

# Brain Teasers

*If a stock starts at a price of  $p$  and then goes up  $x\%$  then down  $x\%$ , is its price greater than, less than, or equal to  $p$ ?*

*There are three tigers, three men, one boat, and one river. All three men, and one tiger (who went to driving school), can drive the boat. The boat can hold two individuals. If there are more tigers than men on either side of the river, the tigers will eat the men.*

*How can you get everyone across from one side of the shore to the other, without anyone dying?*



# Introduction to Financial Fundamentals

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# Agenda

- I. Financial Terminology
- II. Accounting Basics
- III. Questions



# Terminology

**Security** - A financial instrument that represents ownership, a creditor relationship, or rights to ownership.

**Stock** - A type of security which signifies a stake of ownership in a corporation.

**Share** - The most basic unit of a stock

**Exchange** - A marketplace for financial instruments; Helps match buyers and sellers.

**1. Stock Exchange** - A marketplace for stock which matches buyers and sellers (ex. US NYSE and NASDAQ)

**2. Ticker** - An abbreviation for a firm in exchanges.

**Alphabet Inc. (GOOG)**

NasdaqGS - NasdaqGS Real Time Price. Currency in U

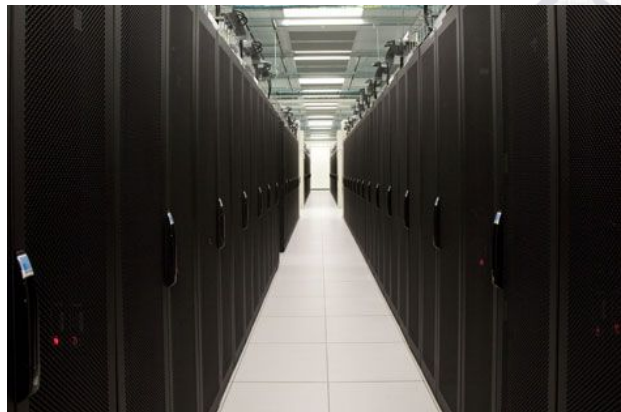
**1,048.20** -7.60 (1.13%)

As of 10:32AM EST. Market open.





# The Real NYSE



NYSE's Data Center is in...  
Mahwah, New Jersey



# Yahoo! Finance Summary Tab

**3. Price** - The value of share of stock.

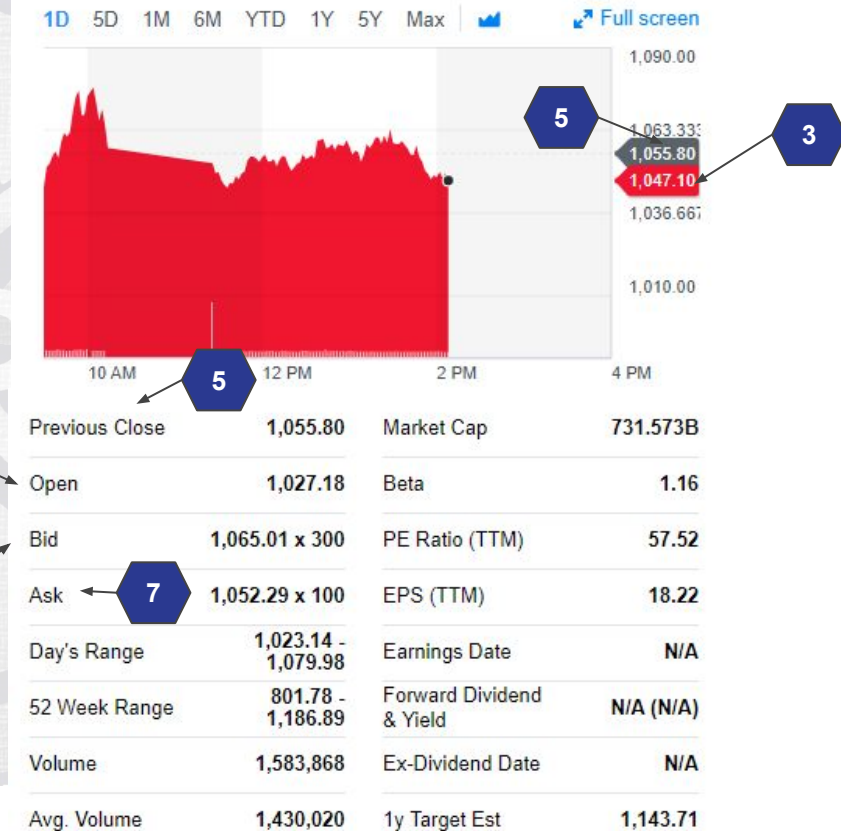
**4. Open ("Opening Price")** - The price at which a security first trades upon the opening of an exchange on a given day.

**5. Previous Close** - The price at which a security traded upon the "close" of an exchange on the previous day of trading.

**6. Bid Price** - The price an investor would sell a stock on an exchange.

**7. Ask Price** - The price an investor would buy a stock on an exchange.

Note: **Bid-Ask Spread** - Ask price minus bid price.



# Yahoo! Finance Summary Tab (cont.)

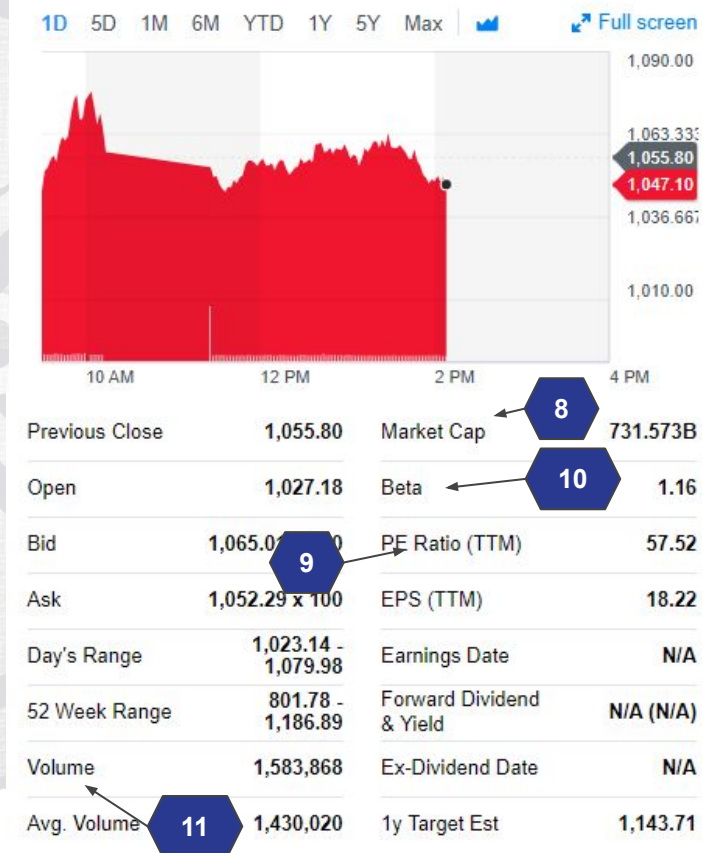
**Shares Outstanding** - The number of shares a company held by all shareholders.

**8. Market Cap** = Share Price \* Shares Outstanding

**9. P/E Ratio** - the ratio for valuing a company that measures its current share price relative to its per-share earnings.

**10. Beta** - a measure of the *volatility*, or *systematic risk*, of a security or a portfolio in comparison to the market as a whole; Covariance (Security Price, Index) / Variance (Index)

**11. Volume** - the number of shares traded in a given period of time.





# Yahoo! Finance Statistics Tab - Valuation

## Valuation Measures

Market Cap (intraday) <sup>5</sup>	731.57B
Enterprise Value <sup>3</sup> ← 12	635.65B
Trailing P/E	57.52
Forward P/E <sup>1</sup>	21.63
PEG Ratio (5 yr expected) <sup>1</sup>	1.22
Price/Sales (ttm)	6.60
Price/Book (mrq)	4.78
Enterprise Value/Revenue <sup>3</sup>	5.73
Enterprise Value/EBITDA <sup>6</sup> ← 13	17.76

**12. Enterprise Value (EV)** - The total value of a company to all investors (debt and equity holders).

**13. EV / EBITDA** - Oftentimes a better metric than P/E for comparing companies.

**Return** - the gain or loss of a security in a particular period, usually quoted in percentage form

**Alpha** - gauges the performance of an investment against a market index used as a benchmark, since they are often considered to represent the market's movement as a whole. The excess returns of a fund relative to the return of a benchmark index is the fund's alpha.



# Other Terminology

**Liquidity** - How easy it is to find a buyer or seller for a security.

**Portfolio** - A collection of securities.

**Small, Mid, and Large “Cap”**

**Index** - A constant collection of stocks which are used to assess financial health in an economy.

**DOW** - an index of 30 large U.S.-based publicly traded companies.

**NASDAQ** - an index of ~3000 publicly traded companies

**S&P 500** - an index of “500 large cap” companies

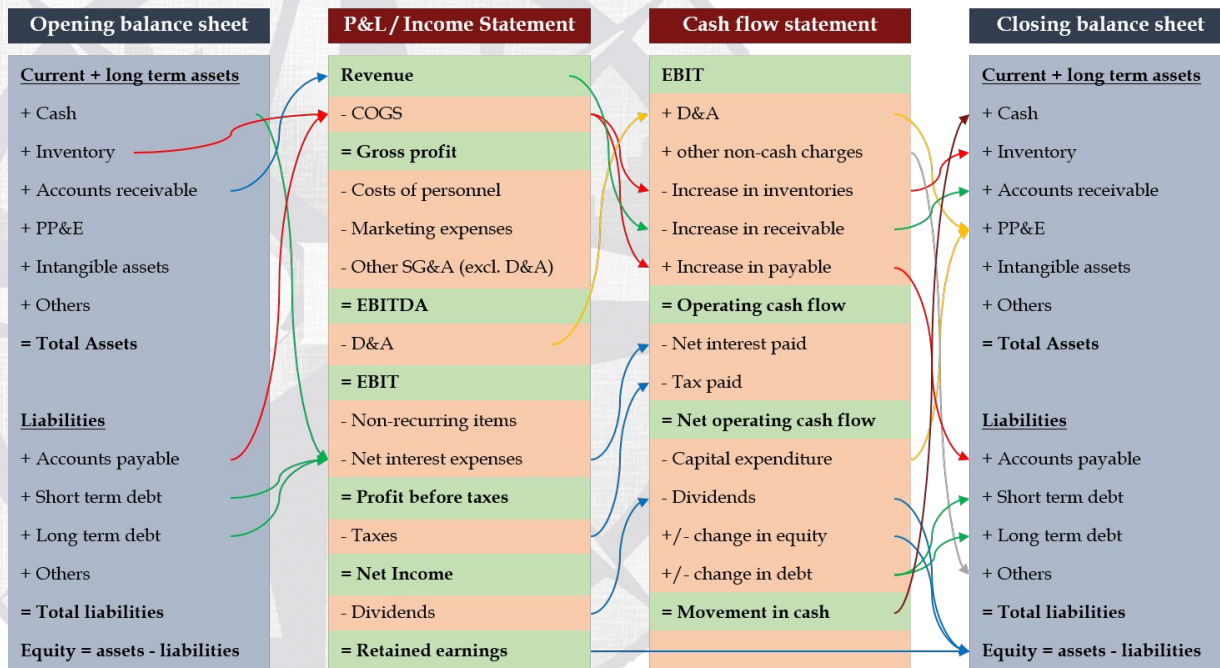


# Accounting Basics

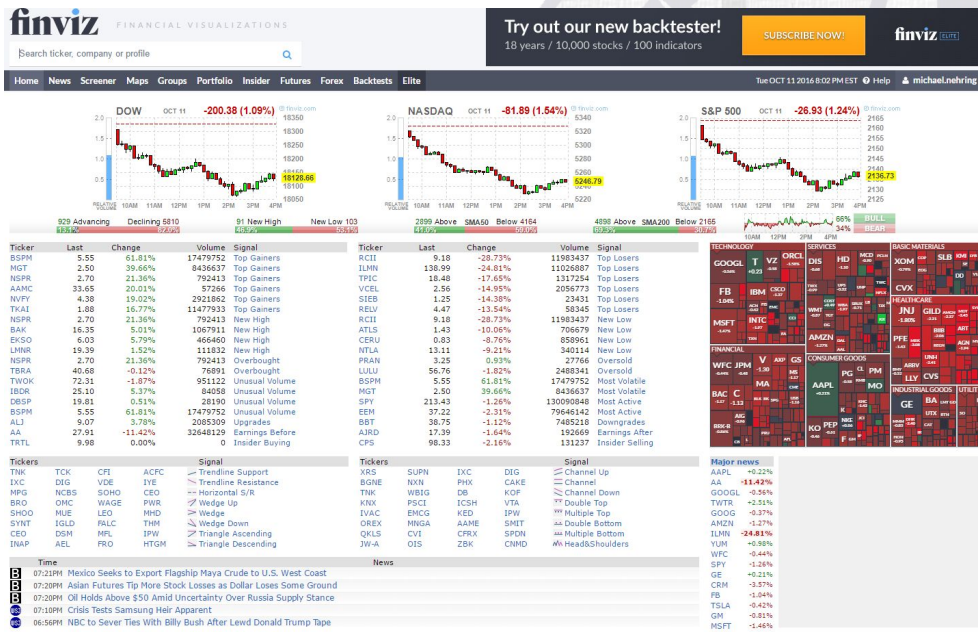
**Balance Sheet** - A snapshot of a firm's financial position. Made up of assets, liabilities, and shareholders equity.

**Income Statement** - The revenues and expenses of a firm over a given period of time (usually quarterly or annually).

**Cash Flow Statement** - The sources and uses of cash of a firm over a given period of time (usually quarterly or annually).



# Recommended Finance Resources



- **Investopedia** (to explain financial concepts and terms)
- **Morningstar** (to get in depth company financial reports)
- **Quandl** (API to use and query financial data)
- **EDGAR** (SEC Database of all federally required company reports)
- **Marketwatch/Investopedia Simulator** (for testing investing ideas in a paper money game to see how your strategy performs)
- **Wall Street Journal** (for testing investing ideas in a paper money game to see how your strategy performs)
- **Yahoo! Finance, Google Finance, and Finviz** (for finding financial metrics)

(Screenshot of Finviz)



Questions on Part 1?