RATIO ANALYSIS

COMMON SIZE STATEMENTS

- Common-size statements normalize balance sheets and income statements and allow an analyst to compare performance across firms, evaluate a single firm across time, and quickly view certain financial ratios. A vertical common-size balance sheet expresses all balance sheet accounts as a percentage of total assets.
- A vertical common-size income statement expresses all income statement items as a percentage of sales.
- Horizontal common-size financial sheet data index each item to its value in a base year.

LIMITATIONS OF FINANCIAL RATIOS

- Financial ratios are not useful when viewed in isolation. They are only valid when compared to those of other firms or to the company's historical performance.
- Comparisons with other firms is difficult because of different accounting treatments
- It is difficult to find comparable industry ratios when analyzing firms that operate in multiple industries.
- Conclusions cannot be made from viewing one set of ratios. All ratios must be viewed relative to one another.
- Determining the target or comparison value for a ratio is difficult, requiring some range of acceptable values.

- Do the firms being compared have similar accounting practices?
- When comparing divisions within a firm, are the ratios comparable?
- Do the ratios being used give consistent readings?
- Do the ratios yield a reasonable figure for the industry?

5 MAJOR CATEGORIES OF RATIOS

- Profitability Ratio
- Efficiency ratio
- Gearing
- Liquidity Ratio
- Investment Ratios
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PROFITABILITY RATIO

- These ratios provide idea on the degree of success of the owners ability to create wealth.

RETURN ON CAPITAL EMPLOYED (ROCE)

- Profit before interest & tax /capital employed X 100%
  - (capital + reserves+ long term loans)
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  - The ROCE is the primary measure of profitability
  - ROCE = net profit before int. & tax/sales x sales/capital employed

RETURN ON EQUITY (ROE)

- Net profit after tax and pref. div x100

  Equity (share capital and reserves)
- Financial Analyst look at this ratio to determine the valuation of a company

EXTENDED ROE (DU PONT EQUATION)

- ROE = NI/Equity
- = NI/sales x sales/equity
- Net profit margin (after tax) x equity turnover
- = NI/sales x sales/asset x asset/equity
- = net profit margin (after tax) x asset turnover x financial leverage multiplier

PROFIT MARGINS

- Net profit margin
  Net profit before int and tax / sales x 100

  Note supermarkets may operate in low NPM, but sales will be high. Jewelers shops will have high NPM, but sales will be low.
- Gross profit margin
  - Gross profit / sales x 100

EFFICIENCY RATIO

- a. Stock holding period = average stock / cost of sales * 365
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- b. Debtor Collection Period = Trade Debtors / Sales * 365
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- c. Creditor payment period = trade creditors / cost of purchase * 365
- (some also use cost of sales)

CASH CONVERSION CYCLE

- Stock holding period + debtor collection period – creditor payment period
- Eg 20 + 30 -25 = 25 days for cash conversion
- This means.. The business need to have finance that will carry them till 25 days of credit terms.

- Sales to capital ratio
  - Sales(/shareholder fund + long term loans) x 100
- Sales per employee
  - Sales / no of employee

LIQUIDITY RATIO

- ACID Test = current asset – stock / current liabilities
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- current ratio = current assets / current liabilities

GEARING

- Gearing = Long Term Debt / shareholder fund + long term debt
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- Interest Cover = Profit before int. & tax / interest payable

INVESTMENT RATIOS

- Dividend per share
  - Dividends announced/no of shares
- Dividend payout ratio
- Dividend announced/earnings x 100%
- Retention = total earning – dividend announced
- Retention ratio + payout ratio = 1

- Earnings per share (EPS)
- Total earnings to ordinary shareholders/no of ordinary shares
- PE ratio (Price/earning ratio)
- Market value of share/ EPS