

Weighted average cost of capital: home depot, inc. essay sample

[Finance](#), [Investment](#)



Introduction

The purpose of this project is to find the Weighted Average Cost of Capital (WACC) for Home Depot. Investopedia. com reveals that the WACC is “ a calculation of a firm’s cost of capital in which each category of capital is proportionately weighted. All capital sources - common stock, preferred stock, bonds and any other long-term debt - are included in a WACC calculation. All else equal, the WACC of a firm increases as the beta and rate of return on equity increases, as an increase in WACC notes a decrease in valuation and a higher risk” (Investopedia. com). We will attempt to provide information regarding the following: 1. Description of how we achieved the WACC. 2. Calculations used to obtain WACC. 3. Explanation of the results. 4. Sources of our data. 5. Discussion of confidence level in our answer, as well as any limiting assumptions if applicable. Company Profile

Before going directly into the weighted average cost of capital, it is desirable to provide the profile of the targeted company. The Home Depot, according to Bloomberg Businessweek was founded in 1978 by Bernie Marcus and Arthur Blank. Along with investment banker Ken Langone and merchandising Guru Pat Farrah. The company is headquartered in Atlanta, GA where it opened its first store. According to Bloomberg Businessweek, as of Feb. 2014 Home Depot had 2, 263 stores located throughout the US, Puerto Rico, US Virgin Islands, Guam, Canada and Mexico. It currently has 365, 000 employees and offer a wide range of building materials, home improvement items, gardening, patio and electrical products targeting mostly professional and do-it-yourself customers. Annual revenue grew to \$78. 8B in 2014.

WACC Calculation

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Tax Rate = 40%

Cost of Debt (before tax) or $R_{\text{debt}} = 5.875\%$

Cost of Equity or $R_{\text{equity}} = 6.59\%$

Debt (Total Liabilities) for 2012 or $D = \$29.600$ billion

Stock Price = \$82.01 (Jan, 12th 2014)

Outstanding Shares = 1.41 billion

Equity = Stock price x Outstanding Shares or $E = \$115.634$ billion

Debt + Equity or $D+E = \$145.234$ billion

WACC = $R = (1 - \text{Tax Rate}) \times R_{\text{debt}} (D/D+E) + R_{\text{equity}} (E/D+E)$

$(1 - 0.4) \times .05875 \times (\$29.600 / \$145.234) + .0659 (\$115.634 / \$145.234)$

$0.6 \times .05875 \times .2038 + .0659 \times .7962$

Hence: WACC = $.0072 + .0525 = 5.97\%$

Explanation of Calculation/Results

The formula for the Weighted Average Cost of Capital (WACC) is: $WACC = r_D (1 - T_c) \cdot (D/V) + r_E \cdot (E/V)$.

To have a better understanding everything is broken down as follow: $r_D =$

The required return of the firm's debt Financing. $(1 - T_c) =$ The Tax adjustment for interest expense.

$(D/V) =$ (Debt/Total Value). The % of the firm's value that is comprised of debt. $r_E =$ The firm's cost of equity.

The firm's cost of equity is best (or, at least, most easily) calculated using the CAPM (Capital Asset Pricing Model). Cost of Equity $r_E = r_f + B(r_M - r_f)$

where:

r_f = the ' Risk Free' rate of return

B = the firm's ' Beta'; the correlation between the firm's returns and the

market r_M = the historical " Market" return

• $(E/V) = (\text{Equity}/\text{Total Value})$. The % of the firm's value that is comprised of Equity is derived from the firm's intra-day market cap (stock price x shares outstanding). Based on the calculations above, we can conclude that Home Depot pays 5.97% on every dollar that it finances, or 5.97 cents on every dollar. This calculation shows that on every dollar the company spends on an investment, it must make \$.0597 plus the cost of the investment for the investment to be feasible for the company. Limiting Factors

The primary variables to be determined in order to calculate weighted average cost of capital are the relative debt and equity values, the cost of debt, and the cost of equity. While the relative debt and equity values can be easily determined, calculating the costs of debt and equity can be problematic. In calculating each component, we are given many different options and proxy values (boundless.com, 2015). In addition the calculation is based on assumptions of the capital mix that cannot always be maintained, " One of main limitation of using WACC is that it does not take into consideration the floatation cost of raising the marginal capital for new projects. Another problem with WACC is that it is based on an impractical assumption of same capital mix which is very difficult to maintain" (Borad, 2012). Conclusion

Calculating a firm's cost of capital has always been a key issue in financial management. To tackle this issue, WACC is one of the most widely used

formulas even though the process is difficult, and results seem ambiguous. However, it is clear that WACC is the average cost of capital the firm must pay, in this case Home Depot (HD), to all its investors, both debt and equity holders. Since HD has debt to the tune of \$29.6 billion (2012), it means that rwacc is an average of its debt and equity cost of capital. Based on the limiting factors revealed on the page 5, our confidence level in HD's WACC is moderate. Nevertheless, since HD's WACC is 5.97% it means that the company should only invest in projects that yield a return higher than 5.97%.

References

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