Value Evaluation of White Wine Enterprise based on DCF Model: Taking Moutai Ltd. of Guizhou as an Example

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Abstract: As a leading enterprise in China's liquor industry, Kweichow Moutai's business performance and financial status have always been a hot issue of concern. Especially in recent years, its stock price fluctuation is obvious, has attracted the majority of investors to its investment enthusiasm. This paper will use the DCF free cash discount flow model to evaluate the enterprise value of Kweichow Moutai, and analyze the internal value of Kweichow Moutai Company (hereinafter referred to as Kweichow Moutai), to derive its internal value and compare it with the company's market value, so as to explore the feasibility of the DCF model to evaluate the liquor enterprises.

1 INTRODUCTION

Guizhou Moutai Limited by Share Ltd is a landmark enterprise in the Baijiu industry. It founded in 1999. The registered capital is RMB 185 million. 2001 Guizhou Maotai is listed on the Shanghai Stock Exchange. Its main business includes: Maotai liquor and series liquor. Production and sales of. Other businesses include: production of beverages, food and packaging materials. Production and sales; anti-counterfeiting technology development, research and development of information industry related products; hotel management, accommodation, catering, entertainment, bath and parking lot management services, etc. As of December 31, 2019, the controlling shares of Guizhou Maotai Liquor Co., Ltd. East is Guizhou Maotai distillery (Group) Co., Ltd. (actual holding proportion 58.00%), and the actual controller is the state owned assets supervision and Administration Committee of Guizhou Provincial People's government Meeting (Zhang, 2021).

Under the situation of China's continuous economic development, the Baijiu industry is in a good position. National income water. The continuous improvement of people's living standards, the further improvement of people's lives and the increase of consumers' disposable income. The long term will help improve the competitiveness of famous Baijiu enterprises and China's new economic structure. New opportunities brought Moutai to a high quality growth in the Baijiu industry. A new stage of the exhibition.

In 2020, COVID-19 led to a short run in Baijiu consumption demand, and manufacturers stopped. Production, franchised stores or other distributors also stop operation, so it is necessary to consider sudden changes. Only under the influence of economic development conditions or other uncertain factors can we maintain sustained economic growth (Zhou, 2021).

Moutai Group is involved in liquor, wine, health wine, real estate, hotel, etc., with Kweichow Moutai Co., Ltd. as the core enterprise. The main product is Kweichow Moutai. Kweichow Moutai has a long history and profound cultural connotation. It is a typical representative of Daqu sauce flavor liquor in China. It is in the leading position in China's liquor industry and has a great impact on the trend of the liquor industry (Wang, 2021).

In recent years, Moutai's stock price has fluctuated significantly and is at the commanding heights of the liquor industry, and its investment value has naturally attracted many investors. This paper will evaluate the value of Kweichow Moutai from the perspective of investors, which is conducive to grasping the future development trend of the liquor

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industry and helping more investors to make investment decisions.

2 THE DCF MODEL

2.1 Brief Introduction to the DCF Concept

The DCF cash flow discount model is to restore the expected cash flow of the enterprise for a specific period in the future to the present value. Only by ensuring its future profitability can an enterprise get a reasonable enterprise value, and its value can be recognized by the theoretical and practical circles. In this evaluation case, the historical cash flow of Kweichow Moutai in the past period of time was first analyzed (generally about ten years), so as to predict the free cash flow of enterprises for a future period of time. Then the discount rate is obtained through the risk-free reward rate, the risk reward rate and the beta coefficient, and finally the value of the enterprise is obtained through the discount model (Song, 2021).

2.2 Advantages and Disadvantages of DCF Model

Based on the company's own growth rate and expected future cash flow, it is less affected by market wrong sentiment; the valuation framework is rigorous, requires a large amount of information, a comprehensive perspective, and considers the long-term development of the company.

Parameter selection is difficult, and data estimation has strong subjectivity and uncertainty; the calculation is complex, and the accuracy of valuation is greatly affected by the input value (Li, 2018).

2.3 Specific Operation Steps

1) Estimate the enterprise free cash flow (FCFF)

Free Cash flow (FCFF) = (After-tax net profit + after-tax interest expense + depreciation and amortization + other non-cash expenses) - working capital addition - capital expenditure (1)

2) Determine the discount rate for the discount

Weighted average cost of capital (WACC) = (equity market price * expected return rate of equity + debt market price * (1-tax rate) * company debt cost) / / (equity market price + debt market price) = proportion of equity to market value * equity expected return rate + proportion of debt to market value * (1- tax rate) * company debt cost (2)

Expected return rate of equity: Capital asset pricing model (CAPM) is generally used to calculate.

Expected return on equity = risk-free interest rate + market risk * (market yield-risk-free interest rate) + adjustment factor (3)

Risk-free yield: generally replaced by Treasury yield, about 3% -4%;

Market yield: due to the unstable yield of A-share, the yield of US stocks with Chinese characteristics, about 10% -11%;

Market risk: the market risk of the company's industry is calculated by a comparable company in the same industry;

Adjustment factor: that is, the special risk of the enterprise, generally between 1% -5%.

Debt cost: generally determined according to the current debt yield of the enterprise, such as bank loan interest rate, bond interest rate, etc. (Lu, 2007).

3) Final value and cash flow discount value plus total value of the enterprise value

The final value calculation formula

TV=FCF2025 (1+g) / (WACC-g) (4)

in which, the sustainable annuity growth rate of the enterprise g is generally expressed by the growth rate of gross national product (GDP).

After the free cash flow discount, the cash flow discount value and the final value will be added total to get the enterprise value.

4) Calculate the equity value

On the basis of the enterprise value, (-) deducting interest-bearing liabilities, (+) plus excess assets, that is, to get the equity value of the enterprise (Wang, 2021).

3 DCF ANALYSIS OF KWEICHOW MOUTAI

3.1 Calculate the Free Cash Flow of Enterprises

Cash flow = EBITDA (1 income tax rate) increased depreciation increased amortization - increased working capital - capital expenditure. (5)

The income tax rate is calculated at 25%. According to the annual report, Table 1 of the balance sheet, profit statement and cash flow sheet of Kweichow Moutai over the years.

Table 1: Cash flow statement of data over the years.

Project year	2020	2019	2018	2017	2016
Cash flow	28757038300	21381278450	17099530261	9573181252	10575906002

As can be seen from the above table, the overall cash flow of Kweichow Moutai Co., Ltd. was an upward trend from 2016 to 2020, and only decreased in 2017 (Zhang, 2020). Therefore, according to the cash flow of the company in 2016-2020, the average growth rate of the enterprise is calculated as 28.66%, thus making the cash flow forecast for Kweichow Moutai Company.

3.2 Forecast the Enterprise's Cash Flow in the Next 5 Years

Table 2: Cash flow of the enterprise in the next five years.

Project	2021	2022	2023	2024	2025
Businesses forecast cash flow	36,997,638,408	47,599,660,073	61,239,790,877	78,788,629,602	101,366,253,308

3.3 The Calculation of the Discount Rate

The discount rate is calculated using a weighted average cost of capital:

$$WACC=(E/V)\times Re+(D/V)\times Rd\times(1-Tc) \quad (6)$$

Among them, Re is the share capital cost, the necessary return rate of investors; Rd is the debt cost; V=E + D is the market value of the enterprise; E / V is the percentage of share capital in total financing, capitalization ratio; D / V= debt percentage of total financing, asset-liability ratio; Tc is the enterprise tax rate.

The CAPM model was used to determine the cost of equity:

$$Re=Rf+\beta(Rm-Rf) \quad (7)$$

In practice, the yield of Treasury bonds is generally selected to replace the risk-free return rate Rf, and with the continuous operation as the accounting assumption, the yield of the 10-year Treasury bonds in 2021 is 3.15%.

Rm, select the CSI and Shenzhen 300 index, and query that the average risk reward rate of the evaluation base date (of June 3, 2021) is 6.42%. That is, the Rm is 6.42% (Shen, et al, 2017). The coefficient indicates the volatility of a certain enterprise relative to the whole industry, reflecting the price fluctuations of individual stocks to the entire stock market. According to GuoTai'an database, Kweichow Moutai Co., Ltd. has a coefficient of 2.17.

Therefore, it can be concluded that the equity cost of the enterprise Re is 10.25%, the debt cost takes the long-term loan interest rate in May 2021 is 4.65%, and the income tax rate is Rd is 3.49%. According to the 2021 enterprise annual report, the enterprise assets are 213,395,820,000 yuan, with the total liabilities 45,675,130,000 yuan, the equity total 167,720,680,000 yuan. The income tax rate is 25% and WACC 8.62%.

3.4 Forecast Enterprise Value

According to the confirmed parameters, Kweichow Moutai Co., Ltd. evaluates the enterprise value.

Table 3: Forecast enterprise value table.

Project	2021	2022	2023	2024	2025
Businesses forecast cash flow	36,997,638,408	47,599,660,073	6,123,979,0877	78,788,629,602	101,366,253,308
discount rate	8.62%	8.62%	8.62%	8.62%	8.62%
The value of the discount	34,061,534,160	40,344,492,880	47,786,398,850	56,601,032,410	67,041,604,880

Therefore, the total cash flow of Kweichow Moutai Co., Ltd. in the forecast period is 245,835.06 million yuan.

The sustainable annuity growth rate of enterprises is generally expressed by the growth rate of gross national product (GDP). In order to make the research data more accurate, this paper selects the driving percentage of the secondary industry from 2016 to 2019, and 2.50%, 2.40%, 2.30% from 2016 to 2019 2.20%. Its arithmetic average is 2.35%, so this article adopts 2.35% is the sustainable annuity growth rate of Kweichow Moutai Co., Ltd.

Table 4: Enterprise value.

Subject	
Follow-up final value	RMB 1,654,678.79 million yuan
Discount rate	8.62%
Current value of the final value of the subsequent period	1,094,371.33 million yuan
Enterprise value	1,900,513.85 million yuan

The subsequent final value of Kweichow Moutai Co., Ltd. TV=FCF2025 (1+g)/(WACC-g) = 1,654,678.790 million, obtained in Table 4.

According to the data of the benchmark date of Oriental Wealth Network (June 3, 2021), the market value of Kweichow Moutai Co., Ltd. is 2.5 trillion yuan, the predicted value of DCF model is 1.9 trillion yuan, and the error with the market value of Kweichow Moutai Co., Ltd. is 24%.

4 CONCLUSIONS

This paper uses the DCF model to evaluate the enterprise value of Kweichow Moutai Co. The study found that the cash flow of Kweichow Moutai Co., Ltd. has been positive and showing an increasing momentum in recent years, indicating that this shows that the business activities of Kweichow Moutai Co., Ltd. have actually generated capital value increase (intrinsic value), and the ability of value-increase is continuously improving. Although there are some differences between the market value of Kweichow Moutai Co., Ltd. and the calculated theoretical value, there is an error rate of 24%, and the calculated results are slightly lower than the market value. Compared with the traditional value evaluation model, the DCF model has more research value and research space, which is relatively stable for cash flow. Enterprises with high predictability have strong applicability. But for companies with frequent and volatile cash flows, its feasibility will reduce (Huang, et al, 2021). As an old enterprise and Moutai and a leading enterprise in the liquor industry, Kweichow Maotai Co., Ltd. is in line with the hypothetical premise of DCF model evaluation. Therefore, the DCF model can be used in the enterprise evaluation of liquor enterprises.

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