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# Analysis of Stock Value Investment
## Taking Company L as an Example

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**ABSTRACT**
With the development of China's economy, the continuous development and improvement of the stock investment market have brought challenges to China's stock market. Therefore, stock investment guided by the value investment concept is more suitable for the current investment environment of China's stock market. Guided by the theory of stock value investment, this paper selects Company L, an outstanding enterprise in the beer industry, as the research object to explore its stock investment value.

***Keywords:*** *Beer industry; Investment value; Value evaluation.*

## 1. INTRODUCTION

After decades of development, Chinese beer industry is in a period of deep adjustment. Under the premise of industrial capacity reduction and limited space of sales increase, the increase of beer ton price and the control of cost end will become the new driving force of profit growth in the industry. As the growth of the consumer income and lifestyle changes caused by the growth in demand for quality, beer in the high-end market share has also been gradually improving. Therefore, the future development direction of Chinese beer industry will be "quality improvement" rather than "increment", and the upgrading of product structure will promote the overall price increase of the industry, so as to achieve the purpose of profit improvement[1]. In general, with the emergence of the industry turning point and the improvement of profits, the development of China's beer industry will enter a new stage.

However, during the decades of development of China's stock market, there were few firm practitioners of value investment, and the speculative atmosphere still occupied most of the market. Therefore, based on this study, we hope to guide investors to realize the importance of correctly grasping the value of stock investment under the guidance of value investment theory. Although current value investment theory is increasingly perfect, in the face of these theories is a relatively perfect market abroad[2]. While the scale of China's stock market is constantly expanding, and the rules and information disclosure system has been immaculate after years of development. However, compared with foreign markets, it still exists a lot of different places. Based on the research, the paper hopes to provide a theoretical basis for the majority of scholars and investors to study the alike industry or even the equivalent type of companies.

## 2. COMPANY BRIEF

Company L, originating in Qingdao, Shandong Province, was listed on Hong Kong Stock Exchange on July 15, 1993, becoming the first mainland company to be listed overseas. On August 27, 1993, Company L was listed on Shanghai Stock Exchange, becoming the first Chinese company to be listed on both sides at the same time. Company L is one of the world's top 500 brands and the most famous Chinese beer brand in the international market. Its products have been sold to more than 100 countries and regions around the world.

## 3. VALUATION ANALYSIS

### *3.1. Absolute value analysis*

#### *3.1.1. Free cash flow for the firm (FCFF)*

In this paper, the weighted average cost of capital is selected as the discount rate when the free cash flow discount model is used for estimation[3]. Therefore, the weighted average cost of capital, cost of equity capital and cost of debt capital are calculated respectively.

#### 3.1.1.1. Cost of debt capital

Company L's interest-bearing debts include short-term liabilities and long-term liabilities, but long-term liabilities account for a small proportion and can be ignored. Therefore, the one-year benchmark interest rate of short-term loans of the Central Bank is 4.35% as the debt capital cost ratio.

#### 3.1.1.2. Cost of equity capital

In equation (1), $K_e$ represents the cost of equity capital, $R_f$ represents the risk-free rate of return, $R_m$ represents the market rate of return, β represents market risk, and $R_m - R_f$ represents the risk premium.

This paper takes the coupon rate of five-year Treasury bonds issued by the Ministry of Finance in 2020 as the risk-free rate. The β value is determined by linear regression between the weekly return rate of Company L from 2016 to 2020 and the weekly return rate of CSI 300 market, and the β value is 0.8199. From equation (1), we can derive $K_e$=10.09%.

$$K_e = R_f + (R_m - R_f) \times \beta \tag{1}$$

#### 3.1.1.3. Weighted average cost of capital

The weighted average cost of capital *(WACC)* is a method of calculating a company's cost of capital according to the weighted average of all types of capital in total capital sources[4].

The income tax rate of Company L in 2019 is 25%, and the asset-liability ratio is calculated based on its average value of 43.66% in the past five years. Assume that these indicators do not change over the next five years. From equation (2), we can derive *WACC*=8.03%

$$WACC = K_E \frac{V_E}{V_D+V_E} + K_D(1 - T_C)\frac{V_D}{V_D+V_E} \tag{2}$$

#### 3.1.1.4. Stock valuation

Based on the estimated cash flow in the next five years and the weighted average cost of capital as the discount rate, the total discounted present value from 2020 to 2023 is 40.87 billion yuan according to equation (3), so the value of Company L per share can be calculated as 80.25 yuan.

$$PV = \sum_{t=1}^{n} \frac{FCFF_t}{(1+WACC)^t} + \frac{FCFF_{n+1}}{(WACC-g_n)(1+WACC)^n} \tag{3}$$

### 3.1.2. Dividend Discount Model (DDM)

It can be seen from the historical financial data of Company L that the dividend rate of the company from 2016 to 2020 is in the range of 30%-46%, so the five-year arithmetic average of 39.43% is used for prediction. Cash dividends are determined by the company's future earnings per share. The earnings per share of Company L in the past five years did nFree cash flow for the firm (FCFF)ot fluctuate greatly, so the average of 1.1002 was also used to calculate. Therefore, earnings per share for 39.43% of the cash dividend is 0.43 yuan.

Based on the zero-growth model of the dividend discount model for valuation, the weighted average cost of capital calculated above at the discount rate of 8.03%, the share price of Company L is 5.35 yuan. If the cash dividends of Company L show a steady growth trend in the future operation, the fixed growth model of the dividend discount model is used to evaluate the company, and the growth rate is assumed to be 4%. Then the share price of Company L is 52.39 yuan per share.

The results estimated by the zero-growth model and the fixed growth model are different, so the valuation results of the dividend discount model adopt the average of the two growth methods. The dividend discount model estimates that the share price of company L is 58.87 yuan per share.

## 3.2. Relative value analysis

### 3.2.1. Price-to-earnings ratio (PE)

The price-to-earnings ratio is the ratio for valuing a company that measures its current share price relative to its earnings per share (EPS). The price-to-earnings ratio is also sometimes known as the price multiple or the earnings multiple[5].

This paper studied the value valuation of the domestic stock market, so five companies listed in Shanghai and Shenzhen Stock Exchanges are selected for comparative valuation. And Company A, Company B, Company C and Company D are respectively taken as comparable companies. First calculate the PE ratio of five companies, including Company L, and then estimate the market value of Company L itself. The data selected in this article is the most recent annual report data, so the closing price of each company on December 28, 2021 is used as the stock price. The data of comparable companies are shown in Table 1.

**Table 1** PE ratio of Company L to comparable company

| Company | Total Share Capital (100 million shares) | Net Income per share (yuan) | PE |
|---|---|---|---|
| L | 13.56 | 1.05 | 33.11 |
| A | 28.19 | 0.06 | 88.11 |
| B | 22.13 | 0.17 | 25.88 |
| C | 4.84 | 0.83 | 37.02 |
| D | 2.50 | 0.07 | 85.00 |

From the above data, it can be calculated that the average PE ratio of comparable companies is 53.82 times, and then the net earnings per share of Company L is 1.053 times the average PE ratio of 53.82 times, and the price per share of Company L is 106.67 yuan.

### *3.2.2. Price-to-book method (PB)*

The price-to-book ratio method is similar to the price-to-earnings ratio method in the valuation process, but it is different in the selection of indicators. Therefore, comparable companies in the industry are still selected for valuation[6]. First, the price-to-book ratio of each company is calculated based on the stock price and book value per share, and then the industry average is calculated. Finally, the market value of Company L is calculated based on the mean and book value per share[7]. The data is still selected from the closing date of Company L on December 28, 2021, as showed in Table 2.

**Table 2** PB ratio of company L to comparable company

| Company | Total Share Capital (100 million shares) | Book value per share (yuan) | PB |
|---|---|---|---|
| L | 13.56 | 13.83 | 2.52 |
| A | 28.19 | 4.74 | 1.19 |
| B | 22.13 | 3.67 | 1.20 |
| C | 4.84 | 2.40 | 12.81 |
| D | 2.50 | 4.53 | 1.39 |

Based on the above data, the average PB of comparable companies in the travel industry is 3.8 times. Then, the book value of Company L per share is 23.83 yuan multiplied by 3.8 times the average PB, and the stock value of Company L is 102.56 yuan.

## 4. CONCLUSION

### *4.1. Valuation conclusion*

In this paper, the free cash flow for the firm, dividend discount model, price-earnings ratio method and price-to-book ratio method are respectively used to evaluate the market value of Company L. The results of each method are shown in the Table 3.(yuan per share)

**Table 3** Summary of company valuation results

| Methods | Estimated Value |
|---|---|
| Free cash flow for the firm (FCFF) | 80.25 |
| Dividend discount model (DDM) | 58.87 |
| Price-to-earnings ratio (PE) | 106.67 |
| Price-to-book method (PB) | 102.56 |

The stock market price on the valuation base date adopts the closing price of the last trading day of 2021. Comparing the absolute valuation results with the stock market price, the stock price of Company L will be overvalued at the end of 2021. However, by comparing the two relative valuation results with its stock market price, its stock market price at the end of 2021 will be undervalued. In order to ensure the accuracy of valuation, various valuation results should be considered comprehensively in valuation practice. Therefore, based on the valuation result of the free flow model, it has been calculated that 80.25 yuan is the lower limit of the intrinsic value of the stock. And 106.67 yuan is calculated as the upper limit of the specify value by using the PE ratio method. Meanwhile, the average value of the three valuation results is compared with the stock market price. The average value of the three valuation results in this paper is 96.49 yuan. It is also lower than the benchmark stock market price of 104 yuan, so it is considered that the stock market price of Company L is overvalued[8]. And the stock market price deviates from the valuation result.

Based on the analysis of the beer industry and the company level, the deviation between the valuation result and the stock market price in the base period will gradually change with the deepening of the adjustment process of the beer industry. The stock market price of Company L will eventually return to the valuation result. With the upgrading of the product structure, the optimization of production capacity and the control of short cost, the beer industry will move toward a high-end and high profit margin. As a leading enterprise in the industry, Company L's market share, manufacturing technology and various financial data are in the forefront of the industry. Therefore, it is reasonable to believe that its stock market price will return to the valuation result in the long run.

### *4.2. Investment advice*

Stock investment decision is a complicated process, which needs to consider many factors. The factors affecting stock value include internal and external factors[9]. Investors need to pay attention to the fundamentals, financial conditions and valuation of listed companies when making investment decisions. Qualitative investment decisions can be made by analyzing macro environment, industry development status and financial data such as cash flow, operating profit, operating capacity, profitability and solvency of the target company. Through stock valuation analysis, we can judge the real value of a stock, analyze whether its current stock price is in the state of overvaluation or undervaluation, and help investors make accurate investment decisions by quantitative analysis.

Company L currently ranks the first among domestic beer listed companies in China, and its market share is also ahead of other companies. Its unique manufacturing process, innovative development strategy and experienced management ensure Company L's leading position in the industry. After long-term development and operation, Company L has abundant cash flow, stable growth of operating income and profit, leading the industry in profitability and operating capacity, and constantly improving its solvency and growth capacity. Generally, Company L is making progress in its overall development. With the gradual recovery of the beer industry and the emergence of the industry inflection point, Company L still has considerable development prospects in the future based on the existing scale and brand advantages, as well as the continuous improvement of core competitiveness and sustainable development ability.

However, any investment is risky and rewarding, and changes in investment risk will directly affect the return on investment of investors[10]. So investors should pay attention to the potential investment risk in time. Combined with the analysis of this paper, it is considered that the potential risks of Company L's stock investment are mainly as follows:

First, the investment risk brought by the change of the macroeconomic environment. With the change of the macroeconomic environment and the introduction of relevant regulation and control policies, it may have a certain impact on the production, marketing and price of the beer industry.

Second, the investment risk brought by the change of market competition pattern. Although the competition pattern of the beer industry is stable at the present stage, vicious competition, merger and reorganization and the impact of foreign brands cannot be ruled out in the future, which is bound to affect the market pattern of the whole industry.

Thirdly, the investment risk brought by their own business changes. The debts paying ability and growth ability are strengthened. And its future development strategy, the change of the operation and management are likely to make its market share, operating income and cash flow data index downward situation.

Fourth, The investment risk brought by stock market fluctuation. China's stock market is not yet a mature market. The violent fluctuations of the stock market will directly affect the investment income of investors.

## AUTHORS' CONTRIBUTIONS

Huang Yue designed research, performed research, analyzed data, and wrote the paper.

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