

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 the daughter of founder Dave Thomas, Wendy's (WEN) (<http://www.wendys.com>) is the third largest hamburger chain in the US after #1 McDonald's and Diageo's #2 Burger King. Wendy's has about 5,800 restaurants worldwide. Eighty percent of their restaurants are franchised. In terms of the number of restaurants, 85% are in the US. The company also owns more than 2,000 Tim Hortons¹ (all but 105 are franchised), the #1 coffee and baked goods chain in Canada. In addition to Canada, Wendy's biggest international markets are Japan, Venezuela and Puerto Rico. In general, the company does not sell food or supplies to its Wendy's franchisees. Wendy's generates about 75% of the firm's revenue and pretax income. Tim Horton's generates most of the remaining income and is the fastest growing segment.



Management is focused on continuing to profitably grow its core businesses of Wendy's(R) in North America and Tim Hortons(R) in Canada while strengthening its evolving businesses of International Wendy's and Tim Hortons U.S. At the same time, to ensure long-term growth, management is currently looking to grow through acquisitions. To accomplish this, the firm is working on financial initiatives that include among others:

- amending their revolving credit agreements to raise their borrowing amount from \$167 million to \$200 million.
- issuing commercial paper (unsecured short-term notes) to leading financial institutions in order to provide maximum financial flexibility
- undertaking joint ventures e.g., they are investing about \$35 million to build a baking facility in Canada with Cuisine de France to supply Tim Hortons stores with French baguettes and breads.

According to their new Chief Financial Officer, Kerri Anderson, "Our balance sheet is in great shape with a debt-to-equity ratio of 21%. We believe that we could borrow additional cash and maintain our investment grade ratings. Our business generates strong cash flow, which enables us to aggressively grow our Wendy's and Tim Hortons chains. This is important because our core businesses will provide the lion's share of

¹Named after Toronto Maple Leafs defenseman Tim Horton who has since died in a car accident.



our revenues and earnings growth over the next five years. These financing initiatives are really aimed at positioning the Company over the longer term and funding growth opportunities."

The Company currently funds internally all of its cash needs for new store growth and other capital expenditures such as renovations and technology. Since 1998 through the end of the second quarter, the Company repurchased 23 million common shares for \$517 million. In the CEO's letter to shareholders

contained in Wendys annual report for 2000, the CEO announced that his goal is to produce 12% to 15% annual EPS growth in 2001.

Competitors: Burger King (a subsidiary of Diego's (DEO)), Jack in the Box (JBX), McDonalds (MCD), and Tricon Global Restaurants (YUM).

Assignment: Download the spreadsheet for Wendys 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 "PCT of Sales (Disclosure)" 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 "WEN 10Q" and "WEN 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.

2. Using the stores in "Wendy's Stores in US" worksheet, use Excel to draw a map of the **total** number of Wendys restaurants in each state. In addition to this, draw another map of the Wendys **company-owned** restaurants in each state. (Hint: Highlight the area that contains all of the states and the number of stores in each state in Excel and then click on the "globe" icon). If you do not see a globe icon on your toolbar, click on the Tools submenu ⇨ select Customize ... ⇨ click on **I**nsert in the Categories box and in the Commands box, select Map ⇨ drag the map icon to the toolbar above.



3. Using the worksheet labeled "Simplified Fin Stmt", please complete the following

- Fill in the numbers for 12/31/2000 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 12/31/2001 and 12/31/2002 using the assumptions given in conjunction with the numbers for 12/31/2000.

According to Wendy's 10K, debt maturing in fiscal 2001 is \$948,000 and debt maturing in 2002 is \$997,000. In setting up your worksheet, assume that Wendy's will maintain their current debt-to-total capital ratio e.g., the current debt-to-total capital ratio is equal to their target capital structure.

- b. After you have finished forecasting net income, calculate the basic and diluted earnings per share (EPS) for Wendy's.
- c. Given your forecasted 2001 and 2002 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)

4. Using the margin analysis worksheet labeled "Pct Sales (Marketguide)" in your downloaded workbook, calculate the appropriate ratios for the years given using the information from the "Marketguide" worksheets. You are recalculating the percentage of sales using Marketguide as your data source since this source provides a finer delineation of expenses. Please note that the cost of goods (COGs) and the selling, general, and administrative expense numbers are different. This is due in part to the additional expense categories of unusual expenses and other operating expenses. In addition to this, the COGs line item includes the cost of sales, company restaurant operating costs, and operating costs. Warning: The numbers in Marketguide are in \$millions of dollars whereas the numbers in Disclosure as in \$thousands of dollars.

5. Make a copy of your completed worksheet from question #3 above by clicking on Edit in the toolbar ⇨ select Move or Copy Sheet... ⇨ scroll down the Before sheet: box and highlight the worksheet that you want to copy ⇨ click on the box labeled "Create a copy" and then click OK. Name this new worksheet "Forecast (Diff Assumptions)". Given the new COGs/Sales ratio and SGA/Sales ratio (this new SGA ratio includes Other Operating Expenses e.g. (SGA + Other Operating Expenses)/Sales) as of 12/31/2000, redo your analysis including forecasting diluted EPS and the accompanying sensitivity analysis. All other inputs remain the same. How do your forecasted numbers compare with actual analysts estimates for Wendy's found in the worksheet labeled "Analysts EPS"? Does the exclusion of international charges make a difference in our results? Given our forecast in question #5, how likely is it for the CEO to attain his announced goal of producing 12% to 15% annual EPS growth in 2001?

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 is expected to grow at 8% per annum
Cost of Goods Sold (COGs)	Use the TTM COGS/Net Sales ratio from the "PCT of Sales (Disclosure)" worksheet for your initial forecast (question #3). For the revised forecast (question #5), use the 12/31/2000 ratio from the "Pct Sales (Marketguide)" worksheet.
Selling, General & Admin (SGA)	Use the TTM SGA/Net Sales ratio from the "PCT of Sales (Disclosure)" worksheet for your initial forecast (question #3). For the revised forecast (question #5), use the 12/31/2000 ratio (SGA + Other Operating Expenses)/Net Sales from the "Pct Sales (Marketguide)" worksheet for the SGA/Sales ratio in the assumption box.
Depreciation and Amortization	Use the TTM Depreciation & Amortization/Net Sales ratio from the "PCT of Sales (Disclosure)" worksheet.
Interest Expense on existing debt	Interest Expense is actual interest expense, not <i>net</i> 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 (Disclosure)" worksheet. Total debt = Notes Payable + Current LT Debt + Current Portion of Capital Leases + Mortgages + Convertible Debt + LT Debt + LT Capital Leases.
Interest Expense on new debt	Wendy's debt rating is BBB+. Assuming that WEN prefers a 10-year maturity, the default spread over a 10-year Treasury bond, as of 9/10/2001 was 186 basis points or 1.86%. The current yield on a 10-year Treasury Bond is 4.84%. Hence, the interest rate is 6.7% (4.84% + 1.86%).
Interest Income	Use the TTM Interest Income/(Cash + Marketable Securities) ratio from the "PCT of Sales (Disclosure)" worksheet.

Line Item	Assumption
Marginal tax rate	37.5%. We arrive at this using an average of the Tax Expense/Income before Taxes ratio from the "PCT of Sales (Disclosure)" worksheet.
Debt Maturing in the Future	Debt maturing in fiscal year 2001 is \$948,000 and in fiscal year 2002 is \$997,000 (Source: 10K). Please be sure to input this as 948 and 997 respectively in the assumption box since the Disclosure numbers are stated in thousands of dollars.
Total Debt/(Total Debt + Shareholder Equity)	Assume that the firm continues to maintain an 18.5% debt to total capitalization ratio (we assume that this is their target capital structure) in the near term. This means that $Debt = (.185/.815)*Equity$. ²
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. ³
Intangibles	Remains constant at the 7/1/2001 level (see WEN 10Q) in forecast period. Note that we are using the most recent figure ("freshest" numbers) available to us as of this writing.
Other Long Term Assets	Remains constant at the 7/1/2001 level (see WEN 10Q) in forecast period. Includes Investments & Advances to Subsidiaries, Other Non-Current Assets, Deferred Charges (that are Assets), as well as Deposits & Other Assets.

² $Debt = .185*(Debt + Equity) = .185*Debt + .185*Equity \Rightarrow Debt - .185*Debt = .185*Equity \Rightarrow .815*Debt = .185*Equity \Rightarrow Debt = (.185/.815)*Equity$

³ 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
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 7/1/2001 level (see WEN 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.