Stock Price Graphing Assignment

**S**et up a spreadsheet to analyze a portion of the computer industry. The data you use can be retrieved from Yahoo! Finance:

* Go to <http://www.yahoo.com>
* Click on Finance <http://finance.yahoo.com>
* Mouse over Investing, Industries <http://biz.yahoo.com/ic>
* Click on Complete Industry List <http://biz.yahoo.com/ic/ind_index.html>
* Select the industry that is assigned to you from the following list, e.g.
  + Application software
  + Business software & services
  + Communication Equipment
  + Computer Peripherals
  + Data Storage Devices
  + Diversified Computer Systems
  + Internet Information Providers
  + Telecom Services – Domestic
  + Networking & Communication Devices
  + Semiconductor – Broad Line

**F**ind the top companies in the industry in terms of Market Capitalization (each member of your group will later analyze one of these). Set up a table in Excel to compare these companies in terms of:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COMPANY | SYMBOL | MKTCAP | ASSETS | LIABILITIES | REVENUE | PROFITS | ROA | ROR | L/A |
| Wal-Mart Stores, Inc. | WMT | 209.02 | $ 151,193,000,000 | $ 89,620,000,000 | $ 348,650,000,000 | $ 11,284,000,000 | 7.5% | 3.2% | 59.3% |
| Target Corp. | TGT | 41.45 | $ 37,349,000,000 | $ 21,716,000,000 | $ 59,490,000,000 | $ 2,787,000,000 | 7.5% | 4.7% | 58.1% |
| Costco Wholesale Corp. | COST | 28.37 | $ 19,606,586,000 | $ 10,983,245,000 | $ 64,400,155,000 | $ 1,082,772,000 | 5.5% | 1.7% | 56.0% |
| Family Dollar Stores, Inc. | FDO | 2.78 | $ 2,605,090,000 | $ 1,473,824,000 | $ 6,834,305,000 | $ 242,854,000 | 9.3% | 3.6% | 56.6% |

**L**ook at the “Leaders in Market Capitalization” – there should be roughly 10 companies in the list. Set up a table with each company and their value in market capitalization. Create a Pie Chart using these values to assess how “concentrated” the market is in this industry. Only show the top 4 companies, summing up the remaining companies into an “Other” category before you create the chart.

|  |  |
| --- | --- |
| **Company** | Billions |
| Walmart | 211.2 |
| Target | 42.6 |
| Costco | 29.0 |
| Family Dollar | 2.9 |
| Other | 8.9 |
|  |  |
| Total | 294.6 |

**S**et up a sheet so you can compare the Stock Price performance of your company to the Dow Jones Industrial Average. Compute the 14 day moving average. Put your company’s Adjusted Closing price, the 14 moving average, and the same of the DJIA on a line chart. Use the “secondary axis” for your company so you can make a comment about the trend since the start of the year.

**R**ead a bit about this industry and some of the top companies (e.g. look at the industry and company profiles)

Compare your findings to those of your group members. What are some key issues/findings that you can address?

Looking at all this data, write a page or two executive summary highlighting the key findings and/or outlook for this industry and company that you have studied. You may want to embed portions of your spreadsheet to enhance the effectiveness of the report.

**W**hen you have completed all your work, make sure you link this to your web page.

Each group will turn in a report with:

* A title page listing the Industry analyzed, the companies and students responsible for analyzing them
* The one or two page executive summary described above
* Key data/charts to back up the executive summary, for example, you could compare the relative stock price performance from the 1st of the year (or 1 year ago) for each company & the DJIA on a chart
* The detail data for each company (see section for each individual student below):

Each individual student must print out and turn in (staple these in order to your company report):

* 1 page of the daily stock prices, DJIA, 14 day moving average, etc.
* 1 chart showing the adjusted closing price vs. DJIA as described above
* 1 page comparing the last 3 years of data (see financial statement overview below)

Financial Statements (finance is the “language of business” – you need to understand this language if you are to understand how to run a business. Financial statements help us to objectively compare one business to another.)

Income Statement – measures sales, expenses and net income (Profit if positive, Loss if negative) over a PERIOD of TIME, e.g. if you add the totals from the income statement from Jan, Feb, and Mar = Qtr 1 income \* 4 quarters = Annual income…

Revenue (also called sales)

Less expenses

Equals EBIT (Earnings Before Income & Taxes)

Less Interest (note: you get to deduct interest BEFORE you pay taxes, which is a benefit)

Equals EBT (Earnings Before Tax)

Less Taxes

Equals EAT (Earnings After Tax or Net Income or Profit/Loss)

Less dividends (note: you pay dividends AFTER taxes, which is how the “double taxation effect” comes in – your investors will have to pay personal income taxes on the dividends they receive – it’s a disadvantage)

Balance Sheet – measures a “snapshot” in time, e.g. the Balance sheet for December = the balance sheet for the 4th quarter = the balance sheet for the year. You don’t “add these up”. A balance sheet shows what “stuff you own” and “how you managed to get it”, e.g. either borrowed money, or sold stock to finance your plant, equipment, etc.

The basic formula for the balance sheet is:

A = L + E

Assets = Liabilities + Equity

Assets and Liabilities are grouped into long and short term categories. NOTE: long term is more than a year, short term is 1 year or less, also called “current”

Assets are things like:

Short term assets: cash, accounts receivable (what people owe you when they buy things on credit), inventory, etc.

Long term assets: the plant & equipment

Liabilities are “debt” instruments, like accounts payable (what you owe others when you buy on credit), notes payable, bonds, etc. While the “interest” you pay is deducted before you pay taxes (therefore an advantage), the disadvantage is that you HAVE to pay it, or the debt holder can take over your company if you don’t pay.

Equity is “stock” – you allow investors to purchase a “share” of your company’s assets. The disadvantage is you pay dividends, which can be subject to “double taxation”, yet the advantage is you don’t have to “declare” (pay) a dividend, so if you didn’t turn a profit this year, it’s ok in the short term.

Financial Ratios: when you look at different companies financial results, you want to compare them BOTH on an ABSOLUTE (e.g. one company has $100,000 in sales, another $1,000,000, therefore company 2 has ten times the sales of company 1) as well as on a RELATIVE basis. Financial Ratios will help us compare companies on a RELATIVE basis.

Profitability Ratios (“Return on” ratios – return = net income or earnings, so you divide Net Income by some items and show as a %)

Profit Margin = ROS = Return on Sales = Net Income / Sales

ROA = Return on Assets = Net Income / Total Assets

ROE = Return on Equity = Net Income / Total Equity

NOTE: DuPont Analysis: NI/S \* S/A = NI/A \* A/E = NI/E

So, profit margin \* asset turnover = ROA \* financial leverage = ROE

Asset Utilization (“Turnover” ratios – Sales divided by various asset categories)

Receivables Turnover = Sales / Accounts receivable

Inventory Turnover = Sales / Inventory

Total Asset Turnover = Sales / total assets (see S/A above)

Liquidity Ratios (do you have enough cash to pay your bills – how “liquid” are you)

Current Ratio = CA / CL (can your current assets cover your current bills)

Quick Ratio = (CA – Inventory) / CL (take out the inventory, because if your business is in trouble, chances are your inventory isn’t desirable)

NOTE: rule of thumb – these should be 1 or higher

Debt Ratios (how much “financial leverage” are you using – the higher the debt ratio, the more risky you are, esp. if you could have a loss. The reward is if you turn a profit, the equity holders get a higher percentage return)

Debt to Asset ratio = Total Debt (Liabilities) / Total Assets

TIE = Times Interest Earned = Operating Income (EBIT) / Interest

NOTE: TIE should be over 1 because you need enough money to pay off your interest.

Find the Income Statement and Balance Sheet for your company – look on <http://finance.yahoo.com/>

Use the spreadsheet template to keep track of how much the following items changed from year to year. NOTE: the spreadsheet has the dates from oldest to newest, e.g. 2005, 2006, 2007. Yahoo! Finance shows them in the opposite order 2007, 2006, 2005. Enter your data in the order from oldest to newest (like it is on the spreadsheet).

Sales

EBIT

Interest

Net Income

Assets

Current Assets

Inventory

Liabilities

Current Liabilities

Equity

Compute the financial ratios for each year. Write a few comments about the financial performance of your company.

Next, select the Historical Prices link and find the stock price for each company as close to January 1st and December 31st as you can (e.g. stock trading doesn’t occur on the Jan 1st holiday, so it might be Jan 2nd, etc.).

Suppose you had $10,000 at the start of the year.

* How many shares of each company could you have purchased on 1/1?
* How much would the investment have been worth on 12/31?
* How much would this investment have changed in both absolute dollar and percentage terms?