CHAPTER 3

Lecture 03

Financial Statements Analysis and Financial Model

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Financial Statements Analysis

- Standardized statements
  - Standardized statements make it easier to compare financial statements, particularly as the company grows.
- Common-Size Balance Sheets
  - Compute all accounts as a percent of total assets
- Common-Size Income Statements
  - Compute all line items as a percent of sales
- They are also useful for comparing companies of different sizes, particularly within the same industry.

Ratio Analysis

- Financial ratios allow for better comparison through time or between companies.
- Categories of Financial Ratios
  - Short-term solvency or liquidity ratios
  - Long-term solvency or financial leverage ratios
  - Asset management or turnover ratios
  - Profitability ratios
  - Market value ratios

Liquidity Ratios

- Current Ratio = Current Assets / Current Liabilities
  - 708 / 540 = 1.31 times
- Quick Ratio = (Current Assets – Inventory) / Current Liabilities
  - (708 - 422) / 540 = .53 times
- Cash Ratio = Cash / Current Liabilities
  - 98 / 540 = .18 times

Leverage Ratios

- Total Debt Ratio = (Total Assets – Total Equity) / Total Assets
  - (3588 - 2591) / 3588 = 28%
- Debt-Equity Ratio = Total Debt / Total Equity
  - (3588 – 2591) / 2591 = 38.5%
- Equity Multiplier = Total Assets / Total Equity = 1 + Debt / Equity
  - 1 + .385 = 1.385

Coverage Ratios

- Times Interest Earned = EBIT / Interest
  - 691 / 141 = 4.9 times
- Cash Coverage = (EBIT + Depreciation + Amortization) / Interest
  - (691 + 276) / 141 = 6.9 times

Inventory Ratios

- Inventory Turnover = Cost of Goods Sold / Inventory
  - 1344 / 422 = 3.2 times
- Days' Sales in Inventory = 365 / Inventory Turnover
  - 365 / 3.2 = 114 days

Receivables Ratios

- Receivables Turnover = Sales / Accounts Receivable
  - 2311 / 188 = 12.3 times
- Days' Sales in Receivables = 365 / Receivables Turnover
  - 365 / 12.3 = 30 days

Computing Total Asset Turnover

- Total Asset Turnover = Sales / Total Assets
  - 2311 / 3588 = .64 times
  - It is not unusual for TAT < 1, especially if a firm has a large amount of fixed assets.

Computing Profitability Measures

- Profit Margin = Net Income / Sales
  - 363 / 2311 = 15.7%
- Return on Assets (ROA) = Net Income / Total Assets
  - 363 / 3588 = 10.1%
- Return on Equity (ROE) = Net Income / Total Equity
  - 363 / 2591 = 14.0%
- EBITDA Margin = EBITDA / Sales
  - 967 / 2311 = 41.8%

Computing Market Value Measures

- Market Capitalization = $88 per share x 33 million shares = 2904 million
- PE Ratio = Price per share / Earnings per share
  - 88 / 11 = 8 times
- Market-to-book ratio = market value per share / book value per share
  - 88 / (2591 / 33) = 1.12 times
- Enterprise Value (EV) = Market capitalization + Market value of interest bearing debt – cash
  - 2904 + (196 + 457) – 98 = 3465
- EV Multiple = EV / EBITDA
  - 3465 / 967 = 3.6 times

Using Financial Statements

- Ratios are not very helpful by themselves: they need to be compared to something
- Time-Trend Analysis
  - Used to see how the firm's performance is changing through time
- Peer Group Analysis
  - Compare to similar companies or within industries
  - SIC and NAICS codes