

Building eVal³

INTRODUCTION

This case starts with raw financial statements and then a) develops standardized financial statements, b) constructs a statement of cash flows, c) builds all the key ratios, d) links forecast inputs to future financial statements, and e) builds discounted cash flow and residual income valuation models based on the forecasts. The result is *eVal*, the spreadsheet model that is provided with “Equity Valuation and Analysis” by Russell Lundholm and Richard Sloan, but one that you should completely understand (because you built it yourself!). To save you some time, many of the cells are completed; you only need to finish the blue-shaded ones.

There are five parts to this case, corresponding to the five tasks listed above. The case requires two files: Building eVal.xls and General Mills 10-K.pdf. Both can be found at <http://www.lundholmandsloan.com>.

Part A: STANDARDIZED FINANCIAL STATEMENTS

The financial statements filed with the SEC are not standardized, meaning that the company is free to report and label line items however they please (within obvious limits). For this reason, there is an intermediary business that takes the filed financial statements and sorts the line items into a predetermined set of accounts. We will explore this important part of the reporting process in this part of the case.

- 1) Find the “as reported” financial statements in General Mills’s 10-K filing (in the pdf file). Compare the results with the Financial Statements sheet in Building eVal4.xls. Now compare the “as reported” financial statements with the version found at finance.yahoo.com shown in exhibit 1. How do the different versions of the financial statements compare? What has been lumped together with what?
- 2) The financial statement line items are themselves summary measures. See how much extra detail you can find about 2008 total revenue and other assets by reading the Management Discussion and Analysis on page 14 and the footnotes that follow the financial statements, especially notes 16 and 17 on pages 73-74.

Part B: CREATE A STATEMENT OF CASH FLOWS

- 1) Build the links between the Financial Statements sheet and the Cash Flow Analysis sheet. As an organizing formula, recall that

$$\Delta\text{Cash} = -\Delta\text{nonCashAssets} + \Delta\text{Liabilities} + \Delta\text{Shareholders' Equity}.$$

As you go down the balance sheet line by line, sort each change into operating, investing or financing and be sure you account for the entire change in each line item. Finally, recall that net income, the top line on the statement, is a major source of change in Shareholders’ Equity.

- 2) Compare the finished Statement of Cash Flows in *eVal* with General Mill’s “as reported” Statement of Cash Flows. Why is it different? (hint – don’t attempt to reconcile every item; it isn’t possible).

³ This case was prepared by Professor Russell Lundholm as the basis for class discussion, rather than to illustrate either effective or ineffective handling of a business situation. Copyright ©2010 by Russell Lundholm.

Part C: RATIO ANALYSIS AND CREDIT ANALYSIS

Armed with standardized financial statements, you can now create a sheet that computes all the usual ratios of financial statement analysis. To help with the computation of the Advanced Dupont Ratios, below the standardized financial statements on the Financial Statements sheet there are computations of the following: net operating income, net financial expense, net operating assets and net financial obligations. Be sure that net operating income less net financial expense equals net income and that net operating assets less net financial obligations equals common equity.

- 1) Open Building eVal.xls and derive all the ratios on the Ratio Analysis sheet by linking back to the Std Financial Statements sheet. You only have enough data for General Mills to do the most recent year.

Part D: LINKING FORECASTS TO FUTURE FINANCIAL STATEMENTS

- 1) Enter the following forecasts in the yellow cells on the Forecasting sheet. For Sales, enter 5% for all years. For all other yellow cells, enter the same value as the most recent historical year (you can simply cut-and-paste the value).
- 2) On the Forecasting sheet the yellow cells you just filled in are ratios that imply future financial statement values. Your task is to figure out these future financial statement values and create links from the Forecasting sheet to the Financial Statements sheet.
- 3) You will note that the ratios on the Forecasting sheet are defined in terms of ending balance sheet amounts, whereas the ratios on the Ratio Analysis sheet are defined in terms of average balance sheet amounts. To see why this is, construct a temporary line on the Forecasting sheet to input the ratio of Average Receivables/Sales and then compute the resulting ending Receivables balance each year. Set this ratio to 15%. Now compare the ending balance from this method of forecasting with the ending balance from *eVal* (again assuming a 15% ratio), preferably by plotting the two resulting series. Notice anything funny about the implied balance when the average receivables are used as the basis for forecasting?

Part E: VALUATION

- 1) Compute the value of General Mills as of July 1, 2008 using the discounted cash flow model. Do so by linking to the statement of cash flow data, or directly to the financial statement data. Set the cost of equity capital, debt capital and the weighted average cost of capital at 10%, 8% and 8.96%, respectively, as given on the spreadsheet.
- 2) Compute the value of General Mills as July 1, 2008 using the residual income model. Do so by linking to the financial statement data. Set the cost of equity capital, debt capital and the weighted average cost of capital at 10%, 8% and 8.95%, respectively, as given on the spreadsheet.
- 3) Make sure your answers to the two questions above are both \$58.34 per share (or within a few cents of this amount).

Exhibit 1

Income Statement

Get Income Statement for:

View: [Annual Data](#) | [Quarterly Data](#)

All numbers in thousands

Period Ending	2010-05-30	2009-05-31	2008-05-25
Total Revenue	14,796,500	14,691,300	13,652,100
Cost of Revenue	8,922,900	9,457,800	8,778,300
Gross Profit	5,873,600	5,233,500	4,873,800
Operating Expenses			
Research Development	-	-	-
Selling General and Administrative	3,236,100	2,951,800	2,625,000
Non Recurring	31,400	41,600	21,000
Others	-	-	-
Total Operating Expenses	-	-	-
Operating Income or Loss	2,606,100	2,325,000	2,227,800
Income from Continuing Operations			
Total Other Income/Expenses Net	-	84,900	5,300
Earnings Before Interest And Taxes	2,204,500	2,027,100	2,233,100
Interest Expense	-	390,000	427,000
Income Before Tax	2,204,500	2,027,100	1,806,100
Income Tax Expense	771,200	720,400	622,200
Minority Interest	(4,500)	(9,300)	-
Net Income From Continuing Ops	1,530,500	1,389,300	1,294,700
Non-recurring Events			
Discontinued Operations	-	-	-
Extraordinary Items	-	-	-
Effect Of Accounting Changes	-	-	-
Other Items	-	-	-
Net Income	1,530,500	1,304,400	1,294,700
Preferred Stock And Other Adjustments	-	-	-
Net Income Applicable To Common Shares	1,530,500	1,304,400	1,294,700

Currency in USD.

Balance SheetGet Balance Sheet for: View: [Annual Data](#) | [Quarterly Data](#)

All numbers in thousands

Period Ending	2010-05-30	2009-05-31	2008-05-25
Assets			
Current Assets			
Cash And Cash Equivalents	673,200	749,800	661,000
Short Term Investments	-	23,400	-
Net Receivables	1,084,300	969,000	1,081,600
Inventory	1,344,000	1,346,800	1,366,800
Other Current Assets	378,500	469,300	510,600
Total Current Assets	3,480,000	3,534,900	3,620,000
Long Term Investments	-	473,100	404,800
Property Plant and Equipment	3,127,700	3,034,900	3,108,100
Goodwill	6,592,800	6,663,000	6,786,100
Intangible Assets	3,715,000	3,747,000	3,777,200
Accumulated Amortization	-	-	-
Other Assets	763,400	895,000	1,345,400
Deferred Long Term Asset Charges	-	-	-
Total Assets	17,678,900	17,874,800	19,041,600
Liabilities			
Current Liabilities			
Accounts Payable	849,500	803,400	4,215,600
Short/Current Long Term Debt	1,157,400	1,320,700	450,100
Other Current Liabilities	1,762,200	1,481,900	190,600
Total Current Liabilities	3,769,100	3,606,000	4,856,300
Long Term Debt	5,268,500	5,754,800	4,348,700
Other Liabilities	2,118,700	1,932,200	1,923,900
Deferred Long Term Liability Charges	874,600	1,165,300	1,454,600
Minority Interest	245,100	244,200	242,300
Negative Goodwill	-	-	-
Total Liabilities	12,276,000	12,702,500	12,825,800
Stockholders' Equity			
Misc Stocks Options Warrants	-	-	-
Redeemable Preferred Stock	-	-	-
Preferred Stock	-	-	-
Common Stock	75,500	75,500	37,700
Retained Earnings	8,122,400	7,235,600	6,510,700
Treasury Stock	(2,615,200)	(2,473,100)	(1,658,400)
Capital Surplus	1,307,100	1,212,100	1,149,100
Other Stockholder Equity	(1,486,900)	(877,800)	176,700
Total Stockholder Equity	5,402,900	5,172,300	6,215,800