Lecture 4: Reformatting

- Exam – only 2 questions that can be asked on reformatting:
  - Why do we reformat?
  - How do we reformat?
- Can't do ratios from thin analysis – must reformat
- We create value when we earn a return greater than the cost of capital
  - Cost of capital measures risk
- In historical ratios, if there is a BS item, you must ALWAYS average it (TY + LY / 2)
  - The income item that we're calculating the return from a period of time whereas the BS is beginning and end → acknowledging investment might not be constant

Ratio Analysis

- We are looking for <u>value</u>, and how the firm can <u>create value</u>
- A firm's value is determined by its ability to earn a return greater than the cost of capital
- A firm's value is therefore determined by its profitability and growth

Measuring Overall Profitability – Return on Equity

- Ro = 1 + % rate (ie 8% cost of capital = 1.08)
- The start point is ROE
- ROE = Net income / SE
- A firm's value is determined by its ability to earn a return greater than the cost of capital
- Therefore, a firm's value is determined by the relation between ROE and its cost of equity capital (r_e)
- Comparing ROE with r_e also gives an indication of future profitability:
  - Long run competitive equilibrium
  - Deviations: industry conditions / competitive strategy / accounting distortions
- ROE is affected by:
  - How profitably it employs its assets
  - Leverage
- ROE can be expressed as: (these are all you can do if you don't reformat the FS)

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholders' Equity}}$$

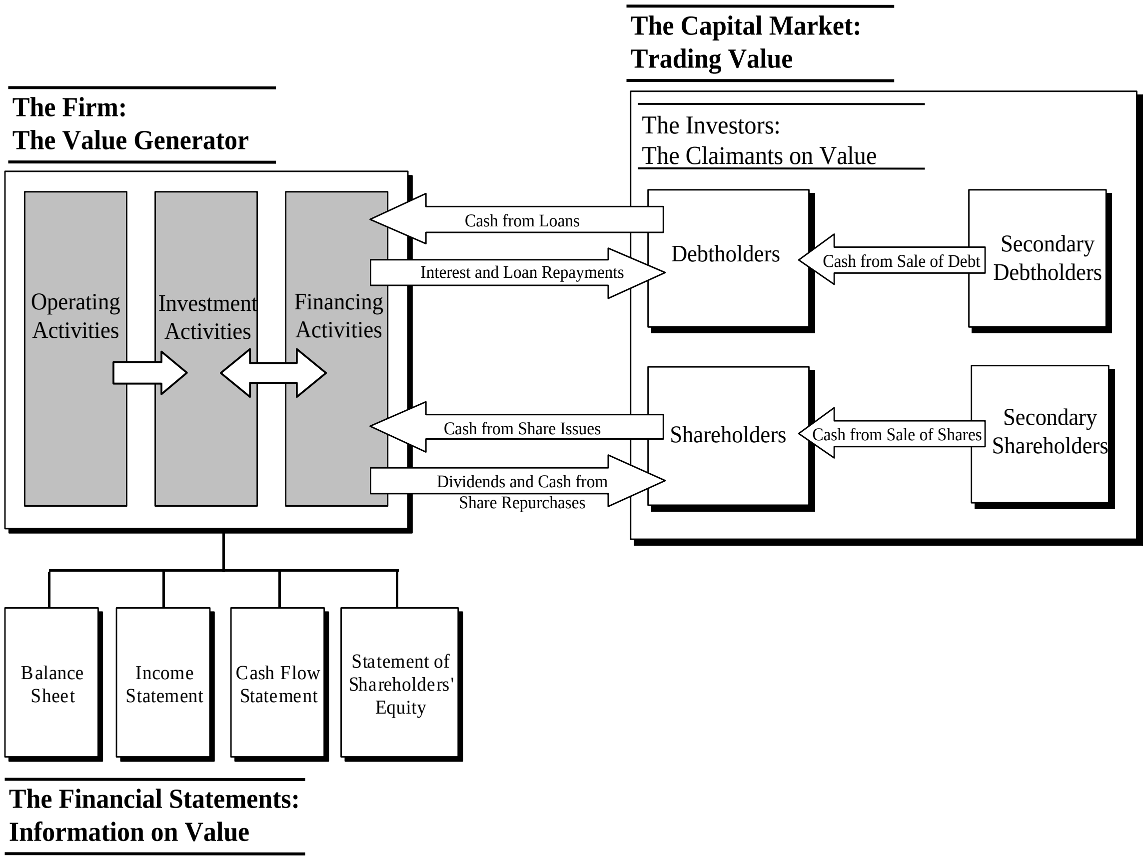
$$\text{ROE} = \frac{\text{Net Income}}{\text{Assets}} \text{ x } \frac{\text{Assets}}{\text{Shareholders' Equity}}$$

$$\text{ROE} = \quad \text{ROA} \quad \text{x} \quad \text{Leverage}$$

- Problems
  - Net income includes interest income and expense – ie it includes financing items

- All operating liabilities are excluded (ie trade creditors)
- Ie combination of operating and financing assets and income in the calculation of ROE

- Must consider activities of the firm separately



- Remember under Cash flows, operating is 'interest expense' → must reformat!
- Financing Activieis
  - Interest paid, interest received
  - Equity financing – issue shares, share repurchases, dividends
- Share issues: creation of value?
  - Share price reacts to what the company wants the money for
  - Share issues can only create value if you can issue shares at more than the market price (ie never) → most share issues are done at market price
  - Nothing will happen to price per share
  - If shares issued below market price (ie executive stock options) → price per share drops
  - Accounting for stock options is problematic → who is actually paying the compensation? Shareholders (bc they lose value on their shares)
- Share repurchases and dividends: creation of value?
  - Share repurchases always done at market price → ie no value created or lost
  - Dividends – payment of dividends M&M (mille and Modigliani)
    - M&M - Win nobel prizes, theoretical economists