

China Baoan Group Co., Ltd. Equity Value Assessment

Jinyu Tang^{1, a, *}

¹School of Accounting, Shanxi University of Finance and Economics, Taiyuan, 030000, China

^a1175316372@qq.com

*Corresponding author

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Abstract: Based on the two-stage cash flow growth model, this article takes China Baoan Group Co., Ltd. (hereinafter referred to as China Security) as the research object, and evaluates its equity value by constructing a valuation model. The results show that the company's equity valuation is 889,029.19 million yuan. This paper believes that in the construction of the valuation model, the estimation of the beta coefficient of the discount rate and the prediction of cash flow are the key and difficult points. How to make a scientific and reasonable estimate is very important for the evaluation of the enterprise value.

1. Introduction

With the vigorous development of China's capital market, capital operations such as mergers and acquisitions are becoming more and more frequent. There are many factors that affect the success of mergers and acquisitions. The key factor is the evaluation of the value of the merged company. This is related to the respective demands and interests of the merger and acquisition parties. No. Therefore, how to choose the appropriate evaluation method to scientifically and rationally evaluate the target enterprise is particularly important.

2. Introduction to Enterprise Value Assessment Methods

There are three common methods of enterprise value assessment: cost method, market method and income method.

2.1 Cost method

The cost method is based on the company's balance sheet, and the company's valuation method is determined by reasonably evaluating the company's asset value and liabilities. The disadvantage is that it does not take into account the value of off-balance sheet intangible assets (especially goodwill) and the company's future sustainability. The value of business.

2.2 Market Law

The market method is to compare the evaluated company with the same or similar companies on the market to determine the value of the evaluated company. The disadvantage is that the prerequisites used are too stringent, and it is usually difficult to find and evaluate the company on the open market. The same or similar enterprises.

2.3 Income method

The basic principle of the income method is the discount theory, that is, the value of an asset is equal to the present value of future income. As one of the important methods of the income method, the cash flow method determines the value of the enterprise by discounting the future cash flow of the enterprise. It does not have the strict use conditions of the market law, but can also treat the enterprise as a whole, and consider the value of continuing operations in the future, it could also overcome the shortcomings of the two methods described above, and therefore, by gradually developed into the most perfect in theory, the most widely used business valuation methods. This

article selects the cash flow method to evaluate the value of China Baoan Group .

3. Valuation model

3.1 Classification of discounted cash flow models

When using the cash flow model for enterprise value assessment, according to the difference in cash flow, it can be divided into dividend cash flow, equity cash flow and physical cash flow. Combined with the respective growth characteristics of the enterprise, the above three cash flows are applied to the continued model and two-stage growth model.

Under the same model, if the same data assumptions are used, the evaluation results of different cash flows are the same. However, considering that there are many factors that affect the dividend distribution policy, and not every company will necessarily pay dividends, in practice, companies rarely use dividend cash flow for evaluation, and most of them use equity cash flow or physical cash flow. Since the M&A transactions of listed companies in my country are mostly equity transactions, equity cash flow is more commonly used.

3.2 Selection of sample events and valuation models

(1)Sample events.China Baoan Group Co., Ltd. (certificate coupon code : 000009)) is a comprehensive joint-stock company, established in 1983 Nian 7 months, the main business is high-tech, real estate and bio-pharmaceutical industry. China Baoan (formerly known as Baoan County United Investment Company, is the first joint-stock company in New China . The company is mainly engaged in real estate, industry, commerce, and securities investment. Baoan Group has always adhered to the principle of "taking real estate as the leader and industry as the basis to Financial securities, business and trade are the pillars, and actively develop culture, agriculture and other industries. The operating policy has formed a strategic layout of "one center, nine headquarters, nine industry headquarters", which is currently the largest stock listed company in Shenzhen. One, it was rated as the eighth place in Shenzhen's 1994 comprehensive enterprise group with the strongest comprehensive strength, and ranked first in the construction real estate industry for the first time in the " Top 100 Comprehensive Economic Strength Companies of Chinese Stock Listed Companies " .

June 25, 1991, Baoan Group's outstanding shares listed on the Shenzhen Stock Exchange-generation code: 000009, the stock short: Shen Baoan A. May 16, 2008, changed to China Baoan. As of May 16, 2008, Baoan Group's total share capital of 103,881 shares, the total assets of 60 billion yuan. As one of the 70 and 30 large enterprise groups identified as the key development in Guangdong Province and Shenzhen City and the highest enterprise category in Shenzhen assessed by the Shenzhen Municipal Government: a first-class enterprise, Baoan Group adheres to industrial management, capital management and virtual management Combined, build a multi-level financial support system, take the value creation as the guide, and optimize and innovate as a means, and have embarked on a path of good, fast and sustainable growth with Baoan characteristics. The company owns more than 20 listed companies Ma Yinglong Pharmaceutical and wholly-owned enterprises and holding companies. Domestic commerce; material supply and marketing (excluding franchise, special control, monopoly commodities) ; investment in the establishment of industry , the introduction of three to one supplement; import and export trade business (in accordance with the provisions of the Shenzhen Trade Administration Certification No. 094) ; real estate development, Warehousing, transportation, hotels and other service industries, cultural industries, pharmaceutical production and sales; operating lithium manganate cathodes, modified graphite materials, import and export, etc.

(2)Selection of valuation model. China Security 20 17 -201 9 Financial data for the year show that China Baoan currently at a relatively high speed of growth cycle, two-stage growth model is useful, considering the sample event involving share transfer, the existing equity transfer price, and therefore, we finally selected equity cash The two-stage flow growth model evaluates the value of equity and directly estimates the value of each share for evaluation.

4. Value evaluation of China Baoan

The use of two-stage growth equity cash flow model for the Chinese security when valuation, mainly related to pre- estimate the measurement period, the discount rate and cash flow of equity.

4.1 Estimate during the forecast period

In the two-stage growth model, companies need to divide the forecast period into a detailed forecast period and a subsequent period. During the detailed forecast period, it is generally appropriate to make a detailed forecast of the target company's cash flow every year. It is generally suitable for 5-7 years. In special cases, it can be appropriately extended, but it should not exceed 10 years. The subsequent period is also called the perpetual period, which means that the enterprise enters a stable state and the growth rate is relatively stable.

Because as of this writing, China Baoan 2019 Financial data for the year have been announced, therefore, the 2020 -year forecast period as a starting point in detail.

4.2 Estimation of discount rate

The equity cash flow model uses equity capital cost as the discount rate. The equity capital cost refers to the cost paid by the company through the issuance of common stock to raise funds. At present, among the various methods for measuring the cost of equity assets, the most widely used is the capital asset pricing model (CAPM).

The formula for calculating the cost of equity capital is $R_e = R_f + \beta \times (R_m - R_f)$

Where R_f is the risk-free rate of return, β is the beta of the stock, R_m is the average risk stock rate of return, $(R_m - R_f)$ is the market risk premium, and $\beta \times (R_m - R_f)$ is the Stock risk premium.

(1)Risk-free rate of return. The risk-free rate of return refers to the rate of return on investing in risk-free securities, but there is no risk-free security in reality. Therefore, the nominal maturity yield of long-term government bonds is usually selected as the risk-free rate of return in practice. The investment income and repayment period of the bonds have been determined, and there is almost no risk of default. However, due to the outbreak of this year, resulting in China's economic slowdown, although gradually recovering, but Treasury interest rates during this period are not representative and therefore in on China Baoan time valuation, this paper choose our 2019 Nian bottom According to the data, referring to the average level of medium- and long-term national bond interest rates issued by the country in the past five years (see Table 4-2), the risk-free rate of return r_f is approximated according to the average level of national bond interest rates over ten years , that is, $r_f=3.79%$, as no Risk reward rate.

(2)Market expected rate of return. It is generally believed that the fluctuation of the stock index can reflect the overall market volatility, and the long-term average return of the index can reflect the average return rate expected by the market. By the Shanghai Composite Index since 1992 Nian 5 Yue 21 after the date of full liberalization of the share price, free auction to 2019 Nian 12 Yue 31 index between the date average closing rate of return is calculated on, obtain market expected rate of return of approximately, namely: $R_m = 10.05%$.

(3)Beta coefficient. The beta coefficient, which is one of the difficulties and key points of valuation, is used to measure the volatility of an investment security or investment security portfolio relative to the entire market. The β coefficient of a certain stock reflects the degree of relevance and correlation between the change in the stock's return and the return on the entire stock market. The β coefficient is positively correlated positively, and negative is negatively correlated. The larger the absolute value of the β coefficient, the greater the degree of correlation, and vice versa.

The estimation of the β coefficient is affected by many factors, such as the time span of the sample, the choice of market index, and the frequency of return selection. When determining the time span of the sample, according to the conclusion of "Beta Stability Research and Its Prediction" (Liu Zhonghai, Ge Xinyuan, 2005) : On the premise of ensuring good β stability and accuracy, the shortest possible It is more appropriate to estimate the β coefficient during the data period . 3 years is more appropriate; the selection of the market index. In theory, the market portfolio in the capital

asset pricing model (CAPM) should include all assets (including unlisted assets and real estate, etc.). Therefore, strictly speaking, there is no market index that can accurately respond, but from the practical application, generally use the stock market open index instead; When determining the sample data of the return rate, the frequency The selection can be daily, weekly, monthly, quarterly, semi-annual, and annual rate of return. Theoretically, the shorter the interval, the more accurate the estimated β coefficient. Therefore, in practice, the day or week is the choice the frequency is more appropriate.

In summary, in to China Baoan of β Coefficient that valuation, select China Baoan 2015-2018 in a total of 3 closing price year (Source: huge influx of information network) and the Shanghai and Shenzhen 300 Index 2015-2018 in a total of 3 years 'S daily closing index (data source: Netease Quotes Network), which calculates the daily yields of China Security and the Shanghai and Shenzhen 300 Index respectively, and the regression equation is obtained by univariate linear regression: $y = 0.9847 x - 0.0001$. Wherein, the X- factor of 0.9847 is the Chinese security of β coefficient.

(4) Cost of equity capital. According to the CAPM model: $R_e = R_f + \beta \times (R_m - R_f) = 3.79\% + 0.9847 \times (10.05\% - 3.79\%)$. By the above formula can be calculated constant state shares equity capital cost $R \& It E = 9.95\%$, corresponding to which discount rate also was 9.95%.

4.3 Estimation of equity cash flow

The estimation of cash flow is the focus and difficulty of enterprise value assessment. It is derived based on the following basic formula of cash flow: Physical cash flow = equity cash flow + debt cash flow. Based on this, a basic model of equity cash flow prediction can be constructed, combined with the company's financial data to calculate the company's equity cash flow, using a two-stage growth model, using the equity capital cost as a discount rate to estimate the company's equity value.

(1) Construct the basic model of equity cash flow forecast. Equity cash flow = (operating income - operating costs - sales and management expenses - operating profit income tax - increase in net operating assets) - (after-tax interest expense - increase in net liabilities)

(2) Forecast related financial ratios. Forecast China Baoan time-related financial ratios, the main use of China Baoan 2017 -2019 Financial data for the year, averaged. According to the information disclosed by China Baoan's recent annual report, China Security first obtained the high-tech certification in 2011 and passed the high-tech certification review twice in a row. It is valid until 2018, during which the average corporate income tax rate is 29.8%. Therefore, assume In the future, China's security guards can continue to maintain the identification of high-tech enterprises, and the future income tax rate of enterprises is predicted to be 29.8%.

Taking into account the high growth business to a certain stage, the industry is limited room for growth factors and their own, generally can not long maintain rapid growth , therefore, the company assumed 202 5 years into the stable growth period, operating income growth rate was maintained at 3% , combined with the above-mentioned financial ratios predictive value (Note: the base period 2019 operating income was 1200437.92 million), can calculate the 2018-2023 equity cash flows for the year constant state shares .

Through the above data, the entity's physical cash flow can be obtained. The entity's physical cash flow table = debt flow + equity flow. Therefore, the stock flow of the enterprise is calculated based on the physical cash flow and the debt flow.

4.4 Enterprise Value Assessment

The key to calculating the value of an enterprise based on the discounted cash flow model is to obtain the corresponding cash flow, so that the enterprise value can be calculated at a discount. In the above, we have calculated the equity cash flow of the company, and then we will estimate the equity value of the company accordingly.

In the second growth phase, we assume that companies with a 3% growth rate of sustainable growth, sustainable growth in accordance with the principle into discounting, calculated 202 5 year-end cash flow 991,134.76 million. The discount rate was 9.95%, thus cash flows discounted to

present value are summed to obtain the equity valuation of companies is 889, 029.19 million.

5. Conclusion

Through the analysis of the above cases, it can be seen that when using the cash flow discount model to evaluate the value of the enterprise, the future development and profitability of the enterprise are fully taken into consideration. More attention is paid to the core business of the enterprise rather than the accidental operation income, which can guide the enterprise pay more attention to long-term development, and the decisions made can give priority to the long-term interests of the enterprise, so as to maximize the realization of enterprise value. However, the use of the prediction method involves many parameters in the model build in , often greatly influenced by factors of accounting information quality level and valuation of personnel experience, knowledge, therefore, we want to discounted cash flow valuation model in the enterprise To play a greater role in China, it is also necessary to continuously improve the professionalism of valuers, further strengthen the supervision of the capital market, and improve the accuracy of accounting information disclosure.

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