

# Chapter 2

## Introduction to Financial Statement Analysis

### I. Chapter Outline

The following chapter outline is correlated to the PowerPoint Lecture Slides. The PowerPoint slides are referenced in **bold**. Alternative Examples to selected textbook examples are also available in the PowerPoint Lecture Slides and are also referenced in **bold**.

#### 2.1 Firms' Disclosure of Financial Information (**Slide 8**)

- Preparation of Financial Statements (**Slide 9**)
- Interview with Ruth Porat
- Types of Financial Statements (**Slide 10**)

#### 2.2 The Balance Sheet (**Slides 11-12**)

- Table 2.1: Global Conglomerate Corporation Balance Sheet for 2012 and 2011 (**Slide 15**)
- Assets (**Slides 13-14**)
  - Current Assets
  - Long-Term Assets
- Liabilities (**Slides 16-18**)
  - Current Liabilities
  - Long-Term Liabilities
- Stockholders' Equity (**Slide 20**)
  - Market Value Versus Book Value (**Slide 21-22**)
  - Enterprise Value (**Slide 23**)
- Example 2.1 Market Versus Book Value (**Slides 24-25**)
- *PowerPoint* Alternative Example 2.1 (**Slides 26-27**)

#### 2.3 The Income Statement (**Slide 28**)

- Earnings Calculations (**Slides 28-34**)
  - Gross Profit (**Slide 28**)
  - Operating Expenses (**Slide 29**)
- Table 2.2: Global Conglomerate Corporation Income Statement for 2015 and 2014 (**Slide 33**)
  - Earnings before Interest and Taxes (**Slide 30**)
  - Pretax and Net Income (**Slide 32**)
  - Earnings per Share (**Slide 34**)

#### 2.4 The Statement of Cash Flows (**Slide 35-36**)

- Operating Activity (**Slide 37**)
- Table 2.3 Global Conglomerate Corporation Statement of Cash Flows for 2015 and 2014 (**Slide 39**)

- Investment Activity (**Slide 38**)
- Financing Activity (**Slide 38**)
- Example 2.2 The Impact of Depreciation on Cash Flow (**Slides 40–41**)
- *PowerPoint* Alternative Example 2.2 (**Slides 42–43**)

## 2.5 Other Financial Statement Information (**Slide 44**)

- Statement of Stockholders' Equity (**Slide 44**)
- Management Discussion and Analysis (**Slide 45**)
- Notes to the Financial Statements (**Slide 45**)
- Example 2.3 Sales by Product Category (**Slides 46–47**)
- *PowerPoint* Alternative Example 2.3 (**Slides 48–50**)

## 2.6 Financial Statement Analysis (**Slide 51**)

- Profitability Ratios (**Slide 52–53**)
- Figure 2.1 EBIT Margins for Five U.S. Airlines (**Slide 54**)
- Liquidity Ratios (**Slide 55**)
- Example 2.4 Computing Liquidity Ratios (**Slides 56–57**)
- *PowerPoint* Alternative Example 2.4 (**Slides 58–60**)
- Working Capital Ratios (**Slide 61–62**)
- Interest Coverage Ratios (**Slide 63**)
- Example 2.5 Computing Interest Coverage Ratios (**Slides 64–65**)
- *PowerPoint* Alternative Example 2.5 (**Slides 66–67**)
- Leverage Ratios (**Slides 68–69**)
- Valuation Ratios (**Slide 70**)
- Common Mistake: Mismatched Ratios
- Example 2.6 Computing Profitability and Valuation Ratios (**Slides 71–72**)
- *PowerPoint* Alternative Example 2.6 (**Slides 73–74**)
- Operating Returns (**Slide 75**)
- Example 2.7 Computing Operating Returns (**Slides 76–77**)
- *PowerPoint* Alternative Example 2.7 (**Slides 78–79**)
- The DuPont Identity (**Slide 80**)
- Example 2.8 Determinants of ROE (**Slides 81–82**)
- *PowerPoint* Alternative Example 2.8 (**Slides 83–84**)
- Table 2.4 A Summary of Key Financial Ratios (**Slide 85**)

## 2.7 Financial Reporting in Practice (**Slide 86**)

- Enron (**Slide 86**)
- WorldCom (**Slide 86**)
- Sarbanes-Oxley Act (**Slide 86**)
- Dodd-Frank Act (**Slide 86**)
- Global Financial Crisis: Bernie Madoff's Ponzi Scheme

## II. Learning Objectives

- 2-1** List the four major financial statements required by the SEC for publicly traded firms, define each of the four statements, and explain why each of these financial statements is valuable.

- 2-2 Discuss the difference between book value and market value of stockholders' equity; explain why the two numbers are almost never the same.
- 2-3 Compute the following measures, and describe their usefulness in assessing firm performance: debt-equity ratio, enterprise value, earnings per share, operating margin, net profit margin, accounts receivable days, accounts payable days, inventory days, interest coverage ratio, return on equity, return on assets, price-earnings ratio, and market-to-book ratio.
- 2-4 Discuss the uses of the DuPont Identity in disaggregating ROE, and assess the impact of increases and decreases in the components of the identity on ROE.
- 2-5 Describe the importance of ensuring that valuation ratios are consistent with one another in terms of the inclusion of debt in the numerator and the denominator.
- 2-6 Distinguish between cash flow, as reported on the statement of cash flows, and accrual-based income, as reported on the income statement; discuss the importance of cash flows to investors, relative to accrual-based income.
- 2-7 Explain what is included in the management discussion and analysis section of the financial statements that cannot be found elsewhere in the financial statements.
- 2-8 Explain the importance of the notes to the financial statements.
- 2-9 List and describe the financial scandals described in the text, along with the new legislation designed to reduce those types of fraud.

### **III. Chapter Overview**

This chapter reviews the four main financial statements and discusses some useful financial ratios. The chapter closes with a look at some recent financial scandals.

#### **2.1 Firms' Disclosure of Financial Information**

The four statements that are required by the U.S. Securities and Exchange Commission (SEC) are the balance sheet, the income statement, the statement of cash flows, and the statement of stockholders' equity.

The section includes a summary of steps taken toward standardizing financial statements across countries using International Financial Reporting Standards.

#### **2.2 The Balance Sheet**

The balance sheet lists the firm's assets and liabilities. This section describes current assets, long-term assets, current liabilities and long-term liabilities, with examples of the major components of each. The authors emphasize the difference between market value and book value of equity and give some specific reasons why the two are seldom the same. Example 2.1 illustrates a case in which they are different.

Book value of equity is sometimes used as an estimate of the liquidation value of the firm. Important tools for analyzing the firm's value, leverage, and short-term cash needs from information found on the balance sheet include the following:

- a. The market-to-book ratio, which is often used to classify firms as value stocks or growth stocks
- b. Enterprise value, which assesses the value of underlying business assets, not including cash

#### **2.3 The Income Statement**

The income statement lists the firm's revenues and expenses over a period. This section of the text discusses the calculation of earnings from the components of the income statement. Earnings per

share (and diluted earnings per share) are often calculated to assess the size of net income relative to that of similar firms.

### **2.4 The Statement of Cash Flows**

The statement of cash flows converts accrual-based income into cash flow. Cash flows are separated into operating activities, investment activities, and financing activities. Example 2.2 shows the impact of depreciation on cash flows.

### **2.5 Other Financial Statement Information**

The statement of stockholders' equity provides detailed information about additions to, or reductions in, the stockholders' equity accounts. The management discussion and analysis provides management's interpretation of the planned activities of the firm. Notes to the financial statements are an integral part of the statements, as they show detail about stock-based compensation plans, leases, principal payments on debt, and many other items. Example 2.3 uses a note to the financial statement reporting sales by product category to find the sales unit with the highest growth.

### **2.6 Financial Statement Analysis**

Profitability ratios, such as operating margin and net profit margin, are often used to measure the fraction of revenues that is available to common shareholders. Liquidity ratios are often used by creditors to assess financial solvency. Example 2.4 illustrates computation of some liquidity ratios. Some examples of ratios that use both income statement and balance sheet items are working capital ratios, such as accounts receivable days (or average collection period), or inventory and accounts payable turnovers. Leverage is often assessed using ratios such as interest coverage, which is also a mixed ratio. Example 2.5 illustrates calculation of interest coverage ratios. Leverage ratios are also used to assess leverage. Profitability and valuation ratios are shown in Example 2.6. Operating returns are measured by return on equity or return on assets (illustrated by Example 2.7), although these measures are both flawed in their use of book value measures. The DuPont Identity allows the analyst to break down the determinants of a firm's ROE. Example 2.8 illustrates this decomposition for Walmart and Target.

Table 2.4 summarizes the financial ratios discussed throughout the chapter.

### **2.7 Financial Reporting in Practice**

There have been several recent abuses of financial rules, including Enron and WorldCom. Enron sold assets at inflated prices to other firms, together with a promise to buy back assets at an even higher future price. WorldCom reclassified \$3.85 billion in expenses as long-term investment. In response, in 2002 the Sarbanes-Oxley Act was passed to improve accuracy of information provided to boards and shareholders. It attempts to achieve this goal by (1) overhauling incentives and the independence in the auditing process, (2) stiffening penalties for providing false information, and (3) forcing companies to validate their internal financial control processes. The Act holds CFOs and CEOs accountable for the firm's financial statements. The Dodd-Frank Wall Street Reform and Consumer Protection Act exempts small firms from some provisions of Sarbanes-Oxley and also broadens whistle-blower provisions of that Act. A call-out box describes Madoff's Ponzi scheme.

## **IV. Spreadsheet Solutions in Excel**

The following problems for Chapter 2 have spreadsheet versions available: 10, 11, 13, 15, 16, 17, and 20.

These spreadsheets can be downloaded from the Instructor's Resource Center at: [www.pearsonhighered.com/berk\\_demarzo](http://www.pearsonhighered.com/berk_demarzo). If you do not have a login and password for this Web site, contact your Pearson sales representative.