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Report on Marriot Case

Are the four components of Marriott's financial strategy consistent with its growth objective?

- 1) **Manage rather than own.** Consistent with growth strategy. In this way, Marriot attracts additional capital, which gives an opportunity to invest more in the future, share some risks with limited partners. Partnership may be also a good way of saving on taxes.
- 2) **Invest in projects that increase Shareholder value.** Consistent with growth. Positive NPV projects increase SH value.
- 3) **Optimizing capital structure.** Consistent with growth. Optimal capital structure generally should lead to a higher shareholder value. It also gives a good way to control default risk by aiming at certain coverage ratio.
- 4) **Repurchase of undervalued assets.** Hard to say – generally, NO! Generally, it can lead to a lower growth, because company uses its free funds to buy back shares and therefore will underinvest in NPV positive projects (that leads to lower growth).¹ We should be very clear why shares are going down — it may be a result of a very bad investment decisions that led to losses. In this case, buybacks will lead to overpricing of Marriot's shares. This strategy implies that Marriot is smarter than the market is. But that's simply impossible in the long run. Additional argument against from the position of shareholders — buybacks, if shares are temporary undervalued, than it might be a cheap way of paying dividends to shareholders.

¹ It's also is very unreasonable from the position of diversification. It will be better for shareholders to buy a well diversified portfolio of stock, rather buyback shares. And it is very questionable that buybacks are more profitable than projects. There even might be a circle – buybacks leads to lower growth in the future and even more lower prices, that will require even more aggressive buybacks. So, buybacks may imply signaling and communication issues and inconsistency.

2. How does Marriott use its estimate of its cost of capital? Does this make sense?

Cost of Debt:

- ◆ **Separate Divisions.** Reasonable. The risk profiles of different division are different, so different hurdle rates should be used.
- ◆ **Risk free rate.** Reasonable. Using UST² and matching investment horizon of cash flows³ with a duration of bonds is correct, because in this case UST rates are free from interest change risk.
- ◆ **Debt structure: floating vs. fixed.** Idea seems reasonable, but hard to evaluate without additional details.
- ◆ **Spreads:** Using spreads for rated debt with UST rates — reasonable.
- ◆ **Target market D/E ratio:** reasonable — we estimate WACC and cost of debt for the future cash flows.

Cost of Equity:

- ◆ **They use CAPM:** Reasonable
- ◆ **Uniform beta:** not reasonable – to calculate a cost of equity for a division we need a beta that reflects the business risk of that division. Cannot use uniform.

3. Compute the WACC of Marriott Corporation: I would describe the method Marriot was using — computing WACC for a division and than aggregating into WACC of the whole company using sales as weights. The other way is much simpler – use standard WACC formula , using company's beta, spread on bonds, risk free rates that matched the investment horizon of the whole company, etc.

a. **Risk free rate and risk premium.** Should be calculated for each division separately:

- ◆ Match risk free rate with the investment horizon that characterize division or projects in division
- ◆ We should use the same UST rates as risk free itself and risk free in risk premium
- ◆ Risk free rate itself should be taken an average (moving) for 52 weeks (year) in order to remove random factors and fluctuations.
- ◆ Market risk premium might be declining in time, that means that there is a trade-off between statistical reliability (take more years) and relevance (take less years as risk premium changes in time). I would suggest that 20-30 years of data is a good balance – enough precise estimate and more reliable. We can also use ad hoc market risk premiums, which are nowadays mainly used by consultancy companies like McKinsey&Co, etc. As for the choice between arithmetic and geometric averages — tough choice, but arithmetic is the best estimate of returns (under assumption that they are normally distributed (i.i.d.)).

² UST – US Treasury.

³ We assume that investment horizon of cash flows is equivalent to life time of assets as it's interpreted in the case.

b. **Cost of debt:**

- ◆ Estimate for separate divisions as different companies.
- ◆ Match the investment horizon that characterize division or it's projects with the duration of UST bonds (risk free rate).
- ◆ Spread on UST should reflect the risk of a division. For this we can, for example, use different fundamentals of a division (e.g., interest coverage) to estimate the expected spread the investors will demand for risk of a division.
- ◆

4. Calculate the hurdle rate for the lodging division.

- ◆ Tax=44% - assumption which we make, because it's not clear what is tax rates. 44% - tax rate from the financial statement.
- ◆ D/E equal to value target D/E=74% (Table B)
- ◆ Risk free=8.39%⁴
- ◆ Spread for lodging business – 1,10% (Table A)
- ◆ Beta – we take company's unlevered beta as a proxy as there is no comparable company that had only lodging business:

$$0.97 = \beta_{unl} * (1 + \frac{D}{E}(1 - t)) = \beta_{unl}(1 + 0,60 * (1 - 0.44)) \Rightarrow \beta_{unl} = 0.72$$

- ◆ MRP=7.88% average of 1951-1988 (Exhibit 5):

$$MRP = \frac{7.92 - 5.97 + 5 * (-2.36) + 12.86 * 5 + 25 * 9.48}{1 + 1 + 5 + 5 + 25} = 7.88\%$$

$$WACC = 0.26 * r_e + 0.74 * (1 - 0.44) * r_d$$

$$r_e = r_f + \beta_{unl}(1 + \frac{D}{E}(1 - t))MRP = 16.4\%$$

$$r_d = r_f + spread = 8.39\% + 1.10\% = 9.49\%$$

$$WACC = 0.26 * r_e + 0.74 * (1 - 0.44) * r_d = 4.26 + 3.93 = 8.2\%$$

5. Comment on the firm's use of hurdle rates. Very good approach, reasonable. However, there are some disadvantages that were explained in section 2: using company's beta for WACC of each division.

⁴ Calculated as average yield to YTM 10 years. For simplicity — 52 weeks from 1987-01-01 1988-01-01. data taken from Federal Reserve Saint- Louis: <http://research.stlouisfed.org/fred2/series/DGS10/downloaddata?cid=115>