Construction Accounting and Financial Management

Chapter 6
Analysis of Financial Statements

Financial Ratios

- Affected by:
  - Method of depreciation
  - Retention
  - Timing of financial statements
- When comparing items on the balance sheet and income statement, use the average of the balance before and after the period covered by the income statement

Quick Ratio

- Ability to pay current (short-term) liabilities with cash or other near cash assets
- Quick Ratio = (Cash + Accounts Receivable) / Current Liabilities
- Accounts receivable-retention should not be included in the accounts receivable
- Ideal is 1.00 to 1

Current Ratio

- Ability to use current assets to pay for current liabilities
- Current Ratio = Current Assets / Current Liabilities
- Ideal is 2.00 to 1

Current Liabilities to Net Worth Ratio

- Measurement of the risk that short-term creditors are taking by extending credit
- CL to NW = Current Liabilities/Net Worth
- Ideal is 67% for other industries
  - Construct exceeds this because of heavy use of trade financing

Debt to Equity Ratio

- Risk in the company all creditors are taking compared to the risk the company's owners are taking
- Debt to Equity = Total Liabilities/Net Worth
- Ideal is less than 2.00 to 1

Fixed Assets to Net Worth Ratio

- Measurement of the amount of the owner's equity that is tied up in fixed assets
- FA to NW = Net Fixed Assets/Net Worth

Current Assets to Total Asset Ratio

- Measurement of how liquidity a construction company's assets are
- CA to TA = Current Assets/Total Assets
- Ideal is:
  - 0.55 to 0.65 for equipment intensive areas
  - 0.70 to 0.80 for all others

Collection Period

- Measurement of the average time it takes a company to collect its accounts receivable
  - Exclude accounts receivable-retention
- Measurment of how long the company's capital is being used to finance client's construction projects
  - Include accounts receivable-retention

Collection Period

- Coll. Period = $\dfrac{\text{Accounts Receivable(365)}}{\text{Revenues}}$
- Ideal is less than 45 days

Average Age of Accounts Payable

- Measure of how extensively a company is using trade financing
- AA of AP = $\dfrac{\text{Accounts Payable(365)}}{\text{(Materials + Subcontract)}}$
- Assumes the bulk of the invoices that pass through the accounts payable are material and subcontract construction costs
- Ideal is less than 45 days

Assets to Revenues Ratio

- Measurement of how efficiently the company is using its assets
- Assets to Revenues = $\dfrac{\text{Total Assets}}{\text{Revenues}}$

Working Capital Turns

- Measurement of how efficiently a company is using its working capital
- Working capital:
  - The working capital represents those funds available for future operations or for the reduction of long-term liabilities
  - WC = Current Assets – Current Liabilities

Working Capital Turns

- WCT = Revenues/Working Capital
- When payments pass through to subcontractors:
  - WCT = $\frac{\text{(Revenues – Subcontractor)}}{\text{Working Capital}}$

Accounts Payable to Revenue Ratio

- Measurement of how much a company is using its suppliers and subcontractors as a source of funds
- AP to R = Accounts Payable/Revenue
- Includes accounts payable-retention

Gross Profit Margin

- Percentage of the revenues left after paying construction costs and equipment costs
- Measure of what percentage of each dollar of revenue is available to cover general overhead expenses and provide the company with a profit
- Gross Profit Margin = Gross Profit/Revenue

General Overhead Ratio

- Percentage of the revenues used to pay the general overhead expense
- General Overhead = $\frac{\text{General Overhead}}{\text{Revenue}}$
- Ideal is less than 10% plus realtor fees

Profit Margin

- Percentage of the revenues that becomes profit
- Pretax PM = $\frac{\text{Net Profit Before Taxes}}{\text{Revenues}}$
  - Ideal is >5%
- After-tax PM = $\frac{\text{Net Profit After Taxes}}{\text{Revenues}}$

Return on Assets

- Measurement of how efficiently a construction company is using its assets
- Return on Assets = $\frac{\text{Net Profit After Taxes}}{\text{Total Assets}}$

Return on Equity

- Return the company's shareholders received on their invested capital
- Pretax ROE = $\frac{\text{Net Profit Before Taxes}}{\text{Equity}}$
  - Ideal is >15%
- After-tax ROE = $\frac{\text{Net Profit After Taxes}}{\text{Equity}}$

Degree of Fixed Asset Newness

- Measurement of how new a company's assets are
- Affected by depreciation method
- D of FAN = $\frac{\text{Net Fixed Assets}}{\text{Total Fixed Assets}}$
- Ideal is between 60 and 40%,