

Cost of capital of home depot assignment

Business



1. Company Introduction Established in 1978 by Bernie Marcus and Arthur Blank, the Home Depot Corporation opened its first store in Atlanta, becoming the world's largest home improvement retailer. They are now the second largest retailer in the United States, offering 40, 000 to 50, 000 different types of home improvement supplies, building materials, and lawn and garden products. They carry a wide assortment of low-cost products, and offer expert advice and exceptional customer service. As an innovator of the home improvement industry, Home Depot has expanded into Canada, Mexico, Argentina, Chile, and Puerto Rico.

Currently there are 1, 459 stores including fifty EXPO Design Centers, one Floor Store, and three Home Depot Landscape Supply stores. Home Depot caters to Do-It-Yourself customers, as well as home improvement, construction and building maintenance professionals. Home Depot's stock went public in 1981 and is traded in the New York Stock Exchange under the ticker symbol, " HD". It is included in the Dow Jones Industrial Average and the Standard and Poor's 500 Index. The Home Improvement sector in general is in the growth stage of its life cycle.

Even in the weak economic environment, low interest rates have allowed the real estate sector to survive. As a result, home ownership has reached new highs, and the housing industry thrived. In August 2002, Home Depot was ranked first in " Quality of Earnings" by Merrill Lynch in a study of large, publicly traded companies. Home Depot reported net sales for fiscal 2001 of \$53. 6 billion and employs approximately 280, 000 people. Fortune Magazine has ranked them as " America's Most Admired Specialty Retailer". Business Week cited Home Depot as " Ten Best Boards in the U. S. In October 10,

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2002, Home Depot announced they are opening two sourcing offices in Shanghai and Shenzhen. According to Vice President of Global Sourcing, Duane Goodwin, this will allow Home Depot to enhance their opportunities to purchase more goods directly from their manufacturers, as well as rapidly expand their purchasing throughout China and Asia. The company's Income Statement and Balance Sheet are found in Appendix 1 and 2, respectively.

2. Cost of Equity

2.1 Beta Estimation

We arrived at beta estimate for Home Depot of 1.29 using regression analysis of the past 60 months for Home Depot and S&P 500.

Home Depot's beta is slightly greater than 1, which is the market's beta. The beta for Home Depot's stock reported in finance.yahoo.com is 1.37, and industry's beta is 1.28. The historical prices and the returns of Home Depot as well as the corresponding historical prices and the returns of S&P 500, which are used for the regression analysis, are listed as Appendix 2. The beta analysis is summarized in appendix 3.

2.2 Estimating Cost of Common Equity using the CAPM Method

To estimate the cost of common equity, we used the Capital Asset Pricing Model. For the risk free rate we used the 10-year Treasury bond yield of 3.9% as quoted from finance.yahoo.com as of October 31, 2002. We estimated the market risk premium to be 6% given that the historical market risk premium was between 5% to 6%. We arrived at the cost of common equity for Home Depot by multiplying the beta of 1.06 by the historical market risk premium of 6%, and then added this amount to the risk free rate of 3.89%. The cost of common equity is 11.63%. The estimation of the cost of common equity of Home Depot using the CAPM

model is summarized in Appendix 5. 3. Cost of Preferred Stock Home Depot does not have any outstanding preferred stock, or paid preferred dividend.

The company does not finance through preferred stocks. 4. Cost of Debt We used a 10-year AAA corporate bond yield of 3.66% as quoted at finance.yahoo.com as of October 31, 2002. Given the company's very low financial leverage and very high coverage ratio, we decided that the company's rating should be AAA for a 10-year bond. To estimate the company's tax rate, we divided the income tax expense of 2002: \$ 1,913,000,000, by the income before tax: \$ 4,957,000,000. The average tax rate is 0.3859. Our estimation for the firm's after-tax cost of debt is about 2.25%. The analysis of the cost of debt is summarized in Appendix D. . Weighted Average Cost Of Capital In estimating the weighted average cost of capital, we used the cost of equity of 11.63% and the cost of debt of 2.25%. We calculated the weight of debt to be 2% and the weight of equity to be 98%. For the weight of debt we divided debt by the sum of debt and equity, and for the weight of equity we divided equity by the sum of debt and equity. Our estimated Company's cost of capital is 11.44%, or 12%. The calculations for the cost of capital are shown in Appendix E. Appendix 1. Income Statement Period Ending: 3-Feb-0228-Jan-0130-Jan-0031-Jan-99

	3-Feb-02	28-Jan-01	30-Jan-00	31-Jan-99
Total Revenue	\$53,553	\$45,738	\$38,434	\$30,219
Cost Of Revenue	\$37,406	\$32,057	\$27,023	\$21,614
Gross Profit	\$16,147	\$13,681	\$11,411	\$8,605
Operating Expenses				
Research And Development	N/A	N/A	N/A	N/A
Selling General And Administrative Expenses	\$11,098	\$9,348	\$7,503	\$5,935
Depreciation and Amortization	N/A	N/A	N/A	N/A
Non Recurring	\$117	N/A	N/A	N/A
Other Operating Expenses	N/A	\$142	\$113	
Operating Income	\$4,932	\$4,191		

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\$3, 795 \$2, 670 Total Other Income And Expenses Net\$53 \$47 \$37 \$30
 Earnings Before Interest And Taxes\$4, 985 \$4, 238 \$3, 832 \$2, 700 Interest
 Expense\$28 \$21 \$28 \$46 Income Before Tax\$4, 957 \$4, 217 \$3, 804 \$2, 654
 Income Tax Expense\$1, 913 \$1, 636 \$1, 484 \$1, 040 Equity Earnings Or Loss
 Unconsolidated SubsidiaryN/AN/AN/AN/A Minority InterestN/AN/AN/AN/A Net
 Income From Continuing Operations\$3, 044 \$2, 581 \$2, 320 \$1, 614
 Nonrecurring Events Discontinued OperationsN/AN/AN/AN/A Extraordinary
 ItemsN/AN/AN/AN/A Effect Of Accounting ChangesN/AN/AN/AN/A Other
 ItemsN/AN/AN/AN/A Net Income\$3, 044 \$2, 581 \$2, 320 \$1, 614 Preferred
 Stock And Other AdjustmentsN/AN/AN/AN/A Net Income Applicable To
 Common Shares\$3, 044 \$2, 581 \$2, 320 \$1, 614 * In Millions of U. S Dollars
 except for per share items. Appendix 2. Balance Sheet

Period Ending3-Feb-0228-Jan-0130-Jan-0031-Jan-99 Current Assets Cash And
 Cash Equivalents\$2, 477 \$167 \$168 \$62 Short Term Investments\$69 \$10 \$2
 N/A Net Receivables\$920 \$835 \$587 \$469 Inventory\$6, 725 \$6, 556 \$5, 489
 \$4, 293 Other Current Assets\$170 \$209 \$144 \$109 Total Current Assets\$10,
 361 \$7, 777 \$6, 390 \$4, 933 Long Term Investment Property, Plant, and
 Equipment Gross1812915232118909422 Accumulated Depreciation\$2, 754
 \$2, 164 \$1, 663 \$1, 262 Property Plant And Equipment Net\$15, 375 \$13, 068
 \$10, 227 \$8, 160 Investment Advances to subsidiariesN/AN/A\$15 \$15 Other
 Non-Current Assets\$83 \$77 \$48 \$26

Intangible Assets\$419 \$314 \$311 \$268 Other Assets\$156 \$134 \$90 \$63
 Total Assets\$26, 394 \$21, 385 \$17, 081 \$13, 465 Current Liabilities Accounts
 Payable\$3, 436 \$1, 976 \$1, 993 \$1, 586 Accrued Expenses\$1, 998 \$1, 677

\$1, 573 \$1, 157 Short Term And Current Long Term Debt\$5 \$4 \$29 \$14
 Income Taxes\$211 \$78 \$61 \$100 Other Current Liabilities\$851 650N/AN/A
 Total Current Liabilities\$6, 501 \$4, 385 \$3, 656 \$2, 857 Long Term Debt\$1,
 250 \$1, 545 \$750 \$1, 566 Other Liabilities\$372 \$245 \$237 \$208 Deferred
 Long Term Liability Charges\$189 \$195 \$87 \$85 Minority InterestN/A\$11 \$10
 Negative GoodwillN/AN/AN/A

Total Liabilities\$8, 312 \$6, 381 \$4, 740 \$4, 716 Stock Holders Equity
 Preferred StockN/AN/AN/AN/A Common Stock\$117 \$116 \$115 \$111 Retained
 Earnings\$12, 799 \$10, 151 \$7, 941 \$5, 876 Treasury StockN/AN/AN/AN/A
 Capital Surplus\$5, 412 \$4, 810 \$4, 319 \$2, 817 Other Stockholder

Equity(\$246)(\$73)(\$34)(\$64) Total Stockholder Equity\$18, 082 \$15, 004 \$12,
 341 \$8, 740 Net Tangible Assets\$17, 663 \$14, 690 \$12, 030 \$8, 749 * In

Millions of U. S Dollars except for per share items. Appendix 3. Historical
 prices and returns of Home Depot and S & P 500 DateHD Adjusted PriceS&P
 500 ReturnHD Adjusted PriceS&P 500 Return 1-Oct-0228. 459. 0%860. 025.
 49% 3-Sep-0226. 120. 62%815. 2811. 00% 1-Aug-0232. 886. 65%916. 070.
 49% 1-Jul-0230. 8315. 93%911. 62-7. 90% 3-Jun-0236. 6711. 79%989. 82-7.
 25% 1-May-0241. 5710. 10%1067. 14-0. 91% 1-Apr-0246. 24-4. 62%1076.
 92-6. 14% 1-Mar-0248. 48-2. 67%1147. 393. 67% 1-Feb-0249. 81-0.
 18%1106. 73-2. 08% 2-Jan-0249. 9-1. 81%1130. 2-1. 56% 3-Dec-0150. 829.
 36%1148. 080. 76% 1-Nov-0146. 4722. 16%1139. 457. 52% 1-Oct-0138. 04-
 0. 37%1059. 781. 81% 4-Sep-0138. 1816. 49%1040. 94-8. 17% 1-Aug-0145.
 72-8. 71%1133. 58-6. 41% 2-Jul-0150. 086. 62%1211. 23-1. 07% 1-Jun-0146.
 97-4. 08%1224. 38-2. 50% 1-May-0148. 974. 6%1255. 820. 51% 2-Apr-0146.
 799. 27%1249. 467. 68% 1-Mar-0142. 821. 52%1160. 33-6. 42% 1-Feb-0142.

1811. 83%1239. 94-9. 23% 2-Jan-0147. 845. 51%1366. 013. 46% 1-Dec-0045. 3416. 59%1320. 280. 41% 1-Nov-0038. 89-8. 77%1314. 95-8. 01% 2-Oct-0042. 6318. 78%1429. 4-0. 49% 1-Sep-0052. 4910. 16%1436. 51-5. 35% 1-Aug-0047. 65-7. 06%1517. 686. 07% 3-Jul-0051. 273. 64%1430. 83-1. 63% 1-Jun-0049. 472. 04%1454. 62. 39% 1-May-0048. 4813. 27%1420. 6-2. 19% 3-Apr-0055. 912. 41%1452. 43-3. 08% 1-Mar-0063. 8212. 30%1498. 589. 67% 1-Feb-0056. 831. 55%1366. 42-2. 01% 3-Jan-0055. 9617. 63%1394. 46-5. 09% 1-Dec-9967. 9430. 3%1469. 255. 78% 1-Nov-9952. 174. 61%1388. 911. 91% 1-Oct-9949. 8710. 38%1362. 936. 25% 1-Sep-9945. 1811. 58%1282. 71-2. 86% 2-Aug-9940. 49-3. 55%1320. 41-0. 63% 1-Jul-9941. 98-0. 99%1328. 72-3. 20% 1-Jun-9942. 414. 01%1372. 715. 44% 3-May-9937. 19-5. 34%1301. 84-2. 50% 1-Apr-9939. 29-4. 01%1335. 183. 79% 1-Mar-9940. 934. 36%1286. 373. 88% 1-Feb-9939. 22-1. 36%1238. 33-3. 23% 4-Jan-9939. 76-1. 12%1279. 644. 10% 1-Dec-9840. 2123. 08%1229. 235. 64% 2-Nov-9832. 6714. 19%1163. 635. 91% 1-Oct-9828. 6110. 29%1098. 678. 03% 1-Sep-9825. 943. 59%1017. 016. 24% 3-Aug-9825. 04-8. 95%957. 2814. 58% 1-Jul-9827. 50. 1%1120. 67-1. 16% 1-Jun-9827. 285. 74%1133. 843. 94% 1-May-9825. 812. 76%1090. 82-1. 88% 1-Apr-9822. 883. 02%1111. 750. 91% 2-Mar-9822. 215. 86%1101. 754. 99% 2-Feb-9820. 985. 59%1049. 347. 04% 2-Jan-9819. 872. 79%980. 281. 02% 1-Dec-9719. 335. 00%970. 431. 57% 3-Nov-9718. 410. 55%955. 44. 46% 1-Oct-9718. 316. 95%914. 62-3. 45% 16-Sep-9717. 12947. 28 Appendix 4. Beta estimation output SUMMARY OUTPUT Regression Statistics Multiple R0. 648426823 R Square0. 420457345 Adjusted R Square0. 410634588 Standard Error0. 08074751 Observations61 ANOVA dfSSMSFSignificance F Regression10. 2790916370. 27909163742. 04413351. 60141E-08 Residual590.

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3846894580. 00652016 Total600. 663781094 CoefficientsStandard Error
 StatP-valueLower 95% Intercept0. 0140068670. 0103387241. 3547964980.
 180647592-0. 006680894 X Variable 11. 2904471530. 1972404346.
 5425081851. 60141E-080. 895769542 Upper 95%Lower 95. 0%Upper 95.
 0% 0. 034694628-0. 0066808940. 034694628 1. 6851247650. 8957695421.
 685124765 Appendix 5. Home Depot's Cost of Capital (1) Cost of common
 equity: CAPM = 3.89 % + 1.29 * 6 % = 11.63 % In estimating the cost of
 common equity, we used the CAPM model. For risk free rate, we used 10
 year Treasury bond yield of 3.9 % as of October 31, 2002. We obtained the
 quote from finance.yahoo.com. We estimated company's beta of 1.29 by
 regressing the stock returns on the market returns of the past 60 months.
 We used the market risk premium of 6 % because the historical market risk
 premium is between 5 to 6 %. (2) Cost of preferred stock: Company doesn't
 have outstanding preferred stock, or paid preferred dividend. We discovered
 that company doesn't finance by preferred stocks. (3) Cost of debt $k_d = 3.66\%$
 $(1 - 0.3859) = 2.2476\% = 2.25\%$: AAA 10 year
 corporate bond yield ; 0.859 : average tax rate (income tax / income
 before tax ; \$1,913,000,000/\$4,957,000,000) We used 10 year AAA
 corporate bond yield as of October, 31, 2002. Given the company's low
 financial leverage and high coverage ratio, we concluded that company's
 rating is AAA. We the firm's tax rate by dividing the income tax expense of
 year 2002 which amounts \$ 1,913,000,000 by income before tax of \$ 4,
 957,000,000. (4) WACC $WACC = (11.63\% * .98) + (2.25\% * .02) = 11.44\%$
 Market value of equity: Weight of Debt = $\$1,250,000,000 / (\$1,250,$
 $000,000 + \$66,700,000,000) = 2\%$ Weight of Equity = $\$66,700,000,000 /$
 $(\$1,250,000,000 + \$66,700,000,000) = 98\%$

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