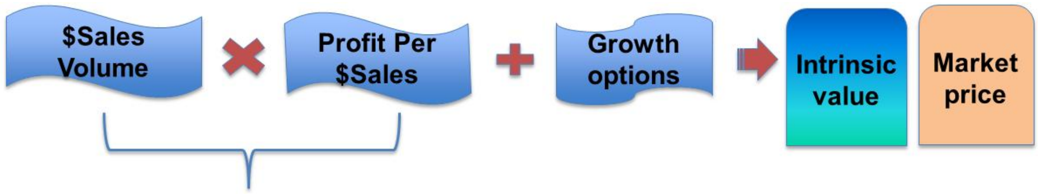
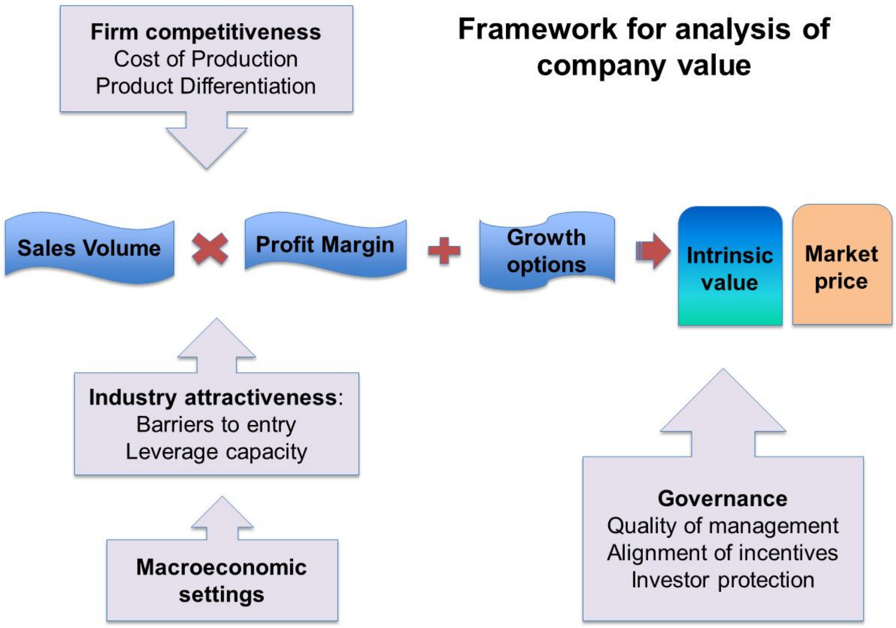
Week 7: Fundamental Analysis – Economic & Industry Factors



Sales volume x profit margin
is free cash flow
Expected free cash flow is discounted to
yield present value of future cash flows

$$P \equiv \sum_{t=1}^{\infty} \frac{E[CF_t]}{(1+E[R])^t} + GrowthOptions$$

NB: DCF does not work well in valuing growth options. A "real options" approach is better. We review "real options" approach later in semester.



- Growth options provide potential for future growth in profits
    - GROWTH OPTIONS valuable only if the company can capture profits
    - Usually difficult to estimate CFs from 'growth options'
    - option valuation method used rather than DCF

Misconceptions about valuation

1) Objective search
2) Precise estimate of value
3) More quantitative models – better

Gov Response to Economic Growth and Share Prices

1) Policy changes (fiscal policy) – i.e spending to stimulate (stimulus package after GFC = $10.4bn)
2) Monetary policy (QE)
   a. Less risk averse
   b. Though, people are investing in low risk 'safe' financial assets with bond like characteristics
   c. Defeats purpose of QE
   d. Rich get richer
   e. Bank stocks
   f. Not going to the right place

Economics and Industry Effects

- Share price reflect PV of expected profits
- If market indices rise, it doesn't imply that good economic times are ahead. 2 reasons:

  1) If economic growth stalls then Central Bank (RBA) may take action by lowering interest rates to stimulate growth or increasing interest rates to reduce inflationary pressures
     - we are in a period where economic growth in developed economies is weak but interest rates are close to zero so main weapon of central banks to combat weak economic growth is ineffective
     - We are in a LIQUIDITY TRAP; many investors prefer to hold cash rather than invest (monetary policy is ineffective in stimulating demand) = when RF rate is zero (i.e BOND YIELD used as a proxy for RF – not RBA borrowing rate), QE is ineffective

  2) Economic growth may not benefit existing companies if low barriers to entry in an industry allows new entrants to share in the profits, or if labour costs increase, or consumers gain all the benefits via lower prices and higher quality products

Economic Growth and Company Valuation

- Economic growth affects company value via its effects on growth options, E[CFs] and E[R]

Growth options

- When high economic growth expected, investors value companies developing growth options (provided companies capture that profit)
- In recession, investors prefer profits to be distributed to them rather than retained by the company for further investment
- Often tension between management's and investors view of future
  - Management may think investors are too focused on short-term and crippling growth options by demanding distribution of profits

- Investors may think managers are excessively optimistic or want to EMPIRE BUILD at their expense
- Growth options may be developed via investments that provide the company with a competitive advantage in earning profits in the future
- If companies are well placed to make those investments = don't distribute all FCFs to investors. Retain some
    - If not, company creates more value returning FCFs to investors
    - Example: Wesfarmers

Economic growth and expected return, E[R]

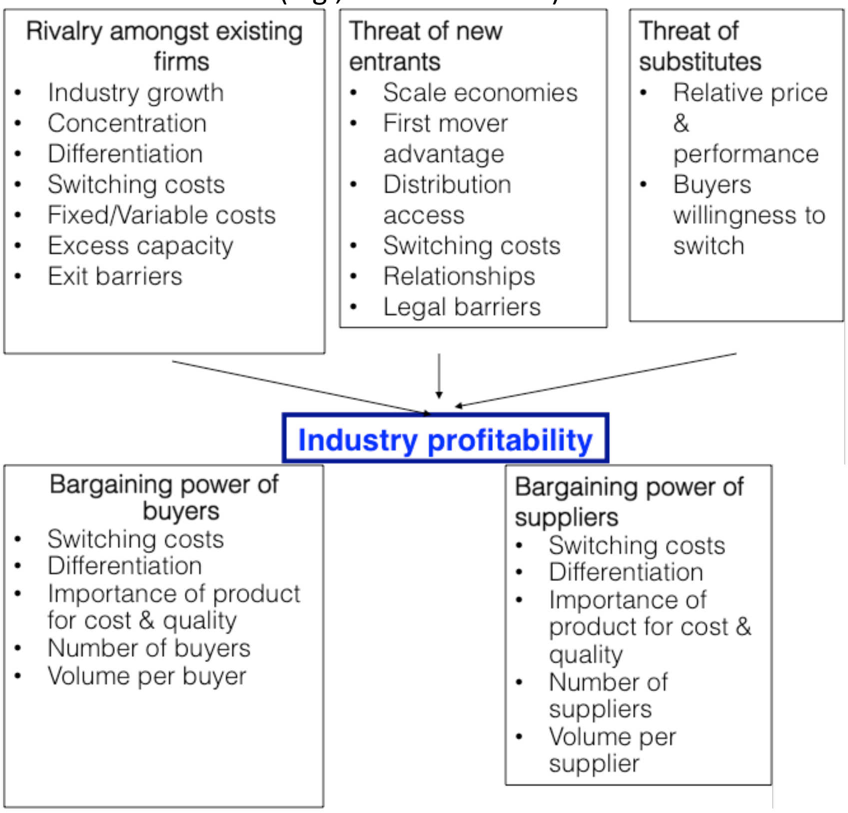
- E[R] = risk free rate plus risk premium
- When investors' risk aversion increases so does risk premium
- Risk is relative. Less risky assets gain value when risk aversion increases, while riskier assets lose value

Industry Analysis: banking and mining sectors

The forces of supply and demand affect all industries but they way they exert their force differs across
industries. It is important to understand the drivers of profitability in each industry

. – This point is illustrated by a review of the economics of the banking and mining sectors

. – Michael Porter's five-forces framework is a classic analytical concept. There is insufficient time to address it in detail in Investment Analysis but you are expected to research it (e.g., via the internet).



Australian Bank Case Study

Are Australian Banks overvalued?

Firm competitiveness: four banks Westpac, ANZ, CBA, NAB control most banking; very hard for new entrants. There is some risk of intra-industry competition but as a group the four are secure.

- Industry attractiveness: High barriers to new entrants and Govt. offers an implicit and credible guarantee so the four banks have low borrowing costs for funds from overseas.
- Growth options are limited except for risky overseas expansion
- Quality of management: The opaqueness of bank financial statements makes it hard to assess how well management is handling risk (e.g. exposure to foreign exchange risk). At present, investors seem confident the big four banks are low-risk.

The perceived stability of the big 4 Australian banks' profits and their high dividends makes them attractive to investors, even though they have low growth options. Bank shares are perceived to have bond security characteristics

Banks are vulnerable to (a) an increase in risk appetite when investors seek companies with growth options and (b) a hidden risk threatening their profits

Mining Sector

Supply of natural resource reserves is a function of discovered reserves, technology and price.

- "Finite" supply is a red herring. (see "What if we never run out of oil?" *The Atlantic* April 2013)
- Normal discount rates make it uneconomic for resource companies to be concerned about looking for reserves more than 10 years out.
- Supply of natural resources is "lumpy"
- due to large capital costs in bringing on new capacity and large step changes in total output when new mines/fields brought into production
- One implication is that supply does not adjust quickly to changes in demand; price carries all the burden of adjustment in the short run
- Demand is a function of size of economy and growth but is not reliably predictable

Implications

- Lumpy supply and unpredictable demand characteristics of natural resources means that the sector is typified by "booms and busts" when, as is frequently the case, supply and demand is mismatched
- Currently, demand seems low relative to recent past but in not-so-distant past demand was much lower relative to supply
- It is more rather than less likely that the cycle will turn so that supply exceeds demand as mines/fields open in response to high prices