Corporate Finance, Module 24: “Financial Analysis and Planning”

*Readings for the Fourteenth Edition (2022) of the Brealey, Myers, Allen, and Edmans text*

(The attached PDF file has better formatting.)

The sections in this posting are for the *fourteenth* edition of the Brealey, Myers, Allen, and Edmans text. You may also use the seventh through thirteenth editions; final exam problems can be answered from any edition.

{The Brealey, Myers, Allen, and Edmans textbook is excellent. We say to read certain sections and to skip others. This does not mean that certain sections are better; it means that the homework assignments and exam problems are based on the sections that you must read for this course. Some of the skipped sections are fascinating, but they are not tested.}

Read Section 29-1, “Understanding Financial Statements.” If you have never had an accounting course and have not picked up basic accounting at work, these sections are good introductions. They explain financial statements (balance sheet and income statement) and financial ratios; they help you in general actuarial work, not just in the VEE course.

Know the accounting entries in this simple income statement and the relations between them:

| | | | |
|---|---|---|---|
| ! | Net sales | 122,286 | |
| | " Cost of goods sold | 95,294 | |
| | " Selling, general, and administrative expenses | 22,092 | |
| ! | Earnings before interest, taxes, depreciation, amortization (EBITDA) | 4,900 | [= 122,286 – 95,294 – 22,092 |
| | " Depreciation | 2,649 | |
| | " Other income | 333 | |
| ! | Earnings before interest and income taxes (EBIT) | 2,584 | [= 4,900 – 2,649 + 333 |
| | " Interest expense | 603 | |
| ! | Taxable income | 1,981 | [= 2,584 – 603 |
| | " Taxes | 469 | |
| ! | Net income | 1,512 | [= 1,981 – 469 |
| ! | Allocation of net income | | |
| | " Dividends | 486 | |
| ! | Addition to retained earnings | 1,026 | [= 1,512 – 486 |

Read Section 29-2 Measuring company performance

Know four performance measures: return on assets, return on equity, return on capital, and economic value added. Know the formulas and review the computations on pages 834-35. If you have also taken the financial accounting online course, note several differences between this textbook and financial accounting procedures for ROC, ROA, ROE, and EVA. This textbook

- ! includes after-tax interest expense with net income for ROA, ROC, and EVA, as explained in the second to last full paragraph on page 836. The textbook adds that “financial analysts often ignore this refinement and use the gross interest payment to calculate ROC,” meaning that they subtract the entire interest expense from net income and don’t add back the after-tax portion. See also the first full paragraph at the top of page 837 for ROA.
  - " for EVA, see page 835 (all four formulas)
  - " for ROC and ROA, see page 836
- ! uses only net income for ROE (see page 836), as there is no interest expense on equity

- ! uses beginning of the year balance sheet values for assets, capital, and equity
  - " see the first full paragraph at the top of page 835: “Kroger *entered* the year with …” and the 29.3 self-test at the bottom of page 835: “its total capital at the *start* of the year …” Financial analysts generally the average of the funds at the beginning of the year and the end of the year; see the second to last full paragraph on page 837.

- ! defines capital as long term debt plus equity, not as total liabilities plus equity
  - " total assets exceed total capital by the amount of current liabilities

The DuPont Formula and other efficiency measures in this textbook have the same differences from the DuPont formula and other efficiency measures in the financial accounting course.

The calculations of ROA and ROE are shown on page 837. The illustration in the textbook has total assets about twice as large as total capital, because it includes only long term debt in capital and this firm is financed largely by short term debt.

Read Section 29-3 “Measuring efficiency.” Know the components of the DuPont formula on page 839, especially the decomposition of return on assets into operating profit margin and asset turnover. This textbook uses beginning of the year assets and equity and it capitalizes research costs instead of expensing them. The financial accounting textbook uses average assets and equity and it expenses research costs. Each method has advantages and drawbacks.

Know the formulas in the subsection “Other Efficiency Measures” on page 841, especially inventory turnover, inventory periods, receivables turnover, and accounts receivable period. For this course, use beginning of the year balance sheet values.

Read Section 29-4 “Measuring leverage.” know the formulas for the long-term debt ratio, the total debt ratio, the interest coverage or times-interest-earned ratio, and the cash coverage ratio. The full DuPont formula is shown on page 843.

Read Section 29-5 Measuring Liquidity. Know the formulas for net working capital, current ratio, quick ratio, and cash ratio.

Review end of chapter problems 1, 2, 3, 5, 6, 7, 8, 15, 19.

Illustrative test questions, problems, and homework assignments are shown separately on the discussion forum.