

Comparative Analysis of Investment Value in Chinese Household Appliance Industry

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Abstract. As an important part of the consumption field, household appliances play a key role in China's economic growth. After 30 years of development, China's home appliance industry has made remarkable achievements and occupies an important position in the world's home appliance industry. It has become the largest manufacturing base and consumer market of home appliances in the world, leading international counterparts in cost and quality, with obvious advantages. There is no doubt that the value of an investment in China's home appliance industry is also growing. Therefore, this paper adopts appropriate evaluation methods to study the investment value of three major home appliance companies in China -- Haier Zhijia, Gree Electric, and Changhong Meiling, so that the majority of investors can realize their investment value, and at the same time, it also contributes its own strength to guide investors to make rational value investment and promote the healthy development of Chinese capital market. This paper compares and analyzes their investment value from three aspects: risk ratio, profitability ratio, and market value ratio. Based on the analysis, the conclusion of this paper is that these three companies are basically excellent, have broad investment value, and Haier Zhijia has the most development prospects.

Keywords: Chinese household appliance industry; investment value; risk ratio; profitability ratio; market value ratio.

1. Introduction

Under the background of the Chinese macro-economy constantly maintaining medium-high speed growth, Chinese urban and rural residents' per capita disposable income is also increasing, and as the capital market gradually mature, the average people's demand for property value appreciation grows gradually. At the same time, in recent years, the capital market, especially the stock market, has continuously deepened reform: the opening of the science and Technology innovation board in 2019, the revision of the Shanghai Composite Index in 2020, and the full opening of the A-share market registration system are conducive to the long-term and healthy development of the Chinese stock market. Therefore, the Chinese stock market has become an important channel for many residents to realize asset value appreciation [1]. However, the development of China's capital market is not mature at present, small and medium-sized investors are still an important part of China's securities market, they have not established a mature investment analysis framework, investment concept is not mature, therefore, the systematic grasp of investment analysis methods, reasonable use of investment analysis tools, the formation of a comprehensive investment value evaluation system is extremely important for investors [2]. China has a large population, which provides lower labor costs for China's home appliance manufacturing industry, but also speeds up the expansion and development of Chinese home appliance enterprises, now in the world's home appliance manufacturing industry is also among the top, known "home appliance manufacturing power" in the world. Later after our country joined WTO, the entrance to a country began to open gradually, when foreign products enter China, Chinese household appliances also begin to enter foreign markets, and many home appliance companies formulated global development strategy, develop to participate in the home appliance market of the country [3-5].

It is under this background, to guide the majority of investors to make rational investments, value investments, promote the stock market return to a reasonable level, guide the optimal allocation of resources, and truly reflect the company value. So that finance can truly serve the real economy and play a role in serving investors and fundraisers, this paper chooses Haier Zhijia, Gree Electric

Appliances, and Changhong Meiling as cases to study the investment value of their groups and guide investors to invest scientifically and rationally by using the knowledge of finance and financial accounting.

2. Company Description

2.1. Gree Electric Appliances

The largest professional air conditioner company in the world, Gree Electric Appliances Co., LTD. was established in 1991 and integrates R&D, manufacturing, sales, and service. For eight years running, it has been included in Fortune's list of the "Top 100 Listed Companies in China."

With sales in more than 90 nations and regions worldwide, Gree Electric Appliances' "Gree" brand air conditioner is the sole "world famous" item in China's air conditioning market. For four years running, domestic air conditioner manufacturing and sales have ranked 1 globally since 2005. Gree has over 88 million users worldwide in 2008.

Gree Electric, a major manufacturer of electrical appliances with a concentration on air conditioning products, is dedicated to offering world consumers cutting-edge technology and top-notch air conditioning products. It employs more than 40,000 people across six industrial bases in Zhuhai, Chongqing, Hefei, Brazil, Pakistan, and Vietnam. It has so far created 20 categories, 400 series, more than 7,000 different product variants, and commercial and residential air conditioners, all of which are completely capable of satisfying the various demands of various customer groups. It has almost 2000 technical patents, and a number of high-end products, including the GMV digital multi-pair one-to-multi-unit, centrifugal large central air conditioner, and sine wave DC frequency conversion air conditioner, have filled domestic needs and broken the technological monopolies of refrigeration giants in the US and Japan. These products have transformed the notion of "Made in China" into "Created in China," gaining widespread acclaim on the global stage. [6-8].

"A company without innovation is a company without a soul; a company without core technology is a company without a backbone, and a person without a backbone will never stand up," the saying goes. Looking ahead, Gree Electric will continue to adhere to the development tenet of "self-development, independent innovation, the self-owned brand" with the objective of "creating a global leading air conditioning enterprise and achieving a century-old world brand of Gree," and will further its commitment to "Created in China."

2.2. Haier Zhijia

1984 saw the establishment of Haier Zhijia in Qingdao. From its foundation, Haier has adhered to a user-centered innovation approach to drive the sustainable and healthy growth of the company, transforming it from an insolvent and on the point of closure of the collective tiny plant to one of the largest producers of home appliances in the world.

It is a perfect footnote to Haier's continuous creation of the best experience for global users that it has been ranked the first brand of global large household appliances for six consecutive years. Especially after entering the network strategy stage, Haier has won netizens' recognition by providing consumers with brand-new intelligent life through one smart home appliance terminal after another.

In order to provide users with the best intelligent life experience, Haier has built a platform for continuous interaction with consumers, starting from the stage of product creation. A large number of useful resources generated by interaction will attract international top resources to participate in Haier's satisfaction of user experience, thus forming a win-win and sharing ecosystem. Together to provide consumers with a better intelligent life [9-10].

2.3. Changhong Meiling

One of the most significant producers of electrical appliances in China is Changhong Meiling Co., Ltd. It has four domestic manufacturing facilities in Hefei, Mianyang, Jingdezhen, and Zhongshan as well as international facilities in Indonesia and Pakistan, where it manufactures small household

appliances and air conditioning. It is also expanding into new industrial sectors like fresh food e-commerce and bio-medical research.

The mailing brand was born in 1983. Over the past 40 years, Meiling has witnessed the ups and downs of China's home appliance industry and is a constant leading role in its development of China's home appliance industry. From "Fresh Meiling" to "Know Refrigerator, Trust Meiling", generation after generation of product iteration and brand refresh, again and again, have laid the rich brand foundation of Meiling.

Meiling now succeeds in stable operation and growth on the home market in addition to taking an active part in the higher level of worldwide competition and collaboration. More than 130 nations and regions, including Southeast Asia, Europe, and the US, have purchased Meiling refrigerators, and sales have risen quickly for three years running.

Facing the future, under the guidance of the core values of "dedication, responsibility, co-creation, and sharing", Meiling will prove its professional strength with growth, focus on electrical appliance manufacturing, improve its core competitiveness, and continuously develop products to meet consumer demand so that Meiling will further enhance the discourse power of the industry and become a leading, world-class and respected household appliance enterprise in China.

3. Financial Ratio Analysis

3.1. Risk Ratio

Table 1. Risk Ratio of Gree Electric, Haier Zhijia, and Changhong Meiling

		Gree Electric	Haier Zhijia	Changhong Meiling
Risk Ratio	Market Cap	\$27.02B	\$32.36B	\$0.63B
	Current ratio	1.17	1.04	1.07
	Quick ratio	0.92	0.68	0.87
	Debt/Equity ratio	45.05%	14.46%	12.14%
	Beta	0.52	1	0.96
	Debt ratio	71.50%	59.49%	71.11%

As can be seen from Table 1, Gree Electric and Haier Zhijia are both large-cap stocks with market values of over \$15 billion, while Changhong Meiling is a small-cap stock with a market value of less than \$2 billion. Therefore, the size risk of Changhong Meiling is much higher than Gree Electric and Haier Zhijia.

The current ratio of Gree Electric, Haier Zhijia, and Changhong Meiling is not much different, indicating that their liquidity is similar. However, the quick ratio of Haier Zhijia is much lower than the other two, which may be due to the slow sales of products caused by the epidemic and other factors, so the inventory of Haier Zhijia increased by 8.81% compared with the same period last year, which indicates that the solvency of Haier Zhijia is worse.

An individual company's or stock fund's price movement in relation to the entire stock market is gauged by the risk index known as beta. At $\beta=1$, it denotes that the stock's returns and risks are comparable to those of the broad index. When $\beta>1$, it denotes that the stock's return and risk are higher than those of the market index. From this vantage point, Gree Electric's risk is significantly lower than that of Haier Zhijia and Changhong Meiling.

Debt ratio is used to measure the ability of an enterprise to use the funds provided by creditors to carry out business activities, as well as to reflect the degree of safety of the loans issued by creditors. It can be obtained through the ratio of the total liabilities and total assets of a company and can be used to measure the long-term solvency of a company.

From this perspective, it can be easily concluded that the risk difference between Gree Electric and Changhong Meiling is not much, and higher than Haier Zhijia.

3.2. Profitability Ratio

Table 2. Profitability Ratio of Gree Electric, Haier Zhijia, and Changhong Meiling

		Gree Electric	Haier Zhijia	Changhong Meiling
Profit Ratio	Total Asset Turnover	0.44	0.83	0.94
	Profit Margin	25.54%	30.49%	12.64%
	ROA	5.59%	6.21%	0.59%
	ROE	17.94%	13.15%	3.31%
	Revenue	\$21.95B	\$27.34B	\$2.28B
	Net Earnings	\$2.71B	\$1.73B	\$0.023B

Based on Table 2, the difference between an organization's average total assets during a certain time period and net sales revenue is known as the turnover ratio of total assets. It serves as a gauge for determining the proportion of asset investment to sales volume. The more the enterprise's ability to sell its products, the higher the turnover ratio of total assets, and the greater the return on asset investment. As can be seen from the table, Gree Electric has the weakest sales capacity, but its profit margin is high, which indicates that Gree Electric has good profitability and high-grade products. The asset turnover rate and profit margin of Haier Zhijia are high. Changhong Meiling has a high asset turnover ratio, but its profit margin is very low, its profitability is insufficient and the company may sell its products at a low price.

ROA is a measure of how much net profit is generated per unit of assets. ROE is the ratio of net profit to the average net asset of an enterprise, reflecting the level of return on owners' equity. From these two points of view, Haier Zhijia's profitability is higher than Gree Electric, and Changhong Meiling is the worst.

3.3. Market Value Ratio

Table 3. Market Value Ratio of Gree Electric, Haier Zhijia, and Changhong Meiling

		Gree Electric	Haier Zhijia	Changhong Meiling
Market Value Ratio	PE	8.08	14.72	38.30
	PB	2.06	2.72	0.95
	Dividend yield	0	1.54%	1.36%
	PEG	1.39	0.83	0.07
	Momentum	YES	YES	YES
	Insider Buying	NO	NO	NO
	Stock Buybacks	NO(4.09%)	NO(0.63%)	NO(1.37%)
	Smart Money	NO	NO	NO
	DCF	Non-dividend	R=10%;g=23.2%	R=9.27%;g=14.5%

According to Table 3, the stock price divided by the earnings per share is referred to as the PE ratio. In general, the lower a stock's PE ratio, the lower its market price is in relation to its profitability, which indicates a shorter payback period, a lesser investment risk, and a higher stock's investment worth. The stock price to net asset value per share ratio is referred to as the PB ratio. For the study of stock investments, the PB ratio can be utilized. Stocks having a low PB ratio often have a better investment value. A value investor would purchase it if either the PE ratio or the PB ratio were lower than 10 or 1 or 2. As a result, value investors will purchase shares of Changhong Meiling and Gree Electric.

Gree Electric, Haier Zhijia and Changhong Meiling all have very low dividend yields of less than 3 per cent, so income investors would not buy any of them.

PEG ratio is the price/earnings per share of a company divided by the Growth rate of the company. PEG less than 1 is the same as PE ratio below the Growth rate multiplied by 100. The idea

is to not overpay for a stock. In general, when the peg of a stock is less than 1 or 2, peg investors will buy it. So peg investors are going to buy these three stocks.

All of the three stocks' current ratios or 50 day moving averages are higher than 200 day moving average. So momentum investors would buy the three stocks. All of the three stocks have no Insider Buying. All three have stock buybacks, but all have very low stock buyback rates of less than 5%. There is no smart money in any of these three stocks. As for Discounted Cash Flow estimate, Haier Zhijia and Changhong Meiling's g is greater than R , the denominator of this formula is negative so DCF cannot be calculated. Gree did not pay a dividend in 2022.

According to the above analysis, Gree Electric Appliances and Haier Zhijia more investment value.

4. Conclusion

As an important pillar industry of the national economy, home appliances industry is closely related to people's life. In recent years, the output value of China's home appliance industry has maintained a steady growth, which has also driven the development of the transportation industry and the service industry, making important contributions to the healthy, orderly and stable development of the national economy. Moreover, with the continuous growth of residents' income and the change of investment concept, many residents take stocks as the target of financial investment.

It is found that Gree Electric, Haier Zhijia and Changhong Meiling have good investment value in China, especially Gree Electric and Haier Zhijia. This may be explained by the following facts. First of all, the traditional manufacturing industry has rich cultural deposits and accumulated rich experience in the long-term production and management process. Secondly, in the past development, these home appliance companies have accumulated some advantages in capital, management, brand and human resources. This study systematically studies the investment value of the three companies from the perspective of their development background and financial ratio analysis, including risk ratio, profitability ratio and market value ratio. Finally, the research results show that investors can make long-term investments in Gree Electric and Haier Zhijia, and enjoy the benefits brought by their long-term development.

Finally, the analysis of Gree Electric, Haier Zhijia and Changhong Meiling in this paper is only based on their development status and financial ratio, and their future development potential and potential ability need to be further studied.

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