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Financial Management

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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: Named after two ingredients, coca leaves (later cleaned of narcotics) and kola nuts, Coke is the world's top soft-drink company selling 300 drink brands in over 200 nations and commands about 50% of the global soft-drink market. Approximately 70% of Coca-Cola's sales come from outside the United States. Among its other brands are Barq's, Fruitopia, Minute Maid, POWERaDE, Sprite, and Dasani water. It also sells Group Danone's Evian water in North America and in the US sells Group Danone's spring water brands (Dannon and Sparkletts). Coca-Cola sells Crush, Dr Pepper, and Schweppes outside of Australia, Europe, and North America.

Coke has undertaken a new marketing and ad campaigns in 2003 that include changing graphics on Coke bottles and cans back to a more traditional look to entice younger consumers interest in its flagship cola. To spur interest in Sprite however, Coca-Cola has used a different tactic, unveiling in April 2003 Sprite Remix, a tropical flavored version of the soft drink. Also in April, the company purchased a stake in the College Sports Television network. To cut costs and make itself more competitive, Coca-Cola combined business units at Coca-Cola Fountain and Minute Maid (including Odwalla) and at its bottled water interests moving them all under the Coca-Cola North America umbrella.

In announcing their first quarter 2003 results,

- The Company expects strong cash flows to continue in the future. Cash from operations for the quarter was $599 million, including the impact of a $145 million contribution to the Company's U.S. pension plan.

- The Company repurchased 8.3 million shares of its common stock for $319 million during the first quarter and intends to repurchase approximately $1.5 billion of its stock in 2003. Dividend increased 10 percent in 2003, reflecting the 41st consecutive annual increase.

- During the first quarter of 2003, the Company initiated steps to streamline and simplify its operations, primarily in North America and Germany. In North America, the Company is integrating the operations of its three separate North American business units -- Coca-Cola North America, Minute Maid, and Fountain. In Germany, Coca-Cola Erfrischungsgetraenke AG (CCEAG) is taking steps to improve its efficiency in sales, distribution and manufacturing. These initiatives are proceeding as planned and resulted in a first quarter pre-tax charge of $159 million, or $0.04 per share after tax. As previously announced, the streamlining initiatives are expected to result in a full-year 2003 charge to earnings of approximately $400 million on a pre-tax basis. The remainder of the charge will be recorded throughout the rest of the year.

Competitors: Pepsico (PEP), Cadbury Schweppes (CSG), Nestle (NSRGY)

Assignment: Download the spreadsheet for Coca-Cola and use the data in the workbook together with the assumptions at the end of this mini-case to answer the following questions.

1. Using the margin analysis worksheet labeled "**1. Pct of Sales (Template)**" in your downloaded workbook, calculate the appropriate ratios for the years given including TTM. TTM stands for trailing twelve months. The ratios should be calculated using the information from Disclosure contained in the "KO 10Q" and "KO 10K" worksheets. 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? Be sure to note any comments (the orange corner) in doing your calculation. (25 Points)

2. Go to the Wall Street Research Network (WSRN) website (http://www.wsrn.com) and access the information page for Coke by entering the ticker symbol KO and then clicking on the GO button. After you have accessed the Coke information page (http://www.wsrn.com/apps/links/?s=ko&client_id=WSRN&f=RESEARCH), click on **SEC Filings (Edgar-Online)**. Go to the 10K for Coke and print out the page in the 10K that contains the Aggregate Contractual Obligations (maturity of debt for Coke). The information should match that in your "Agg. Contractual Obligations" worksheet. (5 Points)

3. Using the worksheet labeled "**2. Forecast FinStmt (Template)**", please complete the following

   a. Fill in the numbers for 12/31/2002 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 12/31/2003 and 12/31/2004 using the assumptions given in conjunction with the numbers for 12/31/2002 and also the information contained in the "Agg. Contractual Obligations" worksheet. In setting up your worksheet, assume that Coke will maintain a 32% debt-to-total capital ratio (assume that this is their target capital structure). (10 points)

b. After you have finished forecasting net income, calculate the basic and diluted earnings per share (EPS) for Coke. How close are your EPS estimates to those of Wall Street analysts using the “Analyst EPS” worksheet provided. (50 points)

c. Given your forecasted 2002 and 2003 diluted EPS, use the Data Table command in Excel to perform EPS sensitivity analysis based on changes in the growth rate in sales. 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) (10 points)

Please hand in a hardcopy of your answers together with a disk containing all of your calculations. This is an individual assignment. Anyone caught cheating will be given an automatic F on this project.

Assumptions Used in Forecasting Financial Statements:

Line Item	Assumption
TTM (LTM)	Trailing twelve months (last 12 months)
Sales	Sales are expected to grow at 6% per annum
Cost of Goods Sold (COGs)	Use the TTM COGS/Net Sales ratio from the "PCT of Sales (Disclosure)" worksheet for your forecast (question #3). The COGS should *exclude* any Depreciation and Amortization.
Selling, General & Admin (SGA)	Use the TTM SGA/Net Sales ratio from the "PCT of Sales (Disclosure)" worksheet for your forecast (question #3).
Depreciation and Amortization	Use the TTM Depreciation & Amortization/Net Sales ratio from the "PCT of Sales" worksheet.
Interest rate on existing debt	Interest Expense is actual interest expense, not *net* interest expense (interest expense – interest income) as shown in the income statement. I have obtained the actual interest expense and interest income from the 10Ks and 10Qs. This information is found at the bottom on the appropriate worksheets under Supplemental Information. Use the TTM Interest Expense/Total Debt ratio from the "PCT of Sales" worksheet. Total debt = Notes Payable + Current LT Debt + Current Portion of Capital Leases + Mortgages + Convertible Debt + LT Debt + LT Capital Leases.
Interest rate on new debt	Coke's debt rating is Aa3 (Moody's). Assuming that KO prefers a 10-year maturity, the default spread over a 10-year Treasury bond, as of 5/30/2003 was 67 basis points or .67%. The current yield on a 10-year Treasury Bond is 3.36%. Hence, the interest rate is 4.03% (3.36% + .67%).
Interest rate on Cash and Marketable Securities	Use the TTM Interest Income/(Cash + Marketable Securities) ratio from the "PCT of Sales (Disclosure)" worksheet.
Estimated Equity income from Coke Bottlers	Analysts expect that the Estimated Equity income from Coke Bottlers in 2003 and in 2004 will be \$458,000 and \$527,000 (in 000s) respectively.

Line Item	Assumption
Estimate of Other Income-Net	Analysts expect that the Estimate of Other Income-Net in 2003 and in 2004 will be -$103,000 and -$100,000 (in 000s) respectively.
Marginal tax rate	27%. We arrive at this by rounding the TTM Tax Expense/Income before Taxes ratio.
Debt Maturing in the Future	Since Coke states the Debt Payment Due by Period in terms of 2 years e.g., 2004-2005, assume that half of the $1,611,000 debt is due in 2004 and the rest of the debt is due in 2005.
Total Debt/(Total Debt + Shareholder Equity)	Assume that the firm continues to maintain an 32% debt to total capitalization ratio (we assume that this is their target capital structure) in the near term. This means that Debt = (.32/.68)*Equity.[1]
Cash and marketable securities	Is the "**Plug**" e.g. the balance sheet item that "closes" the model. In other words, it makes Assets = Liabilities + Equity. To obtain the amount of cash and equivalents (the plug), since Total Assets = Total Liabilities + Equity, it follows that Cash & Marketable Securities = Total Liabilities + Equity - Current Assets (excluding cash & marketable securities) - Net Property, Plant & Equipment - Intangibles - Other Long Term Assets.
Current Assets (excluding cash and marketable securities)	Use the TTM Current Assets excluding cash & marketable securities/Net Sales ratio from the “PCT of Sales (Disclosure)” worksheet.
Net Property, Plant & Equipment	Use the TTM Net PP&E/Net Sales ratio from the “PCT of Sales (Disclosure)” worksheet.[2]
Intangibles	Remains constant at the TTM level (see KO 10Q) in forecast period. Note that we are using the most recent figure (“freshest” numbers) available to us as of this writing.

[1] Debt = .32*(Debt + Equity) = .32*Debt + .32*Equity ⇒ Debt - .32*Debt = .32*Equity ⇒ .32*Debt = .32*Equity ⇒ Debt = (.32/.68)*Equity

[2] In actual practice, there may be a lag between Net PP&E and Sales depending on the nature of the industry. One way to detect this is by looking at the ratio of contemporaneous and lagged Net PP&E in relation to Sales ratio.

Line Item	Assumption
Other Long Term Assets	Remains constant at the TTM level (see KO 10Q) in forecast period. Includes Investments & Advances to Subsidiaries, Other Non-Current Assets, Deferred Charges (that are Assets), as well as Deposits & Other Assets.
Current Liabilities	Use the TTM Total Current Liabilities (excluding ST Debt)/Net Sales ratio from the "PCT of Sales (Disclosure)" worksheet. Short term (ST) debt = Notes Payable + Current LT Debt + Current Portion of Capital Leases
Other Long Term Liabilities	Remains constant at the TTM level (see KO 10Q) in forecast period. Includes Deferred Charges (in Liabilities section), Other LT Liabilities, and Minority Interest (if any).
Dividends	Use the TTM Dividend/Net Income ratio from the "PCT of Sales (Disclosure)" worksheet. This ratio is also known as the Payout ratio = dividends/net income. What isn't paid out as dividends 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.