PUBLIC TICKER COMPARATOR

A TOOL FOR QUICK COMPARISON OF A PUBLICLY TRADED COMPANY TO ITS COMPETITORS

by

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Executive Summary

Financial analysts are often requested to perform financial risk assessments and financial comparisons for a variety of companies including competitors, suppliers, acquisition targets and acquisition market comps. This can be a time consuming endeavor as each company's financials must be obtained, common sized and then compared to each other. Also, a variety of ratios are calculated to aid in understanding each company's performance and comparing those to one another within a similar industry. This analysis tool provides quick access to a series of financial statement analysis tools that provide a quick and effective way to compare the financial performance of any publicly traded company with the performance of several of that company's competitors.

This tool utilizes the free services provided by Yahoo! Finance to retrieve standardized financial information for any publicly traded U.S. company as well as a simple list of competitors. The financial statements for the target company as well as the competitors are retrieved via web query. Information is pulled from each of the statements to calculate the ratios required for performing DuPont, credit rating and Altman Bankruptcy Z-Score analyses. The income statement and balance sheet for the target and competitors are then translated into common size terms in order to allow comparison across companies regardless of the size of the company.

Implementation

- **Data source.** The first portion of this project is accomplished through a series of web queries, one for each of the financial statements (Income statement, Balance Sheet and Statement of Cash Flows)

As seen above the URL for each company and financial statement is can be easily changed for each iteration.

- **Finding competitors.** Yahoo! also has a page for each company that provides some brief competitor information. Using another web query to retrieve the data from this page (see below), the tickers for each of the companies listed are then used to run new queries for the publicly traded competitors.
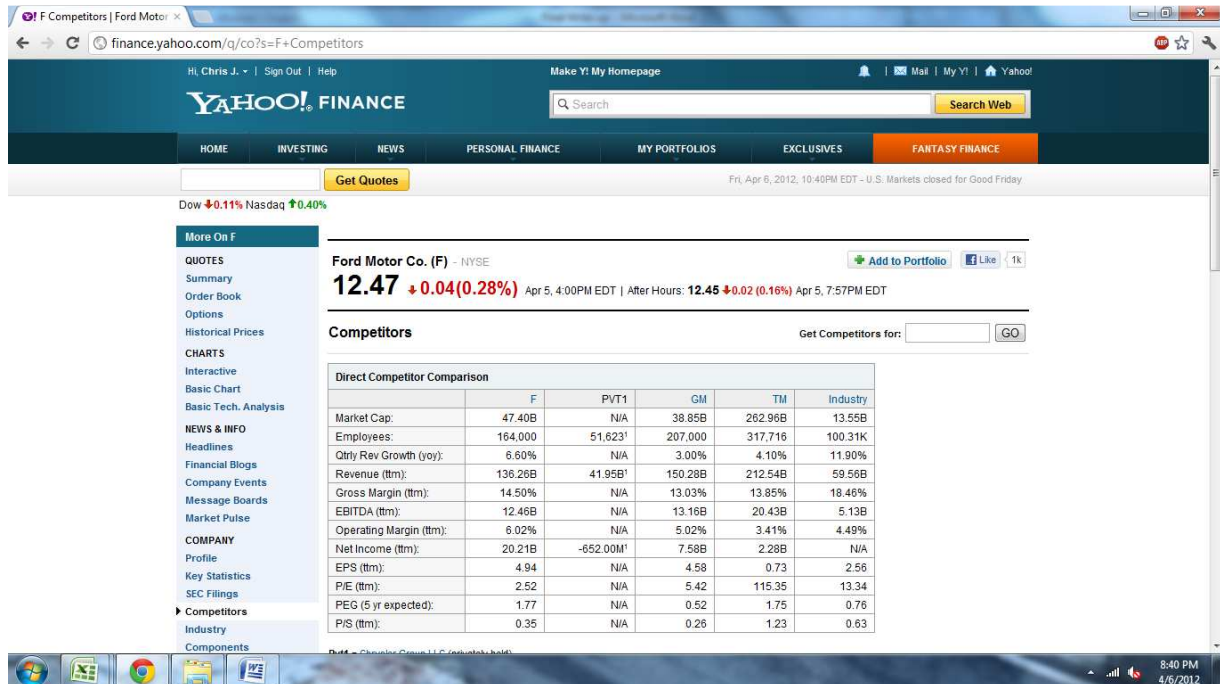
- **DuPont disaggregation analysis.** Once all of the financial statements are in place, data are pulled from the various financial statements for each competitor to provide a full DuPont ratio decomposition. In the DuPont decomposition, the values for each ratio are compared across competitors and the highest values are changed to green and the lowest are yellow/orange. The idea behind using this color coding is to provide an easy way to identify strengths (or weaknesses) of the company relative to the competition.

	DuPont Breakdown	F	GM	TM
RoE		281.62%	20.42%	4.18%
RoA		17.80%	6.80%	1.28%
Asset Turnover		0.79	1.06	0.67
Leverage		23.90	3.82	2.91
RNOA		48.30%	34.10%	2.27%
NOPAT		$14,706,944.37	$34,948,545.45	$5,012,537.36
NOA		$30,448,000.00	$102,500,000.00	$220,525,500.00
NOPM		10.79%	23.26%	2.19%
NOAT		4.48	1.47	1.04
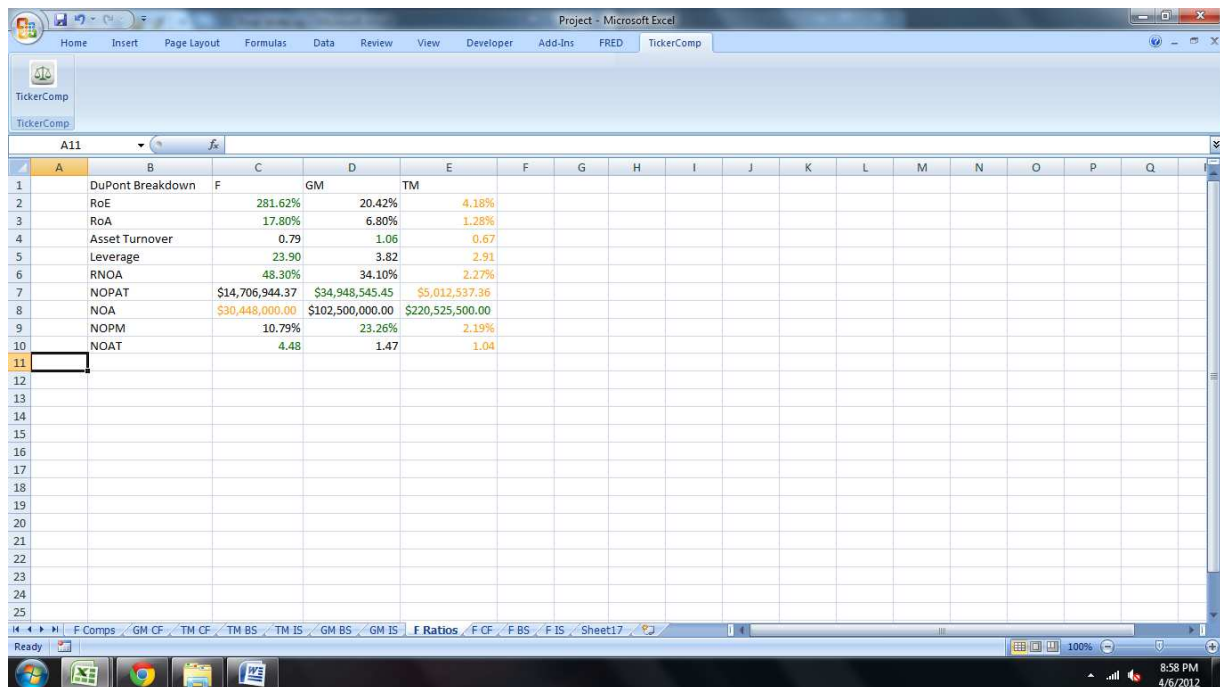
- **Debt rating ratios**. After the DuPont calculations are complete, a similar process is followed for completing a Debt Rating Ratio analysis (where the common ratios used for debt ratings are calculated, compared and color coded) and an Altman Z- Score calculation. The coloring used for the Z-Scores is based on Altman's model for prediction of bankruptcy wherein companies with a score of 3.00 or greater are considered to be at low risk of bankruptcy (colored green) and companies under 1.83 are at high risk of bankruptcy (colored red) companies in between 1.83 and 3.00 are on watch (colored yellow/orange).

- **Creating common size statements and combining onto one page.** The income statement and balance sheet for each company are common sized by dividing each line item by the total revenue (in the case of the income statement) or by total assets (in the case of the balance sheet). The common sized statements are then brought together onto one worksheet for comparison.
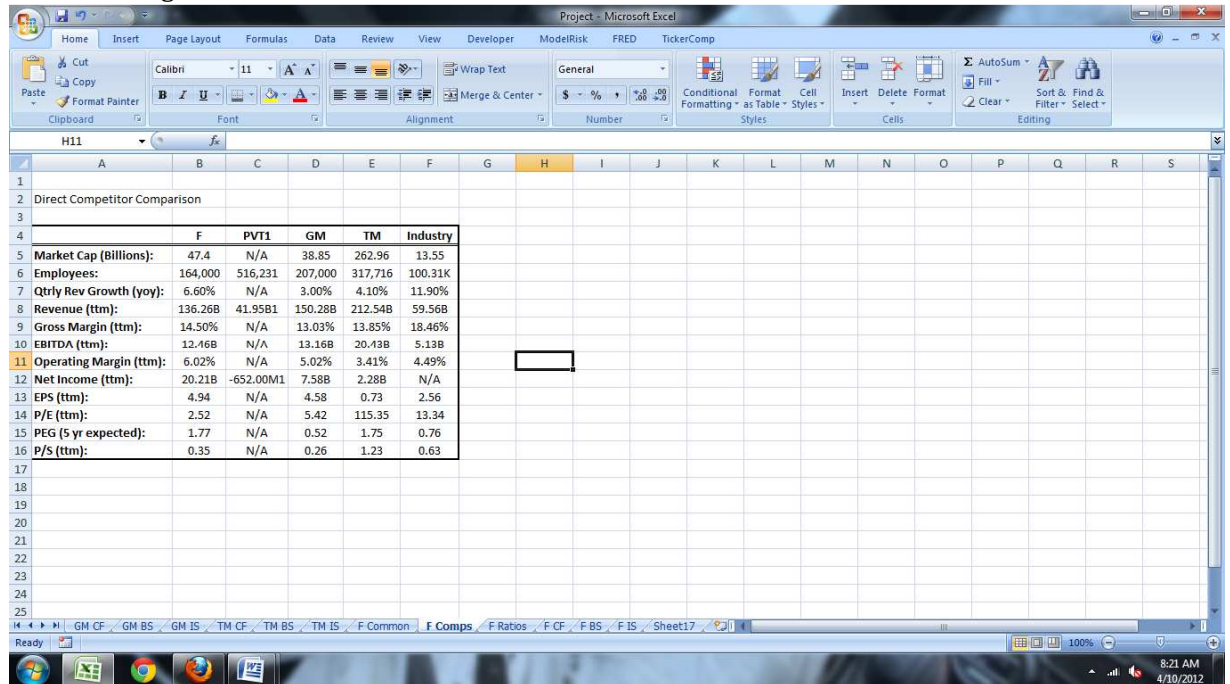
- **Running the project.** To make access to running the analysis easier, a button was placed on the ribbon that calls the ticker entry form. The form asks for the ticker and has two radio buttons that allow the user to have all current worksheets deleted or allow them to remain. This option was provided in case comparisons are being made between companies that are not listed as competitors by the Yahoo! service or if comparisons are made across industries.

First spreadsheet (F Common):

		F			GM			TM		
Period Ending		31-Dec-11	31-Dec-10	31-Dec-09	31-Dec-11	31-Dec-10	31-Dec-09	31-Mar-11	31-Mar-10	31-Mar-09
Total Revenue		100.0%	100.0%	100.0%	100%	100%	100%	100%	100%	100%
Cost of Revenue		83.2%	81.0%	85.0%	87%	88%	108%	87%	88%	90%
Gross Profit		16.8%	19.0%	15.0%	13%	12%	-8%	13%	12%	10%
	Operating Expenses	0.0%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
	Research Development	0.0%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
	Selling General and Administrative	8.5%	9.2%	11.2%	8%	8%	12%	10%	11%	12%
	Non Recurring	0.0%	-0.2%	0.9%	1%	0%	0%	0%	0%	0%
	Others	0.0%	0.0%	0.0%	0%	0%	0%	0%	0%	0%
	Total Operating Expenses									
Operating Income or Loss		8.3%	9.9%	2.9%	4%	4%	-20%	2%	1%	-2%
	Income from Continuing Operations									
	Total Other Income/Expenses Net	0.9%	0.0%	5.0%	1%	1%	123%	1%	1%	0%
	Earnings Before Interest And Taxes	9.6%	10.3%	8.1%	4%	5%	104%	3%	2%	-3%
	Interest Expense	3.3%	4.8%	5.8%	0%	1%	6%	0%	0%	0%
	Income Before Tax	6.4%	5.5%	2.2%	4%	4%	98%	3%	2%	-3%
	Income Tax Expense	-8.5%	0.5%	-0.1%	0%	0%	-2%	2%	0%	0%
	Minority Interest	0.0%	0.0%	0.0%	0%	0%	0%	0%	0%	0%

Second spreadsheet (F Ratios):

	DuPont Breakdown	F	GM	TM			Debt Rating Analysis	F	GM	TM	
2	RoE	281.62%	20.42%	4.18%			EBITA/Avg Assets	7.64%	6.79%	2.64%	
3	RoA	17.80%	6.80%				EBITA/Int Exp	2.96	17.81	25.57	
4	Asset Turnover	0.79	1.06					9.62%	6.40%	3.95%	
5	Leverage	23.90	3.82					8.35%	3.76%	2.47%	
6	RNOA	48.30%	34.10%					3.21	16.12	69.99	
7	NOPAT	$14,706,944.37	$34,948,545.45	$5,012,53				9.83%	66.75%	15.59%	
8	NOA	$30,448,000.00	$102,500,000.00	$220,525,50				9.83%	74.24%	16.68%	
9	NOPM	10.79%	23.26%					5.84	1.01	12.69	
10	NOAT	4.48	1.47					0.87	0.24	0.56	
11								1.09	2.48	2.31	
12											
13	Altman Z-Score	F	GM	TM				A/Avg Assets	EBITA/Int Exp	EBITA Margin	Operating Margin	(FFO + Int Exp)/Int
14	WC/TA	-0.07	-0.34					20.90%	17	17.80%	16.00%
15	RE/TA	0.07	0.05					19.40%	13.4	19.00%	18.80%
16	EBIT/TA	0.07	0.04	0.02			A	14.10%	8.1	18.10%	16.10%
17	MVEQ/TL	0.29	0.36	1.15			Baa	10.90%	5.6	13.90%	12.70%
18	Sales/TA	0.76	0.98	0.71			Ba	10.00%	3.5	12.70%	11.60%
19	Z-Score	1.19	1.00	1.58			B	7.30%	1.5	9.50%	8.60%
20	% prob of Bankruptcy	42.52%	50.11%	28.15%			C	2%	0.3	2.40%	1.60%

Learning and Difficulties

- One of the biggest initial problems I encountered was how to retrieve and work with the list of competitors. The web query was relatively simple but once I had the data in place I made an interesting realization.

Each company has three competitors and industry stats listed. The problem was that the method I developed was pulling all of the entries. Some of the entries are listed as PVT (meaning a company that is not publicly traded) which prevented me from using the ticker so I had to set up filters so my project didn't try to pull the financials for these companies. The Industry entry presented a similar problem and the solution for the Industry was easily included.

- The second learning point came when trying to improve the usability of some of the comparison tables. I wanted a way to make the company with the highest and lowest values in for a given ratio to have attention drawn to it. Adding this functionality required searching across a range identifying the highest and lowest values and then applying formatting to those cells. Also, since I wanted to be efficient in my code length (where possible) I decided to make this work in a loop that would identify the cells to search across and advance row by row until the end of the table was reached. Below is a sample of the code used for the DuPont disaggregation table:

```
Sheets(dpSheet).Activate
  Range("B2").Select
  Range(Selection, Selection.End(xlDown)).Select
  count = Selection.Rows.count
  r = 2

Do Until r = count + 2
Cells(r, 2).Select
```

```
Range(Selection, Selection.End(xlToRight)).Select
Selection.FormatConditions.AddTop10
Selection.FormatConditions(Selection.FormatConditions.count).SetFirstPriority
With Selection.FormatConditions(1)
   .TopBottom = xlTop10Top
   .Rank = 1
   .Percent = False
End With
With Selection.FormatConditions(1).Font
   .Color = 26112
   .TintAndShade = 0
End With
Selection.FormatConditions(1).StopIfTrue = False
r = r + 1
Loop
```

- In class we discussed use of variables that were exclusive to the sub procedure in which they were declared as well as public and global variables. I had not come to realize the full importance of these variables until I was working on this project and at various stages needed to transfer information between the many tabs that I created that take on slightly different names based on the ticker for the company or competitor. I found it necessary to be able to call the sheets from within different sheets at first I tried just passing the ticker to each sub procedure as it ran but then when it came to run the sub that dealt with comps but needed to place information on one of the ratio pages I realized that moving some of the sheet name variables to the public level would allow me to use consistent language and not have to carry variables through each procedure.

- Another item of code that I found interesting and provided a learning opportunity came when I was trying to set up code to query the competitors' information and pull their data for the ratios. My solution to this problem was to use a loop that runs the series of subs that perform the necessary actions for the subs. Each time the loop runs it sends one ticker from the array that holds the tickers.

```
Do Until x = 3

compsData comps(x)
compsDupont comps(x)
commonComps comps(x)

x = x + 1
Loop
```

  Also, since not all of the tickers that are listed when the competitor information is initially pulled are actually for publicly traded companies each sub was given a short line of code to eliminate the possible non-valid tickers. Pervious to this project I had not really thought about combining an array with a loop and sending variables in this combination. I found it to be a very efficient way to perform the same actions several times without trying to write separate procedures for each comp.

- A final, somewhat minor, learning point for me came when I wanted to make the tables look more professional and decided to add borders. This was not something that was complicated or challenging to figure out but it was something that I had not yet done. In

order to accomplish this formatting I recorded a macro where I performed the formatting on one table using the end-arrow key combinations to select the table then copied the macro for each of the tables I wanted to format and changed the starting cell reference. It is worthwhile to note that the number of companies in each table will changed based on the presence of PVT companies in the comp list.

Assistance

I did not receive substantial help from any person or persons (outside of class instruction and Google) in completing this project.