

FINANCIAL STATEMENT ANALYSIS

In the previous chapter, we explored equity valuation techniques. These techniques take as inputs the firm's dividends and earnings prospects. While the valuation analyst is interested in economic earnings streams, only financial accounting data are readily available. What can we learn from a company's accounting data that can help us estimate the intrinsic value of its common stock?

In this chapter, we are not trying to develop the art of financial statement analysis, but rather to show how it relates to stock valuation analysis. We present much more complicated financial statements than are often seen in elementary corporate finance texts; this is to show the complexity and the potential variety of statements. In addition to discussing how to analyze the statements, we also show the importance of analysts' appraisals of sales and accounting information in forecasting economic earnings and the difficulties they have in formulating those appraisals. The market reaction to the combination of accounting releases and forecasts is important to understand.

We start by reviewing the basic sources of such data—the income statement, the balance sheet, and the statement of cash flows. We next discuss the difference between economic and accounting earnings. While economic earnings are more important for issues of valuation, we examine evidence suggesting that, whatever their shortcomings, accounting data still are useful in assessing the economic prospects of the firm. We show how analysts use financial ratios to explore the sources of a firm's profitability and evaluate the “quality” of its earnings in a systematic



fashion. We also examine the impact of debt policy on various financial ratios. Finally, we conclude with a discussion of the limitations of financial statement analysis as a tool in uncovering mispriced securities. Some of these limitations are due to differences in firms' accounting procedures, while others arise from inflation-induced distortions in accounting numbers.



15.1 THE MAJOR FINANCIAL STATEMENTS

The Income Statement

The **income statement** is a summary of the profitability of the firm over a period of time, such as a year. It presents revenues generated during the operating period, the expenses incurred during that same period, and the company's net income, which is simply the difference between revenues and expenses.

It is useful to distinguish four broad classes of expenses: cost of goods sold (COGS), which is the direct cost attributable to producing the product sold by the firm; salaries, advertising, and other costs of operating the firm that are not directly attributable to production; interest expense on the firm's debt; and taxes on earnings owed to federal and local governments. Typically, this simple breakdown of expenses is not immediately recognizable in the income statements of larger firms.

Table 15.1 presents a 2000 income statement for Teck Corporation. In addition to direct cost of operations (COGS), which are about 70 percent of revenues, Teck recognizes depreciation and amortization associated with mineral properties to arrive at operating profit. Subtracting other general expenses, exploration and R&D expense, plus other expense or income not directly associated with operations, leads to EBIT. Teck, however, includes interest on long-term debt with these expenses to arrive at earnings before taxes (EBT) and before other special items of \$132 million. (We can reconstruct EBIT of \$189 from \$132 million + \$57 million of interest. This is what the firm would have earned if not for its obligations to its creditors and the income tax authorities, and it is a measure of the profitability of the firm's operations ignoring the cost of debt financing.) Finally, the effect of income and resource taxes and payments to or from investments in other firms leads to net income (\$85 million), the "bottom line" of the income statement.

The Balance Sheet

While the income statement provides a measure of the profitability over a period of time, the **balance sheet** provides a snapshot of the financial condition of the firm at a particular point in time. The balance sheet is a list of the firm's assets and liabilities at that moment. The difference in assets and liabilities is the net worth of the firm, also called *shareholders' equity*. Like income statements, balance sheets are reasonably standardized in presentation. Table 15.2 is the balance sheet of Teck for year-end 2000.

The first section of the balance sheet gives a listing of the assets of the firm. Current assets are presented first. These are cash and other items such as accounts receivable or inventories that will be converted into cash within one year; Teck recognizes supplies and prepaid expenses separately from production inventories. Teck next lists the value of investments and other assets, in addition to the usual entry of the company's property, plant, and equipment. The sum of current and long-term assets, plus other adjustments, gives total assets, the last line of the assets side of the balance sheet.



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