

Chapter 2

Analyzing Financial Statements and Ratios

Chapter Overview

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Key Concepts

When reading this chapter, students should focus on the following key concepts:

1. The balance sheet, income statement, and statement of cash flows are vital tools to be used by financial managers.
2. How to interpret data contained in financial statements.
3. How ratios are used to analyze the financial performance of an organization.
4. How to use data to compare the financial performance of one organization against another.

Quiz Questions

Multiple Choice

1. Which of the following is a picture or snapshot of the financial condition of an organization at a specific point in time?
 - a. Balance sheet
 - b. Income statement
 - c. Statement of cash flows
 - d. Budget
 - e. None of the above
2. Which ratio measures how an organization finances its operation with debt and equity?
 - a. Current ratio
 - b. Quick ratio
 - c. Total asset turnover ratio
 - d. Inventory turnover ratio
 - e. Debt ratio
3. Which ratio measures how often an organization sells and replaces its inventory over a specified period of time?
 - a. Current ratio
 - b. Quick ratio
 - c. Total asset turnover ratio
 - d. Inventory turnover ratio
 - e. Debt ratio
4. Which of the following is an estimate of how much money investors will pay for each dollar of the organization's earnings?
 - a. Interest coverage ratio
 - b. Net profit margin
 - c. Return on equity
 - d. Market value
 - e. Price-to-earnings ratio
5. Which financial statement tracks cash in and cash out of an organization over a specified period of time?
 - a. Balance sheet
 - b. Income statement
 - c. Statement of cash flows
 - d. Budget
 - e. None of the above

6. Which of the following measures the return rate an organization's owners or shareholders are receiving on their investments?
- a. Interest coverage ratio
 - b. Net profit margin
 - c. Return on equity
 - d. Market value
 - e. Price-to-earnings ratio
7. The _____ shows the organization's income over a specified period of time.
- a. Balance sheet
 - b. Income statement
 - c. Statement of cash flows
 - d. Budget
 - e. None of the above
8. An estimation of an organization's worth according to the stock market is _____.
- a. Interest coverage ratio
 - b. Net profit margin
 - c. Return on equity
 - d. Market value
 - e. Price-to-earnings ratio
9. Which of the following is a profitability ratio that measures the percentage of an organization's total sales or revenues that was net profit or income?
- a. Interest coverage ratio
 - b. Net profit margin
 - c. Return on equity
 - d. Market value
 - e. Price-to-earnings ratio
10. Which ratio is an indication of whether an organization can meet its current liabilities—those due within a year—with its current assets?
- a. Current ratio
 - b. Quick ratio
 - c. Total asset turnover ratio
 - d. Inventory turnover ratio
 - e. Debt ratio

True/False Questions

1. **T or F** Most business organizations, including those in the sport industry, do not use double-entry bookkeeping.
2. **T or F** When using the ledger of T-accounts, credits are entered on the right-hand side and debits are entered on the left-hand side.

3. **T or F** The balance sheet represents what the organization's financial performance is over a period of time.
4. **T or F** A common example of a long-term liability is renovation.
5. **T or F** There is no lag time between when a transaction is made and when payment is exchanged in accrual basis accounting.
6. **T or F** The balance sheet provides information as to whether the company has sufficient cash on hand to meet its debts and obligations.
7. **T or F** Current ratio values can be used as a comparative tool.
8. **T or F** Two of the most common activity ratios are the total asset turnover ratio and the inventory turnover ratio.
9. **T or F** Total assets is used as the denominator in the calculation of return on assets.
10. **T or F** How a company chooses to finance its operation with debt versus existing loans is known as leverage.

Answers to Quiz Questions

Multiple Choice

1. a
2. e
3. d
4. e
5. c
6. c
7. b
8. d
9. b
10. a

True/False

1. F
2. T
3. F
4. T
5. F
6. F
7. T
8. T
9. T
10. F

Concept Check Responses

1. *What is a T-account and how is it utilized in double-entry bookkeeping?*

A T-account is a visual tool that tracks individual accounts by using a ledger to separate credits on the left-hand side and debits on the right-hand side. In double-entry bookkeeping, any entry on one account—for example, a debit in an organization's cash account—must be accompanied by a corresponding simultaneous entry in another account, so that the net result across the accounts is zero. In other words, the accounts must balance.

2. *What are the three major sections of the balance sheet? Provide at least one example of an item that would be found under each of those sections.*

The three sections of the balance sheet are Assets, Liabilities, and Owners', or Shareholders', Equity. Assets include what the organization owns, such as cash and inventory. Liabilities are the organization's financial debts, including both short- and long-term obligations. Owners' Equity is the estimated ownership value of the company, such as stock and capital.

3. *What is the primary difference between an income statement and a statement of cash flows?*

The income statement shows revenues coming in to and expenses going out of an organization, whereas the statement of cash flows displays cash coming in and going out of the organization. Under accrual basis accounting, this difference can be considerable, as revenues are not necessarily equivalent to cash coming in. For example, in some situations cash payment for a sale might not be received for several months.

4. *What is the purpose of computing financial ratios?*

Financial ratios provide information about the condition and performance of a company. They are useful in comparing an organization's financial status to that of the organization's own past, as well as to rival competitors in the same industry.

5. *If an organization's current ratio value is below 1.00, what might that suggest about the organization?*

A current ratio value below 1.00 suggest that an organization is unable to cover its debts with its assets, such as cash and accounts receivable. As such, the organization may need to convert longer-term assets into cash or borrow money to cover obligations owed.

6. *What information do leverage ratios provide?*

Leverage ratios show how a company finances its operation with debt and equity. An organization that relies extensively on borrowing money in order to operate is

considered to be heavily leveraged and is more at risk of financial problems than one that is not so reliant on debt.

7. *Why is the price-to-earnings ratio so widely used among investors?*

The price-to-earnings, or P/E, ratio gives an estimate of how much money investors will pay for each dollar of the company's earnings. One of the strengths of the P/E ratio for investors is that its scaled nature allows for comparisons of the market values of organizations of all sizes.

8. *This chapter repeatedly states that financial ratios are most valuable when viewed in comparison to the organization's historical ratio values as well as to competitors. Why is this context valuable when examining financial ratio values?*

Successful organizations evaluate themselves both internally and externally. From a financial perspective, companies must know how their status and performance measures internally compared to their own historical data. Externally, companies must understand how their financial position compares to that of their competition. Lacking either of these perspectives provides an incomplete view of the organization's financial condition.

Response to Practice Problem

Students will have the option to choose a competitor to Nike. We will be using [Under Armour's financial statements](#) for the example ratio calculations: The ten financial ratios discussed in the chapter were calculated as shown below:

$$\begin{aligned} 1. \text{ Current ratio} &= \frac{\text{Current assets}}{\text{Current liabilities}} \\ &= \frac{\$2,702,209,000}{\$1,422,009,000} \\ &= 1.90 \end{aligned}$$

$$\begin{aligned} 2. \text{ Quick ratio} &= \frac{(\text{Current assets} - \text{inventory})}{\text{Current liabilities}} \\ &= \frac{(\$2,702,209,000 - 892,258,000)}{\$1,422,009,000} \\ &= \frac{\$1,809,951,000}{\$1,422,009,000} \end{aligned}$$

$$= \frac{\$1,422,009,000}{1.27}$$

3. **Total asset turnover ratio** = $\frac{\text{Net sales}^*}{\text{Average total assets}}$

* Note that Under Armour's income statement uses "Net Revenues," instead, on its income statement.

$$= \frac{\$5,267,132,000}{[(\$4,843,531,000 + \$4,245,022,000)/2]}$$

$$= \frac{\$5,267,132,000}{\$4,544,276,500}$$

$$= 1.16$$

4. **Inventory turnover ratio** = $\frac{\text{Cost of goods sold}^*}{\text{Average inventory}}$

$$= \frac{\$2,796,599,000}{[(\$892,258,000 + \$1,019,496,000)/2]}$$

$$= \frac{\$2,796,599,000}{\$955,877,000}$$

$$= 2.93$$

5. **Debt ratio** = $\frac{\text{Total liabilities}}{\text{Total assets}}$

$$= \frac{\$2,693,444,000}{\$4,843,531,000}$$

$$= 0.556 \text{ or } 55.6\%$$

6. **Interest coverage ratio** = $\frac{\text{Earnings Before Interest and Taxes (EBIT)}^*}{\text{Interest expense}}$

* On Nike's income statement, EBIT is not directly provided. It must be self-calculated by using the Gross Margin figure and subtracting the subsequent expenses not related to interest or taxes, which here represent the four lines/values immediately below Gross Margin.

$$= \frac{\$236,770,000}{\$21,240,000}$$

$$= 11.15$$

7. **Net profit margin** = $\frac{\text{Net income}}{\text{Sales}}$

$$= \frac{\$92,139,000}{\$5,267,132,000}$$

$$= 1.75 \% \text{ (should be expressed as a percentage)}$$

8. **Return on equity** = $\frac{\text{Net income}}{\text{Shareholders' equity}}$

$$= \frac{\$92,139,000}{\$2,150,087,000}$$

$$= 4.38\% \text{ (should be expressed as a percentage)}$$

9. **Market value** = Price per share of common stock \times number of outstanding shares*

* The number of shares of outstanding common stock is found [here](#). Per Yahoo Finance, the price per share finished at \$19.18 ($188,289,680 + 34,450,000 = 222,739,680$).

$$= \$19.18 \times 222,739,680$$

$$= \$4,272,147,062$$

10. **Price-to-earnings ratio** = $\frac{\text{Price per share of common stock}}{\text{Earnings per share}^*}$

* Earnings per share = $\frac{\text{Net income}}{\text{Number of outstanding shares of common stock}}$

$$= \frac{\$19.18}{\$19.18}$$

$$\begin{aligned}
 & (\$92,139,000/222,739,680) \\
 = & \quad \underline{\$19.18} \\
 & \$0.41 \\
 = & \quad 46.37
 \end{aligned}$$

Responses to Case Analysis Questions

The case study at the end of the chapter asks students to compare the financial health of Nike and a competitor based on the ten financial ratios discussed in the chapter. For the competitor we will look at [Under Armour](#); students have access to Nike's financial ratios in the chapter.

Please note that students are being asked to make a rather simplistic assessment based on comparing the ratio figures for these two companies and what they've just learned about each ratio. In actuality, the ratio results and assessments may be much more complex. Note also that the two companies could be compared on different dates, as Nike and the competitor could use different fiscal year start and end dates.

1. *In what ratio areas is Nike stronger than its competitor?*
2. *In what ratio areas is the competitor stronger than Nike?*
3. *If you were an investor considering purchasing stock in either Nike or its competitor, in which company would you purchase stock? Explain and support your answer.*

Consider evaluating students' answers based on how well they support their answer with sound financial analysis rather than viewing the question as having a definitively right-or-wrong answer.