

RESEARCH ON FINANCIAL SUSTAINABILITY AT VINACOMIN - MINERALS HOLDING CORPORATION

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Abstract: *Sustainable development is becoming an indispensable global trend. This is a social responsibility for Vietnamese enterprises and a potential new business opportunity. Financial sustainability is the goal financial managers aim for in financial activities. Sustainability requires that the enterprise's financial status be strong enough for the enterprise to continue operating and making profits year after year. Vinacomin - Minerals Holding Corporation (Vimico) is a leading enterprise in mineral exploitation and processing in Vietnam. Hence, financial sustainability is also of interest to managers when planning business development strategies in the context of increasing competition in the domestic and international mineral markets. Therefore, in this article, the authors would like to discuss the theoretical basis of financial sustainability, on that basis, applying research at Vimico.*

Keywords: *Financial sustainability, sustainable development, Vinacomin - Minerals Holding Corporation, Vimico*

1. Introduction

Sustainable development is a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs based on a close and harmonious combination of economic growth, solving social problems, and protecting the environment. In the report "Our Common Future," the President of the World Commission on Environment and Development of the United Nations - Ms. Brundtland, said: "Sustainable development is a development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (Brundtland, 1987).

Sustainable development is a concept with a very broad connotation, which can be approached in separate fields and separate scopes. In the financial field, financial sustainability can be considered from the perspective of maintaining a sustainable economy, with the core element being financial services, such as banking. Within the scope of each business, financial sustainability can be understood in terms of ensuring profitability, ensuring solvency, ensuring the ability to provide capital, and preserving and developing capital, especially equity capital, without affecting the long-term development strategy as well as the goals of social equity and environmental protection that the establishment is aiming for.

Vimico is a subsidiary of Vietnam National Coal and Mineral Industries Holding Corporation Limited (Vinacomin), annually contributing billions of VND (equivalent to hundreds of thousands of dollars) to the State Budget, and is an enterprise with a large and

stable number of shares traded on the Vietnamese stock market. Therefore, Vimico's financial sustainability is the foundation for this company to perform well in its business activities. It creates trust for investors, creates sustainable development for the company and the Vietnamese mineral industry, and brings more stable contributions to society. In this article, the authors will discuss the theoretical basis of financial sustainability in a business and, on that basis, evaluate the financial sustainability of Vimico in recent times.

2. Theoretical basis of financial sustainability in business

If we consider the economy as a whole, financial sustainability is maintaining a sustainable economy, with the core element being financial and banking services. Then, within the scope of each economic organization, financial sustainability can be understood in more specific terms.

An organization is considered financially sustainable if its financial and operational capabilities reach a certain efficiency level. This helps it survive and withstand adverse impacts from the external environment. A financially sustainable enterprise is one that can ensure its ability to pay its debts at any given time and does not negatively impact the economy and community despite adverse developments in the socio-economic environment (Lindgren, Garcia, & Saal, 1996).

According to the International Finance Corporation, financial sustainability is also defined as providing capital and risk management solutions for projects and business activities that promote or do not hinder prosperity, protect the environment, and create equity for society (IFC, 2000).

The financial aspect is the most crucial component in the business world for profit purposes. In addition, to evaluate the financial capacity of an economic organization, the authors also mention the indicators reflecting the financial strength of an enterprise, including capital scale, level of capital preservation and development, especially equity capital, ability to mobilize debt capital, self-financing ability, ability to ensure financial security, profitability (profitability of total business capital, profitability of equity capital) (Niven, 2005).

Some other researchers believe that "financial sustainability" means the proportion of equity capital of enterprises is significant so that enterprises can reorganize their finances with their available resources in a crisis. In financially sustainable enterprises, long-term profits are prioritized over any short-term benefits. To have a financially sustainable business, enterprises need to develop long-term goals and plan the financial intentions that the enterprise wants in the future (profits

the enterprise wants to achieve, cash flow requirements, current debts, etc.). Therefore, a plan must be created to help the business reach this position within a specified period. In addition, financial decisions should also focus on achieving long-term goals, avoiding making decisions that will provide the business with a short-term financial benefit but have a negative impact on the ability to achieve the business's long-term goals (Benn, 2014). From the above observations, financial sustainability is the satisfaction of current financial needs without causing harm to the ability to meet future financial needs.

A corporation is an economic organization consisting of a group of parent companies and subsidiaries with relationships in capital, technology, finance, information, training, research, and other connections arising from the interests of the parties involved, in which the parent company holds the leadership and control over the operations of the subsidiaries in terms of finance and development strategy. More specifically, the financial sustainability of the corporation will be achieved when it operates at the required level of profitability in a safe state. The balance between profitability and safety level must also be maintained for a long time. According to the authors, the financial sustainability of a business can be expressed in the following aspects:

Firstly, it is necessary to ensure long-term profitability. Every business establishment that wants to survive needs to have profit and income. Companies always aim to improve production and business efficiency and increase profitability. A company's profitability is reflected in absolute profit and profitability ratios, the most important of which are the return on total assets (ROA) and return on equity (ROE). For the company to aim for financial sustainability in its production and business operations, in addition to the goal of profit growth, it must maintain this growth steadily and stably over a long period.

Second, companies must ensure financial security in their business operations. When operating in a market economy, companies always face risks. Financial risks arise from the company's failure to use debt capital to finance its production and business activities, leading to the risk of being unable to repay its debts. A company with a high debt-to-equity ratio is using high financial leverage. If the company generates a basic return on capital higher than the debt interest rate, it will amplify the return on equity higher than expected. However, if an event negatively affects the efficiency of capital use, the basic return on capital falls below the debt interest rate. The return on equity will decline much faster than the basic return. When risks occur, costs will arise that reduce revenue and profit. Thus, from a financial perspective, a company must reduce risks and increase financial safety in business operations while still achieving expected profitability to ensure financial sustainability. Thus, the financial safety of a company can be assessed through the following indicators reflecting the ability to pay:

- + Current ratio (shows the level of assurance of short-term assets for short-term debts; if this ratio is greater than 1 or approximately equal to 1, the company can be considered to have the ability to pay short-term debts and the financial situation is normal),

- + Quick ratio (reflects the ability to pay short-term debts with short-term assets that can be quickly converted into cash; this high ratio shows that the ability to pay and the ability to ensure safety is good),

- + Cash ratio (evaluates the fastest ability of the company to use its assets in the form of cash and cash equivalents to pay short-term debts; the higher this ratio is, the better the ability to pay and the ability to ensure the safety of the company is).

- + Financial safety is also considered by assessing the level of investment capital safety with the debt/equity ratio (DER) ($DER = \text{Total Debt} / \text{Equity}$). In principle, the smaller this ratio is, meaning that the debt accounts for a small proportion of total assets or total capital, the less financial difficulties the company has, meaning it is more financially secure. The larger this ratio is, the greater the possibility of the company having difficulty paying debts or going bankrupt, affecting the financial sustainability of the company. According to the provisions of Decree 09/2009/ND-CP dated February 5, 2009, the Government, the safety threshold of total debt to equity for companies with State capital must not exceed 3 times.

Third, it is necessary to preserve and develop equity capital. In a market economy, the key condition for development is capital, which is considered as blood circulating in the body. In the operation of companies, capital must be fully provided to take advantage of business opportunities and not interrupt the production and business process. To provide sufficient capital, it is not always possible to mobilize from outside, but preserving and developing internal capital, especially equity capital, is important. Developing capital from external loans is not sustainable because it has many potential risks and is passive in the use process. Preserving and developing equity capital is a proactive way to help companies develop strongly, stably, and long-term to achieve the goal of financial sustainability. Therefore, the indicator of equity preservation level can be used to assess the level of preservation and development of equity capital. (Equity preservation level = $\text{Equity at the time of reporting} / \text{equity at the end of the previous period}$). If this ratio = 1, the enterprise has preserved its capital; if the ratio > 1, it has developed its capital (Circular 220/2013/TT-BTC).

3. Financial sustainability at Vimico

Vinacomin - Minerals Corporation Holding, formerly known as Vietnam Minerals Corporation under the Ministry of Heavy Industry, was established under Decision No. 1118/QĐ-TCCBDT dated October 27, 1995 of the Minister of Heavy Industry based on merging Vietnam Rare Minerals Corporation and Mineral Development Corporation. Through the development process, the Gem and Gold Corporation was merged into Vietnam Minerals Corporation, later transformed into a subsidiary of Vinacomin, with the

name of Vinacomin - Minerals Corporation Holding, operating under the model of a single-member limited liability company.

On December 30, 2014, the Prime Minister issued Decision No. 2388/QĐ-TTg approving the equitization plan of the parent company - Vinacomin Minerals Corporation Holding (Vimico). Accordingly, from October 6, 2015, Vimico officially operates under the model of a joint stock company with a current charter capital of about 2,000 billion VND; the organizational structure includes a parent company (including the executive management agency and 06 branches and representative offices (including 03 production companies)); 01 company with 100% charter capital owned by the corporation, 12 subsidiaries in which the corporation holds controlling shares and 17 joint ventures. The main activities of the corporation are to do business in the main fields such as exploration, exploitation, processing, selection, and refining of minerals, including copper, zinc, lead, tin, iron, cast iron, gold, silver, ilmenite, tungsten, production of sulfuric acid, etc. concentrated in the provinces of Lao Cai, Cao Bang, Thai Nguyen, Tuyen Quang, Bac Kan, Nghe An.

In the period of 2019 - 2023, Vimico will follow the growth model of "Developing a synchronous, advanced and modern mineral industry with a high growth rate based on going hand in hand with extensive development, enhancing in-depth development by applying new, advanced, modern and environmentally friendly technologies" (Vinacomin Minerals Corporation Holding (2023), Annual Report), the development goal is "developing the corporation to become a leading non-ferrous metal mining and processing enterprise in Vietnam; with good financial potential, effective production, and business, sustainable development" (Vinacomin Minerals Corporation Holding (2023), Annual Report), the development orientation is "Sustainably developing the mineral mining - metallurgy industry in a modern direction, maximizing resource recovery, being

- Ability to ensure long-term profitability:

environmentally friendly, in harmony with the locality and community, with high socio-economic efficiency, etc." (Vinacomin (2023), Annual Report). To achieve this goal and orientation, Vimico is currently focusing resources, effectively using the capital of the corporation and its affiliated units to carry out exploration and survey work according to the strategic orientation of mineral development of Vinacomin; accordingly, continuing to accelerate the implementation of projects to explore copper minerals in Lao Cai province such as Sin Quyen mine, Coc My zinc mine; at the same time, requesting to survey and explore some new mines such as Lung Thang mine, Nam San mine, Nam Mit mine in Bat Xat district, Lao Cai province (Decision No. 866/QĐ - TTg dated July 18, 2023).

By 2023, the total consolidated revenue of Vimico will reach 11,926 billion VND/11,800 billion VND of the plan, reaching 101.07% of the plan and equal to 97.09% compared to 2022, of which mineral revenue alone will reach 11,657.83 billion VND. The consolidated earnings before interest and tax of the whole corporation will reach 233.61 billion VND/147 billion VND of the plan, reaching 158.92% of the annual plan and equal to 94.51% compared to the previous year. The State budget payment of the corporation will reach 1,528.6 billion VND, 165.3% of the annual plan. The average income of the whole corporation reached 14,216 million VND/person/month, equal to 99.7% of the plan and 102.85% compared to the same period last year, in which the parent company of the corporation had an average income of 17,207 million VND/person/month.

Vimico is a unit that contributes a large amount of revenue to the State budget every year and plays a key role in the national mineral industry, it has a great influence on the stock value of the mineral industry in the domestic and international stock market, so the financial sustainability of Vimico is very necessary. With the above theoretical basis, the authors evaluate the financial sustainability of Vimico as follows:

Table 1. Some indicators reflecting Vimico's profitability in the period 2019 - 2023

	Unit	2019	2020	2021	2022	2023
Earning before interest and tax	Billion VND	15.51	243.09	1,303.05	247.17	233.61
Net profit	Billion VND	(43.02)	204.65	1,084.40	202.06	160.00
Average Total Assets	Billion VND	7,845.72	8,165.89	9,911.76	10,973.84	10,024.54
Owner's Equity	Billion VND	2,492.23	2,430.20	2,827.62	3,148.24	3,011.62
ROA	%	(0.55)	2.51	10.94	1.84	1.60
ROE	%	(1.73)	8.42	38.35	6.42	5.31

Source: Authors' calculation based on consolidated financial statements of Vimico from 2019 - 2023

Table 1 shows that in the period from 2019 to 2023, Vimico's production and business activities were profitable, with the highest profit in 2021. The earning before interest and tax was 1,303.05 billion VND, and the net profit was 1,084.40 billion VND. The reason is that in 2021, the corporation overcame the severe impact of the COVID-19 epidemic to ensure progress and initially put into production with large projects. Vimico also promoted initiatives, technical improvements, and applied science and technology to management, production, and business with 145 technical improvement initiatives - production rationalization throughout the corporation, with a profit value of 48.3 billion VND. In 2021, mineral revenue and profits increased due to the high prices of the corporation's main mineral products. In 2021, the corporation completed the procedures to merge Viet Nhat Gemstone Company Limited into the corporation, which also affected the company's strong growth in

2021. In the whole period, only in 2019 was the corporation's profit the lowest due to the serious impact of the Covid pandemic on the global economy, leading to plummeting prices of goods, many areas were isolated and blocked, entry for foreign experts was blocked, so many projects had to adjust progress, slow site clearance affected the corporation's production and business progress. The net profit in 2019 was negative because the corporation's deferred corporate income tax was too large, up to nearly 30 billion. In the remaining years, the corporation's profit of minerals corporation was maintained at around 200 billion.

Figure 1 illustrates the scale of Vimico's earning before interest and tax in the period of 2019 - 2023. The chart shown in Figure 1 shows that during the whole period, this criteria had quite good growth, especially in 2021, however, in the following years, this growth rate could not be maintained.

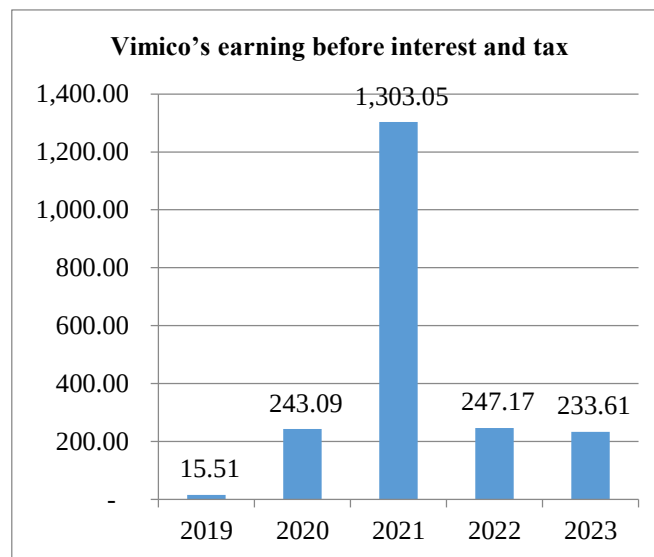


Fig 1. Growth rate of Vimico's earning before interest and tax in the period 2019 - 2023

To more accurately assess Vimico's profitability, we can base it on the Return on Assets (ROA) and Return on Equity (ROE) ratio. Both of these indicators in Table 1 and Figure 2 show an upward trend, significantly a sharp increase in 2021, with ROA reaching 10.94% and ROE reaching 38.35%. However, in the following years, ROA and ROE tend to decrease, with ROA reaching 1.84% in 2022 and 1.6% in 2023;

ROE will reach 6.42% in 2022 and 5.31% in 2023. Although the ratio of ROA and ROE has increased compared to the beginning of the research period, the unstable growth of profitability coefficients in the period 2019 - 2023 shows that the financial situation of Vimico is not stable; this is not a good sign for the sustainable financial development of the Corporation.

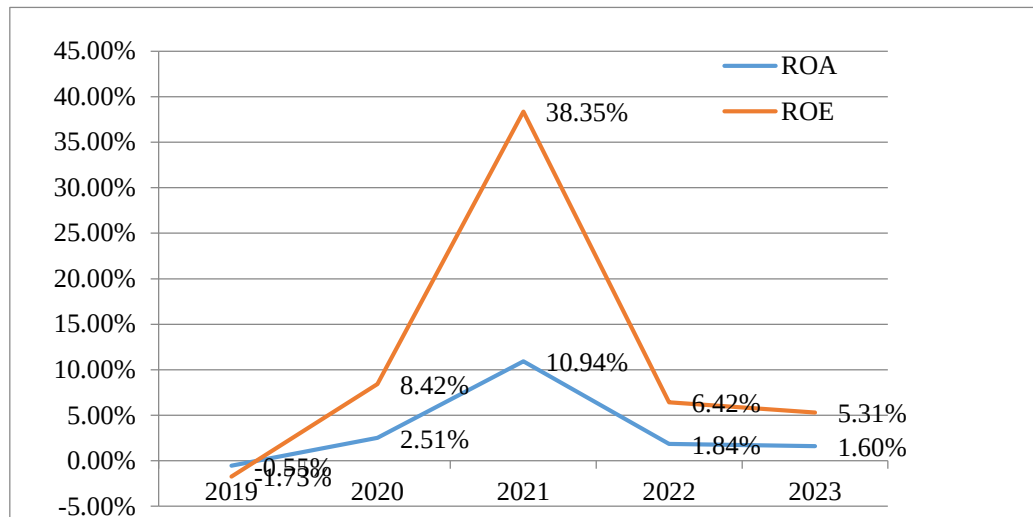


Fig 2. Trend of fluctuations in Vimico's ROA and ROE in the period 2019 - 2023

- Financial security capability

To assess the financial security capability as analyzed above, the authors use indicators reflecting the solvency and consider the level of investment capital safety. The solvency reflects Vimico's ability to pay debts from the Corporation's assets. Through the calculation data in Table 2, it can be seen that the general solvency ratio of the Corporation is always greater than 1, proving that the total assets are sufficient to ensure the total liabilities, the current ratio in the whole period is less than 1, showing that the ability to pay short-term debts with short-term assets of the Corporation is low. However, this ratio tends to

increase in the years 2021, 2022 and 2023, showing that the ability to pay short-term debts of Vimico has improved at the end of the research period; Vimico's quick ratio and cash ratio in the period 2019 - 2023 are always less than 0.5, showing that Vimico is having difficulty paying short-term debts with highly liquid assets such as cash and cash equivalents, receivables, which also shows that Vimico's inventories are at a high level. In terms of trends, the quick ratio and cash ratio of the Corporation have increased, but the increase is low and unstable; this is a sign that Vimico has not achieved financial security. This is also a bad sign, affecting financial sustainability.

Table 2. Some indicators reflecting Vimico's financial safety level in the period 2019 - 2023

	End of 2018	End of 2019	End of 2020	End of 2021	End of 2022	End of 2023
Current ratio	0.87	0.78	0.80	0.96	0.92	0.90
Quick ratio	0.38	0.36	0.36	0.22	0.32	0.31
Cash ratio	0.06	0.06	0.06	0.04	0.08	0.07
DER ratio	2.07	2.23	2.48	2.52	2.45	2.20
E/C ratio	0.33	0.31	0.29	0.28	0.29	0.31

Source: Author's calculation based on Vimico's consolidated financial statements from 2019 - 2023

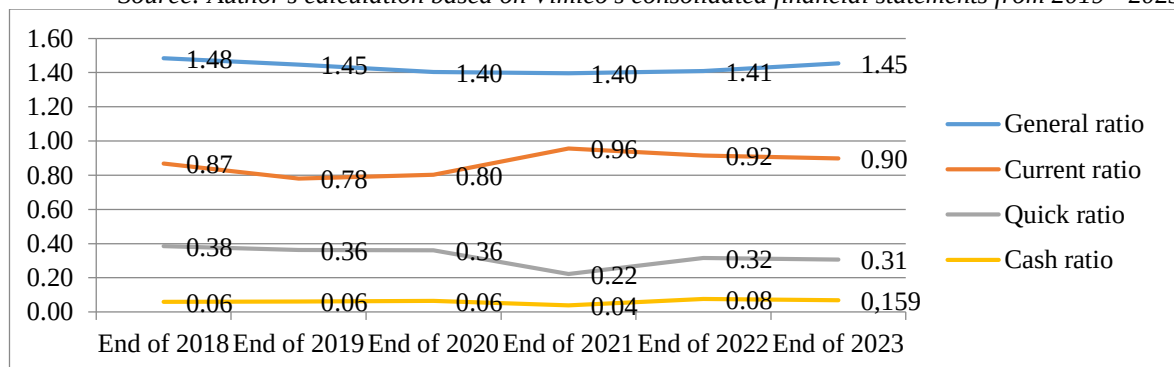


Fig 3. Fluctuation trends of indicators reflecting Vimico's solvency in the period 2019 - 2023

The level of investment capital safety is shown through the Debt/Equity ratio (DER). Table 2 shows that in the period from 2019 to 2023, Vimico's DER is within the allowable threshold according to the

regulations on financial management for companies with State capital (stipulated in Decree 09/2009/ND-CP dated February 5, 2009). However, this ratio tends to increase gradually, especially in 2020 - 2022,

showing that Vimico tends to increase debts in these years. This is a bad sign from the financial sustainability perspective, showing Vimico's financial safety has decreased.

Self-financing capacity considers the level of financing for the corporation's assets with capital sources belonging to the owner. According to Table 2, in the period 2019 - 2023, in all years, Vimico's self-financing coefficient was < 0.5 , which shows that payables mainly financed the corporation's assets. The low self-financing coefficient, and at the same time, the trend shows that this coefficient tends to decrease gradually during the research period, proving that Vimico's self-financing capacity is increasingly decreasing. This is a bad sign for the financial sustainability of the corporation because it shows that Vimico is increasingly dependent on external creditors; Vimico needs to take advantage of its internal financial capacity and make good use of its internal resources. Reducing self-financing capacity also means increasing risks for the corporation. If Vimico does not have a strategy to deal with risks, it will greatly affect future development.

- Ability to preserve and develop equity

Next, we study the data in Table 3 and Figure 4 to evaluate Vimico's ability to preserve and develop equity.

Table 3 and Figure 4 show that from 2019 to 2023, Vimico's equity has increased in quantity, higher each year than the previous year in the years 2020 - 2021. Therefore, if we consider the year's end compared to the year's beginning, the corporation's equity in these years has always been preserved. The increase in the amount of equity is completely reasonable with the increase in the scale of capital and assets of the corporation in these 2 years. However, by the end of 2022, Vimico's equity had decreased again, and this trend continued until 2023. If we consider the trend, the equity conservation coefficient of the corporation and the parent company in this period tends to decrease gradually, showing that the level of equity conservation and development is fluctuating in a direction that is not favorable for Vimico's financial sustainability. In 2022, there are signs of not preserving equity capital, with the total equity preservation ratio of the whole corporation reaching only 0.97 times, that of the parent company is 0.94 times; in 2023, it is 0.94 and 0.95 times, respectively, both less than 1, showing that Vimico has not preserved equity capital in recent years. Thus, in terms of internal strength, there is an increase in equity capital, but this growth rate is not equal to the level of debt, leading to a decrease in Vimico's self-financing ability. From a financial sustainability perspective, Vimico needs to exploit and use its equity capital more effectively to reduce possible damage and future debt burdens.

Table 3. Vimico's equity conservation ratio period 2019 - 2023

	End of 2018	End of 2019	End of 2020	End of 2021	End of 2022	End of 2023
1. Equity (Billion VND)						
- Corporation	2,585.26	2,399.19	2,461.21	3,194.02	3,102.45	2,920.78
- Parent company	2,096.31	2,133.86	2,231.75	2,636.00	2,469.21	2,334.97
2. Equity preservation ratio						
- Corporation		0.93	1.03	1.30	0.97	0.94
- Parent company		1.02	1.05	1.18	0.94	0.95

Source: Authors' calculations based on Vimico's consolidated financial statements from 2019 – 2023

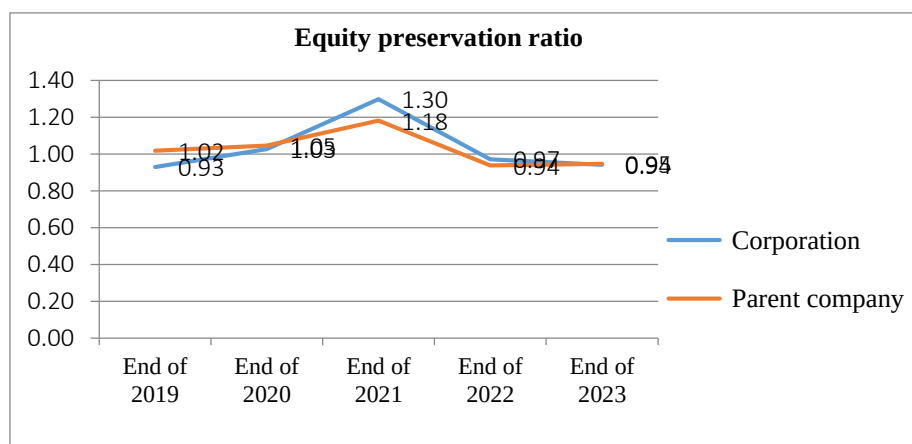


Fig 4. Fluctuation trend of Vimico's equity conservation coefficient in the period 2019 - 2023

4. Conclusion

The financial situation clearly reflects the actual state of business operations. Therefore, financial sustainability must be a top priority to achieve stable

and long-term business development. Through the above analysis, it can be concluded that in the period of 2019 - 2023, Vimico has not achieved the criteria of financial sustainability, specifically:

- Profit tends to increase but is not stable. By the end of the period, there is a decrease, including earnings before interest and tax, net profit, or profit margin indicators such as ROA and ROE. The most notable decrease is ROE, especially in the last two years of the period, 2022 and 2023.

- Current and quick ratios, although tending to increase, are always lower than the allowable limit; the increase is low and unstable, and by the end of the period, there are signs of a decrease. With the low cash ratio, low self-financing ratio, and decreasing trend, the DER increased during the research period, showing that the capital safety level and the ability to ensure the financial safety of Vimico during this period were low. During the research period, in terms of equity capital, Vimico still had growth. However, the decreasing trend of the equity preservation ratio of the whole

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corporation and the parent company, especially in the last 2 years, showed a bad sign for Vimico's financial sustainability.

In the coming time, to improve the financial situation towards financial sustainability, Vimico needs to ensure more stable growth in profitability by increasing productivity, reducing costs, increasing the ability to ensure financial security by increasing solvency ratios, especially the current ratio, improving the level of investment capital safety and self-financing ability, improving the level of preserving and developing equity by increasing the efficiency of using equity, reducing debt within the framework of ensuring an optimal capital structure for Vimico.

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