

## Percentage of Sales Forecasting Method

**Objective:** The objective of this assignment is to forecast the income statement and balance sheet and future financing requirements using an Excel spreadsheet. The percentage of sales method, which relates various (but not all) financial statement line items as a percentage of net sales, is the technique used.

**Company:** Home Depot (HD) (<http://www.homedepot.com>) is the largest home improvement retailer in the world with 930 do-it-yourself warehouse stores (as of January 2000) based on fiscal 1999 net sales volume. Of these 930 Home Depot stores, EXPO Design Center stores and Villager's Hardware stores at January 30, 2000, approximately 77% were owned (including those owned subject to a ground lease) and approximately 23% were leased. Management has increased the relative percentage of new stores that are owned in recent years. Although the construction cost of new stores that the Company owns varies due primarily to land costs, it is currently estimated to average approximately \$13.2 million per location. The expected cost to remodel and/or fix stores to be leased averages approximately \$4.3 million per store. In addition, each new store requires approximately \$3.2 million to finance inventories, net of vendor financing. On average, each store contains 108,000 square feet of enclosed space and an additional 24,000 square feet of outside garden area. Each store stocks approximately 40,000-50,000 product items. In addition to its warehouse stores, it also operates 15 EXPO Design Center stores that offer interior design products.



Home Depot's management "currently anticipates opening approximately 200 new Home Depot, EXPO Design Center and Villager's Hardware stores during fiscal 2000. This plan is consistent with our policy of opening stores at a consistent rate of 21-22% per year for the foreseeable future. Overall, our current plan anticipates having over 1,900 stores by the end of fiscal 2003, the substantial majority of which will be Home Depot stores located in the United States." (source: 10K) On October 12, 2000 the company announced that it anticipates reporting a 4% comparable sales increase for the third quarter of fiscal 2000 compared to its previous estimate of five to seven percent. Home Depot also expects a 4% increase for the fourth quarter due to deflation in lumber and building material retail pricing. Historically, sales growth has been 25% per annum over the prior 3-5 year period



**Assignment:** Download the home depot data and use the data spreadsheet to answer the following questions.

1. Using the margin analysis worksheet in the downloaded spreadsheet, calculate the appropriate ratios for the years given including TTM. TTM stands for trailing twelve months. Comment on whether the percentage of sales ratios for the TTM are "representative" in general e.g., are they more or less in line with the ratios for each line item over the past 3-5 years?
2. Using the stores in states worksheet, use Excel to draw a map of the number of stores in each state. (Hint: Highlight the area that contains the all of the states and the number of stores in each state in Excel and then click on the "globe" icon )



3. Using the simplified financial statement worksheet/template (Simplified Fin Stmt) in the downloaded spreadsheet, fill in the numbers for 1/30/2000 and also the assumptions. The area to be filled in is highlighted in yellow. In using this template, you will need to aggregate/add several line items together in the balance sheet or income statement. Next, forecast the income statement and balance sheet for 1/30/2001 and 1/30/2002 using the assumptions given in conjunction with the numbers for 1/30/2000. According to Home Depot's 10K, "Maturities of long-term debt are \$29 million for fiscal 2000, \$4 million for fiscal 2001, \$19 million for fiscal 2002, \$5 million for fiscal 2003 and \$506 million for fiscal 2004." Assume that Home Depot will NOT issue any new stock over the next two years (fiscal 2001 and fiscal 2002). Please round your dollar amounts to the nearest whole dollar. (Note: Since a circular reference exists and as such you're setting the Calculations to Manual mode in Excel, be sure to press the F9 key in updating your spreadsheet whenever you do another calculation in Excel.)
4. Assuming that the number of outstanding shares on 1/30/2000 of 2,244,000 (Basic/Primary Weighted Average Shares) and 2,342,000 (Diluted Weighted Average Shares) remain constant for fiscal year 2001 and fiscal year 2002, what is the Basic/Primary earnings per share (EPS) for 2001? What is the Diluted EPS for 2001? What are the Basic/Primary and Diluted EPS for 2002? Please round your answer to two decimal places e.g. \$1.03. (Warning: If you are still in the Manual Calculation mode in Excel, you will need to use the F9 key in updating your calculations)
5. Prepare a Data Table showing how the Diluted EPS for fiscal year 2001 and 2002 will change for different levels of sales growth. We have assumed that sales grow at 21.5%. Use growth rates from 19% to 26.5% in .5% increments e.g., 19%, 19.5%, ... , 26%, 26.5% in setting up your sensitivity analysis table. According to [www.marketguide.com](http://www.marketguide.com), analysts expect Home Depot to earn \$1.42 per share on a diluted basis for fiscal 2002. What growth rate in sales is needed to obtain a diluted EPS of \$1.42 per share?

### Assumptions Used in Forecasting Financial Statements:

Line Item	Assumption
Sales	Sales is expected to grow at 21.5% per annum
Cost of Goods Sold	Use COGS/Net Sales ratio for trailing twelve months (TTM) in doing forecast. Home Depot's COGs includes depreciation and amortization.
Selling, General & Admin	Use SGA/Net Sales ratio for TTM in forecasting
Net Interest (Expense)/Income	Net Interest Expense = Interest Income - Interest Expense. The non-operating income listed for 1/30/2000 in the 10K is interest income.
Interest Expense on existing debt	2.6% of total existing debt; total debt = ST debt + ST capital leases + LT debt + LT capital leases
Interest Expense on new debt	Home Depot's debt rating is AA3. Assuming HD prefers a 5-year maturity, the spread over a 5-year Treasury bond as of 11/7/2000 was 104 (1.04%). The current yield on a 5-year Tbond is 5.83%. Hence, the interest rate is 6.87%.
Interest Income	6.4% of Cash + Marketable Securities (annual yield on 3 month T-bill as of 11/7/2000)
Marginal tax rate	39%
Total Debt/(Total Debt + Shareholder Equity)	Assume that the firm continues to maintain a 5.5% debt to total capitalization ratio in the near term.
Cash and marketable securities	Is the "Plug" e.g. the balance sheet item that "closes" the model
Current Assets (excluding cash and marketable securities)	Use Current Assets excluding cash & marketable securities/Net Sales for TTM in forecasting
Net Property, Plant & Equipment	Use Net PP&E/Net Sales ratio for TTM in forecasting
Intangibles	Remains constant at the 7/30/2000 level (see 10Q) in forecast period. Note that we are using the most recent figure available to us as of this writing.
Other Long Term Assets	Remains constant at the 7/30/2000 level (see 10Q) in forecast period.
Current Liabilities	Use Current Liabilities/Net Sales for TTM in forecasting
Other Long Term Liabilities (includes Deferred Charges & Minority Interests)	Remains constant at the 7/30/2000 level (see 10Q) in forecast period.
Dividends	Payout ratio = dividends/net income = 11.2%. What isn't paid out is added to retained earnings.

Note: If there is a NA in a particular cell of your data spreadsheet, set it equal to zero e.g., NA = 0.