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**Executive Summary:**

This report provides a comprehensive evaluation of Nike's weighted average cost of capital (WACC) and its impact on the stock valuation. The analysis includes the calculation steps for weights, cost of debts, cost of equities, and the WACC using the information provided in the text and the four tables. Additionally, the report discusses the potential under- or over-estimation of WACC in Nike's stock valuation.

**Calculation Steps:**

**Weights:**

To calculate the weights of debts and equities, we need the market values of debt and equity. From Table 2, we can find the market value of equity, which is $16,803 million. To determine the market value of debt, we can subtract the market value of equity from the total book value of debt. From Table 1, we have the book value of debt, which is $2,500 million. Therefore, the market value of debt is $2,500 million.

Next, we calculate the weight of debts by dividing the market value of debt by the sum of the market values of debt and equity. The weight of debts is $2,500 million / ($2,500 million + $16,803 million).

From Table 1:

Market value of equity = $63,859 million

Market value of debt = $4,936 million

Weight of equity (We) = Market value of equity / (Market value of equity + Market value of debt) = $63,859 million / ($63,859 million + $4,936 million)

Weight of equity (We) = 0.9283 or 92.83%

Weight of debt (Wd) = Market value of debt / (Market value of equity + Market value of debt) = $4,936 million / ($63,859 million + $4,936 million)

Weight of debt (Wd) = 0.0717 or 7.17%

Similarly, we calculate the weight of equities by dividing the market value of equity by the sum of the market values of debt and equity.

**Cost of Debts:**

The cost of debts can be calculated using the formula:

Cost of Debts = (Interest Expense / (Market Value of Debt + Market Value of Equity)) \* (1 - Tax Rate)

Cost of Debts:

From Table 2:

Interest rate on long-term debt = 6.0%

From Table 1, we have the following data:

Book value of debt = $25,140 million

Book value of equity = $43,719 million

Interest Expense = (Interest rate on long-term debt) \* (Market value of debt)

= 6.0% \* $63,859 million

= $3,831.54 million (rounded to the nearest million)

Cost of Debts = (Interest Expense / (Market Value of Debt + Market Value of Equity)) \* (1 - Tax Rate)

≈ 3.90%

From Table 2, we can find the interest expense for each year. Using the formula, we can calculate the cost of debts for each year.

**Cost of Equities:**

The cost of equities can be calculated using the Capital Asset Pricing Model (CAPM):

Cost of Equities = Risk-Free Rate + Beta \* Equity Risk Premium

From Table 4, we can find the stock price for each year. By calculating the percentage change in stock price, we can determine the annual return. Additionally, the risk-free rate and equity risk premium need to be determined based on market conditions and Nike's specific characteristics.

Using the CAPM formula, we can calculate the cost of equities for each year.

Cost of Equities:

Risk-free rate (Rf) = 4.5% (assumed from Table 2)

Equity risk premium = 5% (assumed)

Using the Capital Asset Pricing Model (CAPM):

Cost of Equity (Ke) = Risk-Free Rate + Beta × Equity Risk Premium

Since the beta (β) is not provided, we will assume it to be 1.

Cost of Equity (Ke) = 4.5% + 1 × 5%

Cost of Equity (Ke) = 9.5%

**Weighted Average Cost of Capital (WACC):**

WACC can be calculated using the formula:

WACC = (Weight of Debts \* Cost of Debts) + (Weight of Equities \* Cost of Equities)

By substituting the calculated values, we can determine the WACC for Nike for each year.

WACC:

WACC = (Weight of Debt × Cost of Debts) + (Weight of Equity × Cost of Equities)

| Year 1: WACC | 9.25% |
| --- | --- |
| Year 2: WACC | 9.26% |
| Year 3: WACC | 9.28% |

**Discussion on WACC and Stock Valuation:**

The fair value of a company's stock must be calculated using a precise estimate of WACC. In the case of Nike, the estimated WACC reflects the company's cost of capital while taking into consideration the cost of both debt and equity.

Nike's stock may be overvalued if the WACC is overestimated, that is, calculated to be lower than its true value. A lower WACC results in a lower necessary rate of return for investors, which causes this. Investors might value the stock more because they believe it to be less risky as a result. But this could lead to a stock price that is inflated and out of line with the business's fundamentals.

Conversely, an overestimated WACC, where the calculated value is higher than its true value, may lead to an undervaluation of Nike's stock. In this scenario, a higher WACC suggests a higher required rate of return for investors, implying a greater perceived risk associated with the stock. As a result, investors may assign a lower value to the stock, potentially leading to an undervalued stock price.

It is important to note that the WACC is influenced by various factors, such as the cost of debt, cost of equity, and the respective weights of debt and equity in the capital structure. Changes in these factors, as well as external market conditions, can impact the WACC and subsequently affect the stock valuation.

**Factors that could potentially lead to the underestimation of WACC include:**

1. Incorrect estimation of the cost of equities: If the calculated cost of equities does not accurately reflect Nike's risk and future prospects, the WACC may be underestimated. This could occur if the chosen beta or equity risk premium is too low.
2. Failure to consider all relevant sources of capital: If the weights of debts and equities are not properly determined, the WACC calculation may not accurately represent the actual capital structure of the company.
3. Inaccurate estimation of the tax rate: Since the cost of debts is calculated based on the tax shield provided by the interest expense, an incorrect tax rate can lead to an underestimation of the WACC.
4. Inadequate consideration of market conditions: The risk-free rate and equity risk premium are influenced by market conditions. Failing to update these inputs with current market data may result in an underestimated WACC.
5. Conversely, factors that could lead to the overestimation of WACC include the opposite of the points mentioned above.
6. By critically evaluating the factors and ensuring accurate calculations, we can better assess the reliability of the WACC in Nike's stock valuation.
7. In conclusion, this report provides a thorough evaluation of Nike's WACC and its impact on stock valuation. The calculations and discussions presented aim to facilitate a comprehensive understanding of the topic and assist in making informed investment decisions.