

# Case analysis of nike, inc.: cost of capital

Business



Apparently, the issue of Nike's case is to control and check the calculation of cost of capital done by Joanna Cohen who is the assistant of a portfolio manager at NorthPoint Group.

But I am willing to tell you that it can be a complex case in which we can doubt about sensitivity analysis done by Kimi Ford (portfolio manager) too. Because her assumptions such as Revenue Growth Rate, COGS / Sales, S / Sales, Current Assets / Sales, and Current Liability / Sales have been adopted from previous income statements and balance sheets from 1995 to 2001. Perhaps, we can take new assumptions. Generally, the case issue is to examine if the share price of Nike is undervalued or overvalued and the common stock of Nike Inc should be added to the North Point Group's Mutual Fund Portfolio or not. Now, let me approve Kimi Ford's analysis and tell you only the mistakes of Joanna Cohen.

What is the cost of capital? The cost of capital is the rate of return that a firm must earn on the projects in which it invests to maintain the market value of its stock. Cohen calculated a weighted average cost of capital (WACC) of 8.4 percent by using the Capital Asset Pricing Model (CAPM) for Nike Inc. I do not agree with Joanna Cohen because of the following reasons: -In the field of Equity's Cost: O She should use current yields on US Treasuries 3 to 12 months at 3.59% because the yield curve is upward sloping. Upward sloping yield curve means that North Point Group should rely on short-term financing instead of long-term financing.

In fact, by short-term financing, the manager can use a cheaper cost of equity. It means that North Point Group should sell the purchased shares of Nike

during the period of one year. In the case of value of equity, Cohen's should use liquidation value in calculating value of equity. Liquidation value per share is more realistic than book value because it is based on the current market value of the firm's assets by using of balance sheet data. Market

Value of Equity (E) Calculation:  $E = \text{Stock Price} \times \text{Number of Shares Outstanding} = \$42.09 \times 271.$

$5 = \$11,427.44$  This figure is should be used for market value of equity (E) rather than Joanna Cohen figure ( $\$3,494.50$ ). -In the field of Debt's Cost: In calculating value of debt, Cohen should have discounted the value of long-term debt that appears on the balance sheet. It means she should also consider the future value of total long term debt base on coupon rate.

To calculate total value of debt, the steps are as follows: From 15 July 2000 until 15 January 2001 = 6.75% coupon paid. From 15 January 2001 until 31 May 2001 (4.5 months) =  $6.75\% \times 4.5 \text{ months} / 6 \text{ months} = 5.$

06% Market Value of Debt (D) Calculation:  $D = \text{Current LT} + \text{Notes Payable} + \text{LT Debt (discounted)} = \$5.40 + \$855.30 + \$413.84 = \$1,274.54$

$9 - (435.9 \times 5.06\%) = 413.84$  Using these figures, we can now find the market value of Nike Inc. and the company's capital structure.

The Calculation of Weights: The weights of debt and equity are calculated using the market values of debt and equity as follows: Weight of Debt (WD)  $WD = D / (D+E)$   $WD = \$1,274.54 / \$12,701.98 = 10.03\%$  Weight of Equity (WE)  $WE = E / (D+E)$   $WE = 11,427.44 / 12,701.$

98 = 89. 97% Cost of Debt Cost of debt was calculated by finding the yield to maturity on 20-year Nike Inc. debt with a 6. 75% coupon semi-annually. I assumed Nike Inc. to have a single cost of capital since its multiple business segments (shoes, apparel, sports equipment, etc.

are not very different and would experience similar risks and betas. Before-Tax Cost of Debt I used three (3) methods as follows: -Method (1): Using Cost Quotations Based on Coupon Interest Rate and Yield to Maturity (YTM) Cost of Debt = 7. 58% -Method (2): Based on calculating the IRR Cost of Debt = 14. 15% -Method (3): Approximating the Cost Based on the Value Bond and Coupon Rate Cost of Debt = 7. 53% All of the calculations have been included in my spreadsheet. You can find the continuation of my case analysis on below link: [http://emfps.](http://emfps.blogspot.com/2011_06_12_archive.html)

[blogspot.com/2011\\_06\\_12\\_archive.html](http://emfps.blogspot.com/2011_06_12_archive.html)