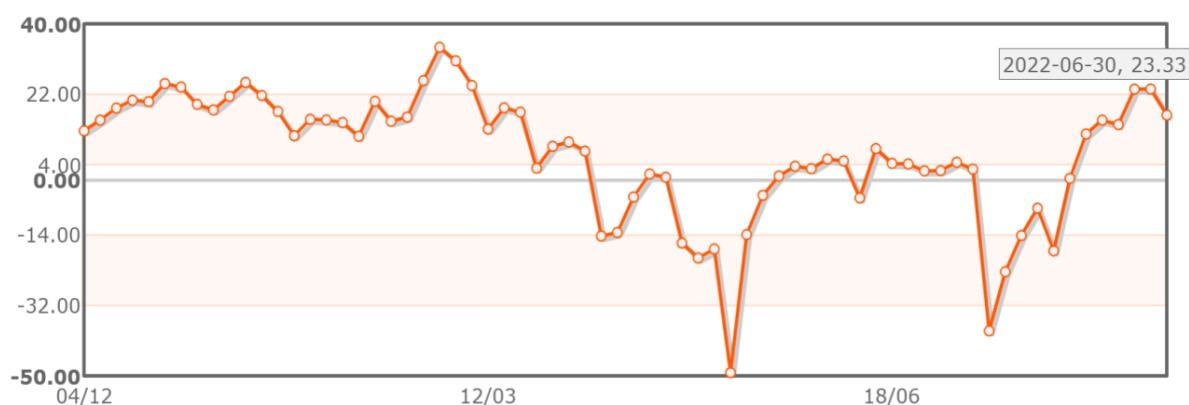


Figure 4. Orient Zirronic Industry cost profit margin curve over the years.

According to Figure 4, it can be found that the cost profit margin of Orient Zirronic Industry was relatively flat from 2004 to 2014, indicating that the economic benefit level of Orient Zirronic Industry was relatively stable during this period. But by 2015, the company reached the lowest level of cost profit margin. Looking at historical data, it can be found that global commodity prices plummeted in 2015, which may indirectly affect non-ferrous metals and related chemical and new materials industries. At the beginning of 2019, the company's cost profit margin began to rise slowly, except for the new coronavirus outbreak at the end of December, which led to a period of decline in the ratio. The overall upward trend shows that the economic benefits of Orient Zirronic Industry have developed well in recent years.

3.4. Operating profit ratio

The operating profit ratio is the percentage of operating profit and operating income. The operating profit reflects the operating results of the enterprise. The operating income consists of two parts: main business income and other business income. This percentage can comprehensively reflect the business efficiency of an enterprise or an industry. It is a measure of business efficiency indicators, reflecting the profitability of products and the core competitiveness of enterprises.

According to Figure 5, the operating profit ratio of Orient Zirronic Industry has fluctuated greatly from 2018 to 2022, while the industry average remains basically unchanged. From 2019 to 2020, the

company's operating profit margin fell sharply, and then slowly recovered until it exceeded the industry average. Since 2020, from the initial far below the industry average to the later approaching and exceeding the industry average, the sales competitiveness of Orient Zirconic Industry has been continuously enhanced, and the income has also increased year by year, showing a good development trend. However, the operating profit ratio of 2021-2022 clearly shows a slow growth and a downward trend, which requires enterprises to continuously strengthen internal management and adjust relevant policies according to changes in the external environment to better maintain the good growth since 2020.

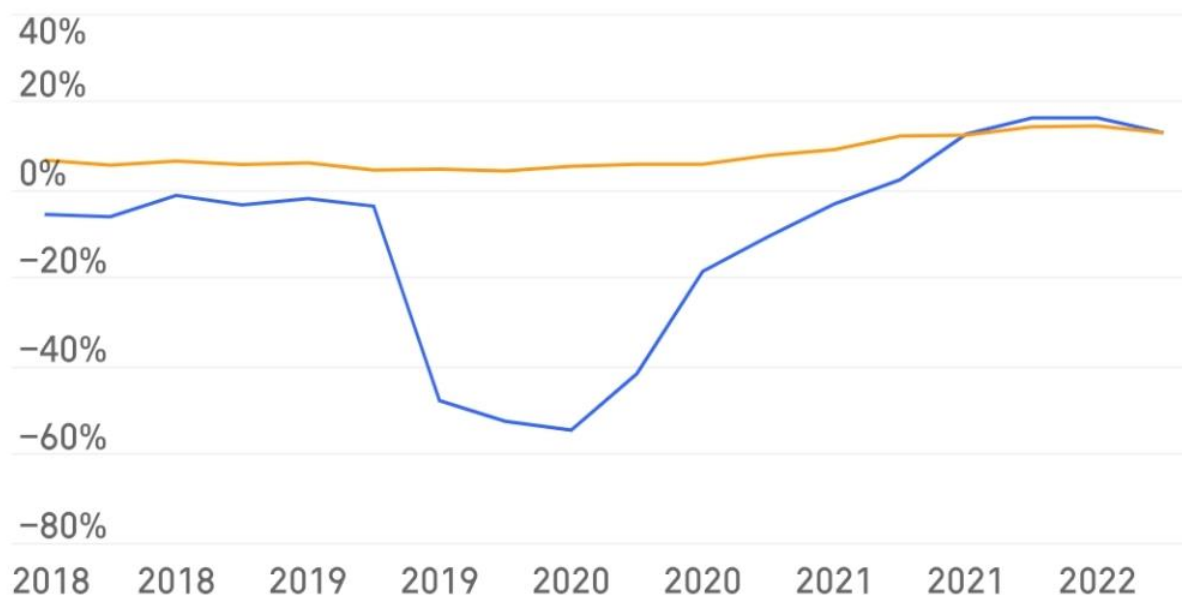


Figure 5. Interim and annual report data from 2018 to 2022.

Blue represents the operating profit margin, yellow represents the industry average.

4. Financial profitability improvement measures

Through the above analysis of the profitability of Orient Zirconic Industry, this paper finds out the shortcomings of the enterprise in the business process. Based on this, the following three suggestions and improvement measures are put forward:

4.1. Strengthen cost control, improve operating profit

According to the cost profit margin curve of Orient Zirconic Industry over the years, this paper finds that the company's the cost profit margin curve began to show a downward trend from June 30, 2022, indicating that the company's cost has a large adverse change in 2022. Enterprises need to strengthen cost control, thereby increasing operating profit. In this regard, this paper proposes the following improvement measures.

First, prepare the cost budget and use scientific cost accounting methods. Secondly, decompose the work of cost budget, pay attention to the key links, implement the responsibilities of each link to people, and strengthen the post responsibility system. Thirdly, train all employees, especially financial personnel, to strengthen the awareness of cost control.

4.2. Ensure the stability of profits

The core of enterprise management is to achieve profitability and improve competitiveness among industries. It is necessary to maintain stable profitability. The profitability of enterprises becomes stronger, and business security can be guaranteed to resist changes in the economic environment, maintain and further increase market share. The operating profit ratio and cost profit margin curve

show that the profit of Orient Zirconic Industry is very unstable, and enterprises need to learn a reasonable way to maintain the stability of profit. First of all, enterprises should make the right strategic choice, determine their own enterprise market positioning. They cannot see too high or too low of the development of their own advantages of the project, so as to protect their competitiveness. Secondly, stable profit is a continuous profit without loss, but this state is not unalterable. It is inevitable that the enterprise will have a loss, so it is necessary for the enterprise to ensure the stability of profit while reducing the loss. In the specific operation, we should have a target plan, make a good judgment of expectations, do not blindly follow the trend, and make business decisions while maintaining controllable risks, so that the profitability of enterprises can basically be in a relatively stable state.

4.3. Continuous improvement and innovation

For high-tech enterprises in the non-ferrous metal industry such as Oriental Zirconium, new products need to appear continuously, which requires enterprises to have sufficient R&D capabilities and R&D investment, and to increase the number of technical talents within the enterprise. By constantly introducing new products, seize a large market share, enhance the influence of enterprises in the market, and stabilize the market position of enterprises. At the same time, enterprises should also pay attention to brand marketing, improve brand awareness and industry reputation, increase the publicity of products and culture, and leave a good corporate image to consumers. Whether the products produced by enterprises meet the needs of the market and whether they can meet the pace of market upgrading will affect the stable and healthy development of enterprises in the future. Enterprises can innovate in production processes, production processes, sales methods, and product functions. New material enterprises are inseparable from innovation. Only by continuously introducing new products can they retain consumers. They should pay attention to product diversification, broaden consumer circles, and constantly optimize product content to meet market needs.

4.4. Control the structure of enterprise assets and liabilities

As shown in Figure 1 above, although the return on net assets of enterprises shows a gradual growth trend in 2022, there is still a large gap compared with 2021. The study believes that the company's ROE still has a lot of room for improvement. Here, this article will put forward relevant suggestions from the asset liability structure.

The structure of assets and liabilities mainly represents the proportion of current assets and total assets of enterprises, and the structure of assets and liabilities also has corresponding indicators, that is, the current assets rate of enterprises, that is, the ratio of current assets to total assets. It shows the general situation of the production and operation activities of enterprises. The higher the current asset rate is, the more important the production and operation activities of enterprises are for enterprises [9]. The asset-liability structure level of an enterprise indicates the asset-liability profile of an enterprise, so the reasonable arrangement of the asset-liability structure cannot be ignored.

In order to improve the return on net assets, enterprises need to reasonably control the structure of corporate assets and liabilities. If the capital and liability structure of enterprises is optimal, the value of enterprises can be maximized. Enterprises should also balance long - term assets and current assets, long - term liabilities and current liabilities ratio to optimize the structure of enterprise assets to the greatest extent. At the same time, debt management is conducive to the use of financial leverage, which can better play the potential of enterprises and maximize the benefits of enterprises. However, if the debt ratio is too high, the negative impact should not be underestimated. For all enterprises, the high debt ratio of enterprises will lead to the expansion of financial expenses, thereby increasing the cost of enterprises, reducing profits and return on net assets, and even insolvency, causing financial risks. In order to increase the net profit of enterprises more effectively, enterprises need to optimize the structure of assets and liabilities.

5. Conclusions

This paper takes Orient Zirconic Industry as an example to analyze the profitability of New Materials Company. Through the financial report data in recent years, the four profitability indicators of return on net assets, gross profit margin, cost profit margin, operating profit ratio were analyzed in detail. Through the analysis of the full text, it can be seen that the profitability of Orient Zirconic Industry is medium in the same industry, and the return on net assets and gross profit margin of sales have increased continuously in the past two years. Although the cost profit margin fluctuates greatly, it has been on the rise in recent years. Since 2020, the operating profit ratio has been growing too close to the industry average, but it still faces a downward trend. On this basis, we further find out the reasons behind the change trend of the profitability of the Orient Zirconic Industry over the years, and find out some shortcomings and areas that need to be improved and strengthened in view of the profitability of the Orient Zirconic Industry. Finally, we put forward reasonable suggestions and measures. We hope it can provide reference for the development of the same type of new material enterprises.

In a competitive and constantly evolving market, Orient Zirconic Industry has its unique development potential and advantages, but still needs to accept many unknown challenges. This requires enterprises to continuously strengthen internal management, improve relevant systems, and continuously improve production efficiency and innovation capabilities to gain more consumers' favor. At the same time, Orient Zirconic Industry should formulate reasonable measures to minimize fluctuations and maintain a steady rise in profits so that enterprises can develop steadily in the market.

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