Week 9 – Relative Valuation

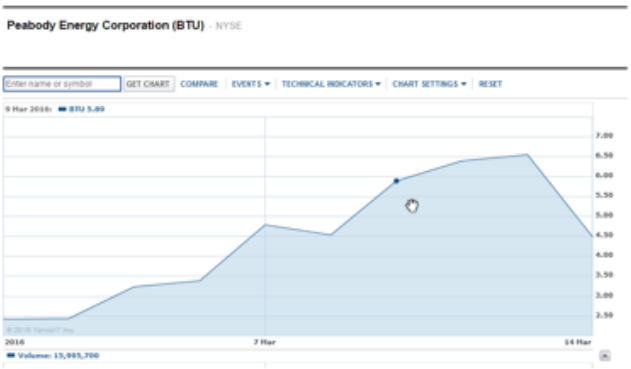
Introduction – What is relative (multiple) valuation?

- A method that allows us to calculate the value of an asset by comparing it to values assessed by the market for similar or *comparable* assets.
- There are two main classes of ratios:
  1) Enterprise value multiples: relate to the total market value of all sources of a company's capital to a measure of fundamental value for the entire company.
     - e.g. EV/EBITDA, EV/Sales, EV/FCFF
  2) Price multiples: are ratios of a stock's market price to some measure of fundamental value per share.
     - e.g. P/E, P/Book, P/FCFE

Relative Valuation – Intuition

- The intuition behind (price) multiples is that investors evaluate the price of a share of stock and judge whether it is fairly valued, overvalued, or undervalued by considering what a share buys in terms of per share earnings, net assets, cash flows etc...
  - Similar logic can be applied to enterprise-based multiples.
  - In a sense multiples work on the "law of one price" economic principle (arbitrage). Arbitrage takes a series of cash flow and if the risk associated with earning the cash flow is the same, you should have the same underlying value as the cash flow. If you have the same risk and return mechanics, the price associated with the mechanics should be the same irrespective of what as it is. Anything that is not connected to risk or return doesn't affect stock value.
  - Law of one price works reasonably well in fixed income securities but not for equities due to imperfect capital markets – transaction cost, information symmetry etc.
    - Should it?
  - Stocks cannot be viewed in isolation.
  - Rather they are evaluated on what they buy in terms of earnings, assets, etc...
  - For example, a P/E ratio of 10 means that it takes 10 units of currency to purchase one unit of earnings. This standardisation thus allows us to compare stocks. It is the expectation of the future that the firm will have higher earnings.

The arbitrage mirage (Peabody Energy Corp (March 2016)



The bond graph shows that the firm is going bankrupt and the equity graph shows there is potential growth. Peabody Energy was the largest (private sector) coal company in the world.

- On April 13, 2016 it filed for Chapter 11 bankruptcy protection so arbitrage does not work in equity market well.

How can multiples help you?

Multiples can assist in:

1) Testing the plausibility of the forecasted cash flow

2) Identifying disparities between a company's performance and those of its competitors

3) Identifying which companies the market believes are strategically positioned to create more value than other industry players. It determines whether the share is trading at a discount or at a premium.

› Multiple analysis is useful only when performed accurately. Poorly performed multiple analysis can lead to misleading conclusions.

› Comparable set is the real driving factor and this is the problem of relative valuation as it does not tell you something is cheap in absolute term so it is cheap relative to the comp set you are comparing to. However, valuation can form a reasonable analysis.

A simple example

› Company A's EPS is $1.50. Its closest competitor, Company B, is trading at a P/E ratio of 22. Assume that the companies have similar operating (risk) and financial profile (capital structure).

1. If Company A's stock is trading at $37.50, what does this indicate about its value relative to Company B?

2. If we assume that Company A's stock should trade at about the same P/E as company B's stock, what will we estimate as an appropriate price for Company A's stock?

Solution to (1): If company A's stock is trading at $37.50 its P/E will be 25. If the companies are similar it indicates that A is overvalued relative to B.

Solution to (2). If A should trade at B's multiple (22) then the appropriate price for A should be $33.

Who uses Relative Valuation?

- Just about everyone that undertakes some form of valuation analysis will use relative valuation. Why?
  - There are many advantages - ease of calculation, clear investment decision, easier to sell. (See lecture 1 for advantages and disadvantages)
  - Almost 9/10 research equity reports will use multiple analysis.
  - There are loads of "rules of thumb" that an analyst is expected to learn:
    - e.g. PEG Ratio < 1= cheap, P/Book Ratio < 1 = cheap, EV/EBITDA < 6 = cheap
    - Remember, the differences between DCF and relative analysis. If book value is higher than market value of equity, the market suggest that it is a distress firm.
  - It can be quite confusing to see relative analyses dressed up as DCF analyses.