

# [Cost of capital assignment](https://assignbuster.com/cost-of-capital-assignment-essay-samples-2/)

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WEIGHTED AVERAGE COST OF CAPITAL FOR DELL COMPUTER 1)From the SEC website, the balance sheet of Dell Computer reveals a Book value of debt = $3, 394, 000, 000 and Book value of equity = $4, 625, 000, 000 The same balance shows the breakdown of the long-term debt (book values) in table 1. Table 1 Coupon Rate (%)MaturityBook Value (Face Value in million $) 3. 3806/15/2012400 4. 7004/15/2013599 5. 6304/15/2014500 5. 6504/15/2018499 5. 8806/15/2019600 7. 1004/15/2028396 6. 5004/15/2038400 2)From finance. yahoo. com, ??? The most recent (Oct 30 2009) stock price (Po) = $14. 45 Market value of equity or market capitalisation = $28, 260, 000000 ??? Shares outstanding (28, 260, 000, 000/14. 45) = 1, 955, 709, 343 ??? No dividend is paid recently. In this case, the dividend discount model cannot be used ??? The three-month treasury bill yield = 0. 03% Cost of Equity Risk free rate (Rf)= 0. 03% Systematic risk of Equity (Beta, BE) = 1. 36 Assuming market risk premium = 8. 6% Using the Capital Asset Pricing Model (CAPM), Cost of equity (RE) = Rf + BE(RM – Rf) Where, RM is expected return on the overall market (RM – Rf) is the market risk premium Cost of equity (RE) = 0. 0003 + 0. 086 x 1. 6 = 0. 1173 = 11. 73% Therefore, the cost of equity is 11. 73% 3)Cost of Debt From www. nasdbondinfo. com, the yields to maturity (YTM) for DELL bonds are shown in table 2. Table 2 Price (%)Yield to maturity (%) 103. 2362. 102 106. 2242. 800 109. 1573. 395 105. 2194. 889 107. 5264. 884 111. 2306. 079 101. 4806. 386 Table 3 is generated by combining tables 1 and 2 Table 3 Coupon RateBook Value ($)% of TotalMarket Value ($)% of TotalYield toBook ValuesMarket Values (%)(Face Value in million) (in million) Maturity (%)(%)(%) 3. 384000. 118412. 90. 1142. 1020. 250. 24 4. 705990. 176636. 30. 1762. 8000. 90. 49 5. 635000. 147545. 80. 1513. 3950. 500. 51 5. 654990. 147525. 00. 1454. 8890. 720. 71 5. 886000. 177645. 20. 1794. 8840. 860. 87 7. 103960. 117440. 50. 1226. 0790. 710. 74 6. 504000. 118405. 90. 1126. 3860. 750. 72 Total3, 3941. 0003, 611. 61. 0 4. 294. 29 To calculate the weighted average cost of debt, ??? the percentage of the total debt represented by each issue is computed ??? the percentage of each issue is multiplied by the yield on the issue ??? they are added to get the overall weighted average cost of debt ??? this is done for both the book and market values as shown in table 3 From table 3,

The book value weighted average cost of debt and the market value cost of debt are both = 4. 29% In this case, there is no difference if you use either of them. 4)Weighted Average Cost of Capital (WACC) Using book values: Debt (D) + Equity (E) = 3, 394b +4, 626b = $8, 020, 000, 000 Capital structure weight for: Debt = 3, 394, 000, 000/8, 020, 000, 000 = 0. 4232 Equity = 4, 626, 000, 000/8, 020, 000, 000 = 0. 4768 Marginal tax rate (Tc) = 35% Let E + D = V WACC = (E/V)RE + (D/V)RD(1-Tc) = 0. 4768×11. 73 + 0. 4232×4. 29(1-0. 35) = 6. 7730 Therefore, the Weighted Average Cost of Capital on a book value basis is 6. % Using market values: Debt (D) + Equity (E) = 3, 611. 6b + 28, 260b = $31, 871, 600, 000 Capital structure weight for: Debt = 3, 611, 600, 000/31, 871, 600, 000 = 0. 1133 Equity = 28, 260, 000, 000/31, 871, 600, 000 = 0. 8867 Let E + D = V WACC = (E/V)RE + (D/V)RD(1-Tc) = 0. 8867×11. 73 + 0. 1133×4. 29(1- 0. 35) = 10. 7169 Therefore, the Weighted Average Cost of Capital on a market value basis is 10. 7% The market value approach seems more relevant since the market-to-book ratio is on the high side as shown below. Market-to-book = 28, 260b/4, 625b = 6. 1.