Test 1 Equations

\[ \text{NOPAT} = \text{EBIT}(1 – \text{tax rate}) \]

Operating cash flow = NOPAT + Depreciation & amortization

Gross investment in operating capital = Net investment in operating capital + Depreciation & amortization

FCF = operating cash flow – gross investment in operating capital = NOPAT – Net investment in operating capital

\[ \text{EVA} = \text{NOPAT} – \text{after-tax dollar cost operating capital} \]
\[ = \text{EBIT}(1-t) – \left[ \text{total investor-supplied operating capital}(\text{After-tax cost of capital}) \right] \]

\[ \text{MVA} = \text{Market value of stock} – \text{Equity capital supplied by shareholders} \]
\[ = (\text{Shares outstanding})(\text{Stock price}) – \text{Total common equity} \]

\[ \text{Current} = \frac{\text{Current assets}}{\text{Current liabilities}} \]

\[ \text{Inventory turnover} = \frac{\text{Sales}}{\text{Inventories}} \]

\[ \text{Receivables turnover} = \frac{\text{Sales}}{\text{Receivables}} \]

\[ \text{Fixed asset turnover} = \frac{\text{Sales}}{\text{Net fixed assets}} \]

\[ \text{Debt ratio} = \frac{\text{Total debt}}{\text{Total assets}} \]

\[ \text{Equity multiplier} = \frac{\text{Total assets}}{\text{Total equity}} = \frac{1}{1 - \text{Debt ratio}} = 1 + \frac{D}{E} \]

\[ \text{Net income available to common stockholders} \]

\[ \text{Pr ofit m arg in} = \frac{\text{Net income}}{\text{sales}} \]

\[ \text{ROA} = \frac{\text{Net income}}{\text{Total assets}} \]

\[ \text{Market / Book} = \frac{\text{Market value per share}}{\text{Book value per share}} \]

\[ \text{Price / earnings (P / E)} = \frac{\text{Market price per share}}{\text{Earnings per share}} \]

\[ \text{D/E} = \frac{D/A}{1 - D/A} \]
\[ \text{D/A} = \frac{D/E}{1 + D/E} \]
\[ EBITDA \text{ coverage ratio} = \frac{EBITDA + \text{lease payments}}{\text{interest} + \text{lease payments} + \text{principal payments}} \]

\[ \text{ROE} = \text{ROA} \times \text{Equity multiplier} = \text{Profit margin} \times \text{Total asset turnover} \times \text{Equity multiplier} \]

\[ \text{dividend payout ratio} = \frac{\text{cash dividends}}{\text{Net income}} \]

\[ \text{Retention ratio} = \frac{(\text{Net income} - \text{dividends})}{\text{Net income}} \]

\[ \text{Full capacity sales} = \frac{\text{Actual sales}}{\% \text{ capacity at which FA were operated}} \]

\[ \frac{\text{Target FA}}{\text{Sales}} = \frac{\text{Actual FA}}{\text{Full capacity sales}} \]

\[ AFN = \frac{A^*}{S_0} \Delta S - \frac{L^*}{S_0} \Delta S - M \times S_i \times RR \]