Chapter 3

- ***Working With Financial Statements***

- Financial Analyst use different tools to analyse the financial position of the company
  - Financial ratio analysis is a way to analyse and **evaluate a company's performance**.

Ratio Analysis

- Know how to compute and interpret important financial ratios
- The ratio must be compared with other firms, or averages, in the same industry during the same time period.
  - Ratios allow for better comparison of the financial performance of the company;
    - through time (current and past performance of the company)
    - between companies
    - or between firms different divisions
- Ratios are used both internally and externally

- Internal uses
  - Performance evaluation – compensation and comparison between divisions
  - Planning for the future – guide in estimating future cash flows
- External uses
  - Creditors
  - Suppliers
  - Customers

Categories of Financial Ratios

1. Short-term Solvency (Liquidity Ratios)
2. Long-term Solvency (Financial Leverage Ratios)
3. Asset Management (Turnover Ratios)
4. Profitability Ratios
5. Market Value Ratios

- Acceptability of values depends on the industry in which the firm operates.

1. Liquidity Ratios (Short-Term Solvency)

- Measures capacity to meet S-T liabilities out of its liquid assets (i.e. ability to pay bills in the short-run)
  - These ratios focus on c/a and c/l, which are converted to cash within 12 months
  - S-T creditor (bankers and other S-T lenders) are interested in these ratios.
    - Current Ratio
    - Quick Ratio
    - Cash Ratio

1.1 Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

3-6

Current Ratio......continued

3-7

1.2 Quick Ratio = $\frac{\text{(Current Assets-Inventory)}}{\text{Current Liabilities}}$

3-8

1.3 Cash Ratio = $\frac{\text{CASH}}{\text{Current Liabilities}}$

3-9

2. Leverage ratios (Long-Term Solvency Measure)

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2.1 Total Debt Ratio= $\frac{\text{(TA-TE)}}{\text{Total Assets}}$

3-11

Eg. 0.475 : 47.5%

2.2 Debt To Equity Ratio = $\frac{\text{Tot. Debt}}{\text{Tot. Equity}}$

2.3 Times Interest Earned = $\frac{\text{EBIT}}{\text{Interest}}$

3. Asset Management or Turnover Ratios (Activity Ratios)

"How effective is the company to using its assets"

3.1 Inventory Turnover = $\frac{\text{COGS}}{\text{Inventory}}$

3.2 Days' sales in Inventory = $\frac{365}{\text{Inventory Turnover}}$

3.3 Receivables Turnover = $\frac{\text{Sales}}{\text{Acc. Rec.}}$

3.4 Days' sales in receivables Turnover = $\frac{365}{\text{Rec. Turn.}}$

3.5 Payable Turnover = $\frac{\text{COGS}}{\text{Acc. Payable}}$

3.6 Days Sales in Payable = $\frac{365}{\text{Payable Turnover}}$

3.7 Total Asset Turnover = $\frac{\text{Sales}}{\text{Total Assets}}$

3.8 Fixed Asset Turnover = $\frac{\text{Sales}}{\text{Net Fixed Assets}}$

4. Profitability Ratios

"Measures the success of the firm in earning, such as *return on sales*, *return on asset employed* or *return on the level of equity investment*"

4.1 Profitability Margin = $\frac{\text{Net Income}}{\text{Sales}}$

4.2 Return on Assets (ROA) = $\frac{\text{Net Income}}{\text{Tot. Assets}}$

4.3 Return on Equity (ROE) = $\frac{\text{Net Income}}{\text{Tot. Equity}}$

5. Market Measures

5.1 Earning Per Share (EPS) =

$$\frac{\text{Net Income}}{\text{Number of shares outstanding}}$$

5.2 Price Earning Ratio =

$$\frac{\text{Market Price per share}}{\text{EPS}}$$

5.3 Market to Book Value = $\frac{\text{MV per share}}{\text{BV per share}}$

- BV per share = $\frac{\text{Total Equity}}{\text{the number of shares outstanding}}$

- Eg. Market to Book Value=1.40

Suggested Problems

- 1-4, 6, 10, 17,19, 26.