

Finance Sample Assignment

Marriott Corporation: The Cost of Capital

Key Profile of the company

- Marriott's operation was focused in three main business streams: Lodging, Restaurants and Contract Services. In terms of sales turnover, contract services division had the highest contribution into the company's overall sales performance in 1987 (46%), followed by lodging (41%) and restaurant divisions (13%). In terms of profit generation, lodging services accounted for 51% of company's total profit comparing to 33% and 16% generated by contract services and restaurant services.
- The company had been remaining high growth rate (sales growth rate was 24% in 1987 and EPS doubled for the past 4 years). The operating strategy was to remain premier growth company, focusing on 3 business lines.
- Divisional hurdle rate was significant to the company. If the hurdle rate increases by 1%, the present value of project inflow will decrease by 1%.
- Marriott's financial strategy included: managing rather than own hotel assets, investing in projects that increase shareholder value, optimizing the use of debt in the capital structure and repurchasing undervalued shares.
- Marriott's unsecured debt was A-rated in April 1988.
- The spread between the debt rate above the government bond rate was different in each division. Marriott used long term debt for lodging because hotel had long useful lives and it used short term debt as the cost of debt for its restaurant and contract services divisions as those assets had shorter useful lives.
- Marriott used CAPM to estimate cost of equity

Marriott Corporation: The cost of capital - What is the weighted average cost of capital for Marriott Corporation? Are the four components of Marriott's financial strategy consistent with its growth objective?

Marriott Corporation is an international company who's the growth over the year has been more than satisfactory.

In 1987, Marriott's sales grew up by 24% and its return on equity stood at 22%. Moreover the sales and earnings pr share has doubled over the previous year. The company operates in three divisions: lodging, contract services and restaurants which represents 41%, 46% and 13% of sales in 1987 respectively. Marriott is determined to develop and to enhance its position in each division. This main goal contains 3 others more detailed components:

- To become the most profitable company.
- To be the preferred employer.
- To be the preferred provider.

In order to achieve its goal, the managers of Marriott have developed a financial strategy with 4 main decisions.

1. Manage rather than own hotel assets. - The first measure is simply to be more involved in the management of their hotel. It means for the company to have more control on how the money is used but also to have more responsibilities concerning the employees and especially the customers. The company is able to monitor and control its resources and expenses. By having more control, Marriott can try to improve its efficiency and its profitability, for example, by searching the best suppliers with long term contracts for what the company really needs and it could decrease useless expenses.

There is another benefit if Marriott performs well on increasing its profit; Marriott will be able on the one hand to increase the salary of their employees and on the other hand to improve the quality of services provided to the customers.

2. Invest in projects that increase shareholders values - This object is one of the financial goals to invest properly. Marriott used discounted cash flow techniques to evaluate potential investment. It is beneficial because it is considered present time value. Projects which increase shareholder value could be formed with benchmark hurdle rates, the company can ensure a return on projects which results in profitable and competitive advantage.

3. Optimize the use of debt in the capital structure - Marriott invests a lot of money in long term assets that's why it is really necessary for the company to maximize and optimize its debt. And the company has an A rating. It means that Marriott is able to borrow an important amount of money to invest and it could be heavily indebted. Therefore, it is really important to optimize the debt level.

4. Repurchased undervalued shares - This could not only reinvest money back into the corporation but also have a high potential for future profits. The corporation calculates a « warranted equity value » to deal with its common shares instead of taking into consideration the day-to-day market price.

By proceeding this way, it gives Marriott the possibility to get an important amount of money that could be reinvested. The company can also increase its profit by selling its common shares that it judges undervalued according to its way to determine it. Whatever the use of this money, it could be a lot of potential money back. Marriott has purchased in 1987 for 429 Million of shares. A last point is that it allows Marriott not to be dependent on the market price.

How does Marriott use its estimate of its cost of capital? Does it make sense?

Marriott measured the opportunity cost of capital for investments of similar risk using the weighted average cost of capital (WACC). To decide on the future firm investments, we need to analyse the financial structure.

A firm's WACC is the overall required return on the firm as a whole and, as such, it is often used internally by company directors to determine the economic feasibility of expansionary opportunities and mergers. It is the appropriate discount rate to use for cash flows with risk that is similar to that of the overall firm.

To determine the opportunity cost of capital, Marriott required three inputs: debt capacity, debt cost, and equity cost consistent with the amount of debt. The cost of capital depends on

each division.

In fact the evaluation of the WACC is an appropriate tool to calculate the cost of capital for the corporation as a whole and for each division.

The cost of equity - One of the two major component of WACC is the cost of equity. The cost of equity model takes into account three values which we must calculate - a risk-free rate (rf), risk premium rate (expected market return - rf), and Beta Value. Before doing the calculations, we will justify our choices. We based it on the "Stocks, Bonds, Bills and Inflation" (SBBI). This workmanship is a standard reference source for business appraisers. It has been published annually since 1983.

The beta value - As it is said in the case, we already know the equity beta (0,97). But the capital structure (leverage) affects beta estimates. In order to eliminate the effect of leverage, we will calculate the asset beta, which reflects the sensitivity of the firm's assets abstracting from capital structure. That is why we have to convert the equity beta into the asset beta. Then we can calculate the equity beta without the leverage effect. To calculate the asset beta, we need the current debt value. The ratio D/V for the company is set at 41% so we can find the ratio E/V is set at 59%. It comes from the exhibit 3 which says that the market leverage is the book value of debt divided by the sum of the book value of debt plus the market value of equity.

- Equity beta = 0,97
- Equity value = 59%
- Asset beta= 59% x 0,97=0,57

Now, we can reintroduce the effect of leverage in the equity beta using the asset beta. In order to do that, we need the target debt value which is provided in table A (60%).

- Equity beta = asset beta x (V / E)
- Asset beta = 0,57
- Target debt value = 60%
- So we can say that E/V = 40% and V / E = 1/40%
- Equity Beta=0,57 x (1/ 40%)=1,43

What Time Period to Use for the expected market return?

A business appraiser must decide what time period to use in determining the rate of return on public company stocks. The SBBI authors favor using the period from 1926 to present because that period includes all of the types of events that affect stock prices. It includes wars, depression and inflationary periods.

Therefore we have chosen the average between 1926 and 1987 for the market return in order to calculate the premium.

Which average (geometric or arithmetic) to use for the expected market return?

SBBI shows rate of return data based on both arithmetic and geometric means. The appraiser must decide which mean to use. The arithmetic mean is a simple average of the

rates of return for each year. The geometric mean is based on compounding and is generally less than the arithmetic mean. The authors recommend using the arithmetic mean because investors tend to use arithmetic means in forming their expectations of future returns. Therefore we have chosen to use the arithmetic average, but both are possible.

Finally which rate to use? - The rate represents the overall return on the market. So we take it in exhibit 4. It is the arithmetic average, since 1926, of the S&P 500 Composite returns, that is 12,01%

The risk free rate - The risk-free rate, r_f , is defined as the expected return on an investment that in theory carries no risk whatsoever. We get this rate from fixed income markets, so we took the longest term risk free rate which is the best from the table B, it means 8,95%.

The cost of equity calculation

- Cost of equity = $R_f + \beta \times (R_m - R_f)$
- Cost of equity = $8,95 + 1,43 \times (12,01 - 8,95) = 13,33$