CHAPTER 1

INTRODUCTION TO FINANCIAL STATEMENT ANALYSIS

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LEARNING OUTCOMES

After completing this chapter, you will be able to do the following:

- describe the roles of financial reporting and financial statement analysis;
- describe the roles of the statement of financial position, statement of comprehensive income, statement of changes in equity, and statement of cash flows in evaluating a company's performance and financial position;
- describe the importance of financial statement notes and supplementary information—including disclosures of accounting policies, methods, and estimates—and management's commentary;
- describe the objective of audits of financial statements, the types of audit reports, and the importance of effective internal controls;
- identify and describe information sources that analysts use in financial statement analysis besides annual financial statements and supplementary information;
- describe the steps in the financial statement analysis framework.

1. INTRODUCTION

Financial analysis is the process of examining a company's performance in the context of its industry and economic environment in order to arrive at a decision or recommendation. Often, the decisions and recommendations addressed by financial analysts pertain to providing capital to companies—specifically, whether to invest in the company's debt or equity securities and at what price. An investor in debt securities is concerned about the company's ability to pay interest and to repay the principal lent. An investor in equity securities is an owner with a residual interest in the company and is concerned about the company's ability to pay dividends and the likelihood that its share price will increase.

Overall, a central focus of financial analysis is evaluating the company's ability to earn a return on its capital that is at least equal to the cost of that capital, to profitably grow its operations, and to generate enough cash to meet obligations and pursue opportunities.

Fundamental financial analysis starts with the information found in a company's financial reports. These financial reports include audited financial statements, additional disclosures required by regulatory authorities, and any accompanying (unaudited) commentary by management. Basic financial statement analysis—as presented in this chapter—provides a foundation that enables the analyst to better understand other information gathered from research beyond the financial reports.

This chapter is organized as follows: Section 2 discusses the scope of financial statement analysis. Section 3 describes the sources of information used in financial statement analysis, including the primary financial statements (statement of financial position or balance sheet, statement of comprehensive income, statement of changes in equity, and cash flow statement). Section 4 provides a framework for guiding the financial statement analysis process. A summary of the key points concludes the chapter.

2. ROLES OF FINANCIAL REPORTING AND FINANCIAL STATEMENT ANALYSIS

The role of financial statements issued by companies is to provide information about a company's performance, financial position, and changes in financial position that is useful to a wide range of users in making economic decisions. The role of financial statement analysis is to use financial reports prepared by companies, combined with other information, to evaluate the past, current, and potential performance and financial position of a company for the purpose of making investment, credit, and other economic decisions. Managers within a company perform financial analysis to make operating, investing, and financing decisions but do not necessarily rely on analysis of related financial statements. They have access to additional financial information that can be reported in whatever format is most useful to their decision.

In evaluating financial reports, analysts typically have a specific economic decision in mind. Examples of these decisions include the following:

- Evaluating an equity investment for inclusion in a portfolio.
- Evaluating a merger or acquisition candidate.
- Evaluating a subsidiary or operating division of a parent company.
- Deciding whether to make a venture capital or other private equity investment.
- Determining the creditworthiness of a company in order to decide whether to extend a loan to the company and if so, what terms to offer.
- Extending credit to a customer.
- Examining compliance with debt covenants or other contractual arrangements.
- Assigning a debt rating to a company or bond issue.
- Valuing a security for making an investment recommendation to others.
- Forecasting future net income and cash flow.

These decisions demonstrate certain themes in financial analysis. In general, analysts seek to examine the past and current performance and financial position of a company in order to form expectations about its future performance and financial position. Analysts are also concerned about factors that affect risks to a company's future performance and financial position. An examination of performance can include an assessment of a company's profitability (the ability to earn a profit from delivering goods and services) and its ability to generate positive cash flows (cash receipts in excess of cash disbursements). Profit and cash flow are not equivalent. Profit (or loss) represents the difference between the prices at which goods or services are provided to customers and the expenses incurred to provide those goods and services.

In addition, profit (or loss) includes other income (such as investing income or income from the sale of items other than goods and services) minus the expenses incurred to earn that income. Overall, profit (or loss) equals income minus expenses, and its recognition is mostly independent from when cash is received or paid. Example 1 illustrates the distinction between profit and cash flow.

EXAMPLE 1 Profit versus Cash Flow

Sennett Designs (SD) sells furniture on a retail basis. SD began operations during December 2017 and sold furniture for €250,000 in cash. The furniture sold by SD was purchased on credit for €150,000 and delivered by the supplier during December. The credit terms granted by the supplier required SD to pay the €150,000 in January for the furniture it received during December. In addition to the purchase and sale of furniture, in December, SD paid €20,000 in cash for rent and salaries.

1. How much is SD's profit for December 2017 if no other transactions occurred?
2. How much is SD's cash flow for December 2017?
3. If SD purchases and sells exactly the same amount in January 2018 as it did in December and under the same terms (receiving cash for the sales and making purchases on credit that will be due in February), how much will the company's profit and cash flow be for the month of January?

Solution to 1: SD's profit for December 2017 is the excess of the sales price (€250,000) over the cost of the goods that were sold (€150,000) and rent and salaries (€20,000), or €80,000.

Solution to 2: The December 2017 cash flow is €230,000, the amount of cash received from the customer (€250,000) less the cash paid for rent and salaries (€20,000).

Solution to 3: SD's profit for January 2018 will be identical to its profit in December: €80,000, calculated as the sales price (€250,000) minus the cost of the goods that were sold (€150,000) and minus rent and salaries (€20,000). SD's cash flow in January 2018 will also equal €80,000, calculated as the amount of cash received from the customer (€250,000) minus the cash paid for rent and salaries (€20,000) *and* minus the €150,000 that SD owes for the goods it had purchased on credit in the prior month.

Although profitability is important, so is a company's ability to generate positive cash flow. Cash flow is important because, ultimately, the company needs cash to pay employees, suppliers, and others in order to continue as a going concern. A company that generates positive cash flow from operations has more flexibility in funding needed for investments and taking advantage of attractive business opportunities than an otherwise comparable company without positive operating cash flow. Additionally, a company needs cash to pay returns (interest and dividends) to providers of debt and equity capital.

The expected magnitude of future cash flows is important in valuing corporate securities and in determining the company's ability to meet its obligations. The ability to meet short-term obligations is generally referred to as **liquidity**, and the ability to meet long-term obligations is generally referred to as **solvency**. Cash flow in any given period is not, however, a complete measure of performance for that period because, as shown in Example 1, a company may be obligated to make future cash payments as a result of a transaction that generates positive cash flow in the current period.

Profits may provide useful information about cash flows, past and future. If the transaction of Example 1 were repeated month after month, the long-term average monthly cash flow of SD would equal €80,000, its monthly profit. Analysts typically not only evaluate past profitability but also forecast future profitability.

Exhibit 1 shows how news coverage of corporate earnings announcements places corporate results in the context of analysts' expectations. Panel A shows the earnings announcement, and Panel B shows a sample of the news coverage of the announcement. Earnings are also frequently used by analysts in valuation. For example, an analyst may value shares of a company by comparing its price-to-earnings ratio (P/E) to the P/Es of peer companies and/or may use forecasted future earnings as direct or indirect inputs into discounted cash flow models of valuation.

EXHIBIT 1 An Earnings Release and News Media Comparison with Analysts' Expectations

Panel A: Excerpt from Apple Earnings Release

Apple Reports Second Quarter Results
Revenue Grows 16 Percent and EPS Grows 30 Percent to New March Quarter Records
New $100 Billion Share Repurchase Authorization Announced, Dividend Raised by 16 Percent

Cupertino, California—May 1, 2018—Apple today announced financial results for its fiscal 2018 second quarter ended March 31, 2018. The Company posted quarterly revenue of $61.1 billion, an increase of 16 percent from the year-ago quarter, and quarterly earnings per diluted share of $2.73, up 30 percent. International sales accounted for 65 percent of the quarter's revenue.

"We're thrilled to report our best March quarter ever, with strong revenue growth in iPhone, Services and Wearables," said Tim Cook, Apple's CEO. "Customers chose iPhone X more than any other iPhone each week in the March quarter, just as they did following its launch in the December quarter. We also grew revenue in all of our geographic segments, with over 20 percent growth in Greater China and Japan."

"Our business performed extremely well during the March quarter, as we grew earnings per share by 30 percent and generated over $15 billion in operating cash flow," said Luca Maestri, Apple's CFO. "With the greater flexibility we now have from access to our global cash, we can more efficiently invest in our US operations and work toward a more optimal capital structure. Given our confidence in Apple's future, we are very happy to announce that our Board has approved a new $100 billion share repurchase authorization and a 16 percent increase in our quarterly dividend."

EXHIBIT 1 (Continued)

The Company will complete the execution of the previous $210 billion share repurchase authorization during the third fiscal quarter.

Reflecting the approved increase, the Board has declared a cash dividend of $0.73 per share of Apple's common stock payable on May 17, 2018 to shareholders of record as of the close of business on May 14, 2018.

The Company also expects to continue to net-share-settle vesting restricted stock units.

From the inception of its capital return program in August 2012 through March 2018, Apple has returned $275 billion to shareholders, including $200 billion in share repurchases. The management team and the Board will continue to review each element of the capital return program regularly and plan to provide an update on the program on an annual basis.

Apple is providing the following guidance for its fiscal 2018 third quarter:

- revenue between $51.5 billion and $53.5 billion
- gross margin between 38 percent and 38.5 percent
- operating expenses between $7.7 billion and $7.8 billion
- other income/(expense) of $400 million
- tax rate of approximately 14.5 percent

Apple will provide live streaming of its Q2 2018 financial results conference call beginning at 2:00 p.m. PDT on May 1, 2018 at www.apple.com/investor/earnings-call/. This webcast will also be available for replay for approximately two weeks thereafter.

Source: https://www.apple.com/newsroom/2018/05/apple-reports-second-quarter-results/ (retrieved 3 November 2018).

Panel B: Excerpt from News Article: Apple Second Quarter 2018 Earnings Release

Apple reported quarterly earnings and revenue on Tuesday that beat expectations, but sold fewer iPhones than expected.

Shares rose as much 5 percent after hours, as investors digested the company's better-than-expected outlook for the current quarter, and a hefty capital return program.

The soft iPhone sales were still up from a year ago, and Apple CEO Tim Cook said in a statement that customers "chose iPhone X more than any other iPhone each week in the March quarter."

- Earnings per share: $2.73 vs. $2.67, adjusted, expected by a Thomson Reuters consensus estimate
- Revenue: $61.1 billion vs. $60.82 billion expected by Thomson Reuters consensus
- iPhone unit sales: 52.2 million vs. 52.54 million expected by a StreetAccount estimate
- Fiscal Q3 revenue guidance: $51.5 billion to $53.5 billion vs. $51.61 billion expected by Thomson Reuters consensus

Net income was $13.82 billion, up from $11.03 billion a year ago. A year ago, Apple earned $2.10 a share on revenue of $52.9 billion.

Source: https://cnbc.com/2018/05/01/apple-earnings-q2-2018.html (retrieved November 3, 2018).

Analysts are also interested in the financial position of a company. The financial position can be measured by comparing the resources controlled by the company (**assets**) in relation to the claims against those resources (**liabilities** and **equity**). The combination of liabilities and equity used to finance its assets represents the capital structure of the company. An example of a resource is cash. In Example 1, if no other transactions occur, the company should have €230,000 more in cash at December 31, 2017 than at the start of the period. The cash can be used by the company to pay its obligation to the supplier (a claim against the company) and may also be used to make distributions to the owner (who has a residual claim against the company's assets, net of liabilities).

Financial position and capital structure are particularly important in credit analysis, as depicted in Exhibit 2. Panel A of the exhibit is an excerpt from the company's annual earnings release highlighting the cumulative profitability, strong cash flow, strong balance sheet, and strong return on invested capital. Panel B of the exhibit is an excerpt from an August 2017 news article about an increase in the credit rating of Southwest Airlines due to a long history of profitability and a conservative capital structure.

EXHIBIT 2

Panel A: Excerpt from Earnings Announcement by Southwest Airlines

Southwest Airlines Reports Fourth Quarter and Record Annual Profit; 44th Consecutive Year of Profitability

DALLAS, Jan. 26, 2017 /PRNewswire/ -- Southwest Airlines Co. (NYSE:LUV) (the "Company") today reported its fourth quarter and annual 2016 results:

Fourth quarter net income of $522 million, or $.84 per diluted share, compared with fourth quarter 2015 net income of $536 million, or $.82 per diluted share.

Excluding special items, fourth quarter net income of $463 million, or $.75 per diluted share, compared with fourth quarter 2015 net income of $591 million, or $.90 per diluted share. This exceeded the First Call fourth quarter 2016 consensus estimate of $.70 per diluted share.

Record annual net income of $2.24 billion, or $3.55 per diluted share, compared with 2015 net income of $2.18 billion, or $3.27 per diluted share.

Excluding special items, record annual net income of $2.37 billion, or $3.75 per diluted share, compared with 2015 net income of $2.36 billion, or $3.52 per diluted share.

Annual operating income of $3.76 billion, resulting in an operating margin of 18.4 percent.

Excluding special items, annual operating income of $3.96 billion, resulting in an operating margin of 19.4 percent.

Record annual operating cash flow of $4.29 billion, and record annual free cash flow of $2.25 billion.

Returned $1.97 billion to Shareholders in 2016, through a combination of $222 million in dividends and $1.75 billion in share repurchases.

Annual return on invested capital (ROIC) of 30.0 percent.

Gary C. Kelly, Chairman of the Board and Chief Executive Officer, stated, "We are delighted to report record annual profits for 2016, our 44th consecutive year of profitability. Our total operating revenues reached a record $20.4 billion, with sustained demand for our legendary low fares and superior Customer Service. Our profit

EXHIBIT 2 (Continued)

margins were very strong, and our ROIC was a near-record 30.0 percent. Our record profits and balance sheet discipline generated record free cash flow, allowing us to return significant value to our Shareholders. Operationally, our performance was also very solid. We carried a record number of Customers while improving our ontime performance, baggage delivery rate, and net promoter score. My thanks and congratulations to the superb People of Southwest for these outstanding results, which earned them $586 million in profit sharing during 2016.

"We ended the year with a solid fourth quarter 2016 performance. Total operating revenues grew 2.0 percent, year-over-year, to a fourth quarter record $5.1 billion, exceeding our expectations as of the beginning of the fourth quarter. Travel demand and close-in yields improved post-election. In addition, December business travel was stronger than anticipated leading up to the holiday period. Based on current bookings and revenue trends, we estimate first quarter 2017 operating unit revenues will be flat to down one percent, year-over-year. This represents a continued and sequential improvement from the 2.9 percent operating unit revenue year-over-year decline in fourth quarter 2016, which is an encouraging start to the year.

"As expected, our fourth quarter unit costs increased, year-over-year, due to higher fuel costs, pay increases from amended union contracts, and additional depreciation expense associated with the accelerated retirement of our Boeing 737-300 aircraft. While inflationary cost pressures are expected in 2017 due to the union contract pay increases, we are continuing our efforts to drive offsetting cost efficiencies through fleet modernization and ongoing technology investments in our operations.

…"As we close out a year of record results, we begin 2017 with momentum and enthusiasm. We are on track to open a new international terminal in Fort Lauderdale, along with the launch of new service, this June. We are on track to launch the new Boeing 737-8 in the fall. And, we are encouraged by recent revenue trends, as well as the prospects for continued economic growth and moderate fuel prices. We are excited about our current outlook for another strong year with opportunities to win more Customers and reward our People and our Shareholders."

Source: http://www.southwestairlinesinvestorrelations.com/news-and-events/news-releases/2017/01-26-2017-111504198 (retrieved November 3, 2018)

Panel B: Excerpt from News Article About Southwest Airlines

Southwest Wins Another Credit Rating Upgrade

Citing its "consistent record of profitability," S&P Global Ratings upgraded Southwest Airlines (LUV) on Monday to a triple-B-plus rating from triple-B.

This line from the report sums up the rationale for the upgrade nicely:

Southwest is the only U.S. airline that has recorded 44 consecutive years of profitability and remains the largest low-cost airline in the world.

The credit rating agency commends the airline for its record despite headwinds including, "multiple industry cycles, the evolution of the large U.S. hub-and-spoke airlines into more efficient and financially secure competitors, the emergence of

(*continued*)

EXHIBIT 2 (Continued)

ultra-low-cost airlines, the acquisition and integration of AirTran Holdings Inc. in 2011, and the company's entry into more congested but lucrative metropolitan airports such as New York's LaGuardia Airport."

In June, Moody's upgraded Southwest to A3, one notch higher than S&P's new rating on its credit scale. Moody's Senior Credit Officer Jonathan Root wrote then, "the upgrade to A3 reflects Moody's expectation that Southwest will continue to conservatively manage its capital structure, allowing it to sustain credit metrics supportive of the A3 rating category."

Source: https://www.barrons.com/articles/southwest-wins-another-credit-rating-upgrade-1502747699 (retrieved November 3, 2018).

In conducting financial analysis of a company, the analyst will regularly refer to the company's financial statements, financial notes, and supplementary schedules and a variety of other information sources. The next section introduces the primary financial statements and some commonly used information sources.

3. PRIMARY FINANCIAL STATEMENTS AND OTHER INFORMATION SOURCES

In order to perform an equity or credit analysis of a company, an analyst collects a great deal of information. The nature of the information collected will vary on the basis of the individual decision to be made (or the specific purpose of the analysis) but will typically include information about the economy, industry, and company, as well as information about comparable peer companies. Information from outside the company will likely include economic statistics, industry reports, trade publications, and databases containing information on competitors. The company itself provides core information for analysis in its financial reports, press releases, investor conference calls, and webcasts.

Companies prepare financial reports at regular intervals (annually, semiannually, and/or quarterly depending on the applicable regulatory requirements). Financial reports include financial statements along with supplemental disclosures necessary to assess the company's financial position and periodic performance.

Financial statements are the result of an accounting process that records a company's economic activities, following the applicable accounting standards and principles. These statements summarize the accounting information, mainly for users outside the company (such as investors, creditors, analysts, and others) because insiders have direct access to the underlying financial data summarized in the financial statements and to other information that is not included in the financial reporting process.

Financial statements are almost always audited by independent accountants, who provide an opinion on whether the financial statements present fairly the company's performance and financial position, in accordance with a specified, applicable set of accounting standards and principles.

3.1. Financial Statements and Supplementary Information

A complete set of financial statements includes a statement of financial position (i.e., a balance sheet), a statement of comprehensive income (i.e., a single statement of comprehensive income or an income statement and a statement of comprehensive income), a statement of changes in equity, and a statement of cash flows.[1] The balance sheet portrays the company's financial position at a given point in time. The statement of comprehensive income and statement of cash flows present different aspects of a company's performance over a period of time. The statement of changes in equity provides additional information regarding the changes in a company's financial position. In addition, the accompanying required notes, or footnotes, are considered an integral part of a complete set of financial statements.

Along with the required financial statements, a company typically provides additional information in its financial reports. In many jurisdictions, some or all of this additional information is mandated by regulators or accounting standards boards. The additional information provided may include a letter from the chairman of the company, a report from management discussing the results (typically called management discussion and analysis [MD&A] or management commentary), an external auditor's report providing assurances, a governance report describing the structure of the company's board of directors, and a corporate responsibility report. As part of his or her analysis, the financial analyst should read and assess this additional information along with the financial statements. The following sections describe and illustrate each financial statement and some of the additional information.

3.1.1. Balance Sheet (Statement of Financial Position)

The **balance sheet** (also called the **statement of financial position** or **statement of financial condition**) presents a company's financial position by disclosing the resources the company controls (assets) and its obligations to lenders and other creditors (liabilities) at a specific point in time. **Owners' equity** (sometimes called "net assets") represents the excess of assets over liabilities. This amount is attributable to the company's owners or shareholders. Owners' equity is the owners' residual interest in (i.e., residual claim on) the company's assets after deducting its liabilities.

The relationship among the three parts of the balance sheet (assets, liabilities, and owners' equity) can be expressed in the following equation form: Assets = Liabilities + Owners' equity. This equation (sometimes called the accounting equation or the balance sheet equation) shows that the total amount of assets must equal or *balance* with the combined total amounts of liabilities and owners' equity. Alternatively, the equation may be rearranged as follows: Assets – Liabilities = Owners' equity. This formulation emphasizes the residual claim aspect of owners' equity. Depending on the form of the organization, owners' equity may be referred to as "partners' capital" or "shareholders' equity" or "shareholders' funds."

Exhibit 3 presents the balance sheet of the Volkswagen Group from its Annual Report 2017.

[1] The names of the financial statements are those in IAS 1. Commonly used terms for these financial statements are indicated in parentheses. Later chapters will elaborate on each of these financial statements.

EXHIBIT 3 Balance Sheet of the Volkswagen Group (Excerpt)

€ million	Dec. 31, 2017	Dec. 31, 2016
Assets		
Noncurrent assets		
Intangible assets	63,419	62,599
Property, plant, and equipment	55,243	54,033
Lease assets	39,254	38,439
Investment property	468	512
Equity-accounted investments	8,205	8,616
Other equity investments	1,318	996
Financial services receivables	73,249	68,402
Other financial assets	8,455	8,256
Other receivables	2,252	2,009
Tax receivables	407	392
Deferred tax assets	9,810	9,756
	262,081	**254,010**
Current assets		
Inventories	40,415	38,978
Trade receivables	13,357	12,187
Financial services receivables	53,145	49,673
Other financial assets	11,998	11,844
Other receivables	5,346	5,130
Tax receivables	1,339	1,126
Marketable securities	15,939	17,520
Cash, cash equivalents, and time deposits	18,457	19,265
Assets held for sale	115	–
	160,112	**155,722**
Total assets	**422,193**	**409,732**
Equity and Liabilities		
Equity		
Subscribed capital	1,283	1,283
Capital reserves	14,551	14,551
Retained earnings	81,367	70,446
Other reserves	560	(1,158)
Equity attributable to Volkswagen AG hybrid capital investors	11,088	7,567
Equity attributable to Volkswagen AG shareholders and hybrid capital investors	108,849	92,689
Noncontrolling interests	229	221
	109,077	**92,910**
Noncurrent liabilities		
Financial liabilities	81,628	66,358
Other financial liabilities	2,665	4,488
Other liabilities	6,199	5,664
Deferred tax liabilities	5,636	4,745

EXHIBIT 3 (Continued)

€ million	Dec. 31, 2017	Dec. 31, 2016
Provisions for pensions	32,730	33,012
Provisions for taxes	3,030	3,556
Other provisions	20,839	21,482
	152,726	**139,306**
Current liabilities		
Put options and compensation rights granted to noncontrolling interest shareholders	3,795	3,849
Financial liabilities	81,844	88,461
Trade payables	23,046	22,794
Tax payables	430	500
Other financial liabilities	8,570	9,438
Other liabilities	15,961	15,461
Provisions for taxes	1,397	1,301
Other provisions	25,347	35,711
	160,389	**177,515**
Total equity and liabilities	**422,193**	**409,732**

Note: Numbers are as shown in the annual report and may not precisely add because of rounding.

Source: Volkswagen 2017 annual report.

In Exhibit 3, the balance sheet is presented with the most recent year in the left column and the earlier year in the right column. Although this is a common presentation, analysts should be careful when reading financial statements. In some cases, the ordering may be reversed, with the earlier year(s) on the left and the most recent year on the far right.

At 31 December 2017, Volkswagen's total resources or assets were €422 billion. This number is the sum of non-current assets of €262 billion and current assets of €160 billion.[2] Total equity was €109 billion. Although Volkswagen does not give a total amount for all the balance sheet liabilities, it can be determined by adding the non-current and current liabilities, €153 billion + €160 billion = €313 billion.[3]

Referring back to the basic accounting equation, Assets = Liabilities + Equity, we have €422billion = €313 billion + €109 billion. In other words, Volkswagen has assets of €422 billion, owes €313 billion, and thus has equity of €109 billion. Using the balance sheet and applying financial statement analysis, the analyst can answer such questions as

- Has the company's liquidity (ability to meet short-term obligations) improved?
- Is the company solvent (does it have sufficient resources to cover its obligations)?
- What is the company's financial position relative to the industry?

[2]Current assets are defined, in general, as those assets that are cash or cash equivalents; are held for trading; or are expected to be converted to cash (realized), sold, or consumed within 12 months or the company's normal operating cycle. All other assets are classified as non-current.

[3]Current liabilities are defined, in general, as those that are expected to be settled within 12 months or the company's normal operating cycle. All other liabilities are classified as non-current.

Volkswagen, a German-based automobile manufacturer, prepares its financial statements in accordance with International Financial Reporting Standards (IFRS). IFRS require companies to present balance sheets that show current and non-current assets and current and non-current liabilities as separate classifications. However, IFRS do not prescribe a particular ordering or format, and the order in which companies present their balance sheet items is largely a function of tradition.

As shown, Volkswagen presents non-current assets before current assets, owners' equity before liabilities, and non-current liabilities before current liabilities. This method generally reflects a presentation from least liquid to most liquid. In other countries, the typical order of presentation may differ. For example, in the United States, Australia, and Canada, companies usually present their assets and liabilities from most liquid to least liquid. Cash is typically the first asset shown, and equity is presented after liabilities.

As a basis for comparison, Exhibit 4 presents the balance sheet of Walmart, Inc. (Walmart) from its 2018 annual report, with a fiscal year end of January 31.

EXHIBIT 4 Walmart Consolidated Balance Sheet

	As of January 31	
(Amounts in $ millions)	2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	6,756	6,867
Receivables, net	5,614	5,835
Inventories	43,783	43,046
Prepaid expenses and other	3,511	1,941
Total current assets	59,664	57,689
Property and equipment:		
Property and equipment	185,154	179,492
Less accumulated depreciation	(77,479)	(71,782)
Property and equipment, net	107,675	107,710
Property under capital lease and financing obligations:		
Property under capital lease and financing obligations	12,703	11,637
Less accumulated amortization	(5,560)	(5,169)
Property under capital lease and financing obligations, net	7,143	6,468
Goodwill	18,242	17,037
Other assets and deferred charges	11,798	9,921
Total assets	204,522	198,825
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term borrowings	5,257	1,099
Accounts payable	46,092	41,433
Accrued liabilities	22,122	20,654
Accrued income taxes	645	921
Long-term debt due within one year	3,738	2,256
Capital lease and financing obligations due within one year	667	565

EXHIBIT 4 (Continued)

	As of January 31	
(Amounts in $ millions)	2018	2017
Total current liabilities	78,521	66,928
Long-term debt	30,045	36,015
Long-term capital lease and financing obligations	6,780	6,003
Deferred income taxes and other	8,354	9,344
Commitments and contingencies		
Equity:		
Common stock	295	305
Capital in excess of par value	2,648	2,371
Retained earnings	85,107	89,354
Accumulated other comprehensive loss	(10,181)	(14,232)
Total Walmart shareholders' equity	77,869	77,798
Noncontrolling interest	2,953	2,737
Total equity	80,822	80,535
Total liabilities and equity	204,522	198,825

Source: Walmart 2018 annual report.

As of January 31, 2018, Walmart has total assets of $205 billion. Liabilities and other non-equity claims total $124 billion, and equity is $81 billion.

3.1.2. Statement of Comprehensive Income

The statement of comprehensive income can be presented as a single statement of comprehensive income or as two statements, an income statement and a statement of comprehensive income that begins with profit or loss from the income statement. The Volkswagen Group chose the latter form of presentation.

3.1.2.1. Income Statement The income statement presents information on the financial performance of a company's business activities over a period of time. It communicates how much **revenue** and other income the company generated during a period and the expenses it incurred to generate that revenue and other income. Revenue typically refers to amounts charged for the delivery of goods or services in the ordinary activities of a business. Other income may include gains that may or may not arise in the ordinary activities of the business, such as profit on a business disposal. **Expenses** reflect outflows, depletions of assets, and incurrences of liabilities that decrease equity. Expenses typically include such items as cost of sales (cost of goods sold), administrative expenses, and income tax expenses and may be defined to include losses. Net income (revenue plus other income minus expenses) on the income statement is often referred to as the "bottom line" because of its proximity to the bottom of the income statement. Net income may also be referred to as "net earnings," "net profit," and "profit or loss." In the event that expenses exceed revenues and other income, the result is referred to as "net loss."

Income statements are reported on a consolidated basis, meaning that they include the income and expenses of subsidiary companies under the control of the parent (reporting) company. The income statement is sometimes referred to as a **statement of operations** or **profit and loss (P&L) statement**. The basic equation underlying the income statement is Revenue + Other income – Expenses = Income – Expenses = Net income.

In general terms, when one company (the parent) controls another company (the subsidiary), the parent presents its own financial statement information consolidated with that of the subsidiary. (When a parent company owns more than 50 percent of the voting shares of a subsidiary company, it is presumed to control the subsidiary and thus presents consolidated financial statements.) Each line item of the consolidated income statement includes the entire amount from the relevant line item on the subsidiary's income statement (after removing any intercompany transactions). However, if the parent does not own 100 percent of the subsidiary, it is necessary for the parent to present an allocation of net income to the minority interests. Minority interests, also called non-controlling interests, refer to owners of the remaining shares of the subsidiary that are not owned by the parent. The share of consolidated net income attributable to minority interests is shown at the bottom of the income statement along with the net income attributable to shareholders of the parent company. Exhibit 5 presents the income statements of the Volkswagen Group from its 2017 annual report.

EXHIBIT 5 Income Statement of the Volkswagen Group (Excerpt)

€ million	2017	2016
Sales revenue	**230,682**	**217,267**
Cost of sales	(188,140)	(176,270)
Gross result	**42,542**	**40,997**
Distribution expenses	(22,710)	(22,700)
Administrative expenses	(8,254)	(7,336)
Other operating income	14,500	13,049
Other operating expenses	(12,259)	(16,907)
Operating result	**13,818**	**7,103**
Share of the result of equity-accounted investments	3,482	3,497
Interest income	951	1,285
Interest expenses	(2,317)	(2,955)
Other financial result	(2,022)	(1,638)
Financial result	**94**	**189**
Earnings before tax	**13,913**	**7,292**
Income tax income/expense	(2,275)	(1,912)
Current	(3,205)	(3,273)
Deferred	930	1,361
Earnings after tax	11,638	5,379
of which attributable to		
Noncontrolling interests	10	10
Volkswagen AG hybrid capital investors	274	225
Volkswagen AG shareholders	11,354	5,144
Basic earnings per ordinary share in €	**22.63**	**10.24**

EXHIBIT 5 (Continued)

€ million	2017	2016
Diluted earnings per ordinary share in €	**22.63**	**10.24**
Basic earnings per preferred share in €	**22.69**	**10.30**
Diluted earnings per preferred share in €	**22.69**	**10.30**

Note: The numbers are as shown in the annual report and may not add because of rounding.

Source: 2017 Volkswagen annual report.

Exhibit 5 shows that Volkswagen's sales revenue for the year ended December 31, 2017 was €231 billion. Subtracting cost of sales from revenue gives gross profit (called "gross results" by Volkswagen) of €43 billion. After subtracting operating costs and expenses, and adding other operating income, the company's operating profit (called "operating result" by Volkswaen) totals €14 billion. Operating profit represents the results of the company's usual business activities before deducting interest expense or taxes. Operating profit (also called operating income in addition to operating result) is thus often referred to as earnings before interest and taxes (EBIT).

Next, operating profit is increased by Volkswagen's share of the profits generated by certain of its investments (€3.5 billion) plus interest income of €1.0 billion, and decreased by losses from its other financial activities (€2.0 billion) and by interest expense of €2.3 million, resulting in profit (earnings) before tax of €13.9 billion. Total income tax expense for 2017 was €2.3 billion, resulting in profit after tax (net income) of €11.6 billion. After allocating the profits attributable to minority interest ownership in Volkswagen subsidiary companies, the profit attributable to shareholders of Volkswagen for 2017 was €11.4 billion.

Companies present both basic and diluted earnings per share on the face of the income statement. Earnings per share numbers represent net income attributable to the class of shareholders divided by the relevant number of shares outstanding during the period. Basic earnings per share is calculated using the weighted-average number of common (ordinary) shares that were actually outstanding during the period and the profit or loss attributable to the common shareowners. Diluted earnings per share uses **diluted shares**—the number of shares that would hypothetically be outstanding if potentially dilutive claims on common shares (e.g., stock options or convertible bonds) were exercised or converted by their holders—and an appropriately adjusted profit or loss attributable to the common shareowners.

Volkswagen has two types of shareholders, ordinary and preferred, and presents earnings per share information for both, although there is no requirement to present earnings per share information for preferred shareowners. Volkswagen's basic earnings per ordinary share was €22.63. A note to the company's financial statements explains that this number was calculated as follows: €11.4 billion profit attributable to shareholders of Volkswagen, of which €6.8 billion is attributable to ordinary shareholders and the balance is attributable to preferred shareholders. The €6.8 billion attributable to ordinary shareholders divided by the weighted-average number of ordinary shares of 0.295 billion shares equals basic earnings per share of €22.63. Similar detail is provided in the notes for each of the earnings per share numbers.

An analyst examining the income statement might note that Volkswagen was profitable in both years. The company's profits increased substantially in 2017, primarily because of higher sales and lower other operating expenses (footnotes reveal this was largely due to $4 billion less in litigation expenses in 2017). The analyst might formulate questions related to profitability, such as the following:

- Is the change in revenue related to an increase in units sold, an increase in prices, or some combination?
- If the company has multiple business segments (for example, Volkswagen's segments include passenger cars, light commercial vehicles, and financial services, among others), how are the segments' revenue and profits changing?
- How does the company compare with other companies in the industry?

Answering such questions requires the analyst to gather, analyze, and interpret information from a number of sources, including, but not limited to, the income statement.

3.1.2.2. Other Comprehensive Income Comprehensive income includes all items that impact owners' equity but are not the result of transactions with shareowners. Some of these items are included in the calculation of net income, and some are included in other comprehensive income (OCI). When comprehensive income is presented in two statements, the statement of comprehensive income begins with the profit or loss from the income statement and then presents the components of OCI.

Exhibit 6 presents an excerpt from the statement of comprehensive income of the Volkswagen Group from its 2017 annual report.

EXHIBIT 6 Statement of Comprehensive Income of the Volkswagen Group (Excerpt)

€ million	Fiscal Year Ended December 31, 2017
Earnings after tax	**11,638**
Pension plan remeasurements recognized in other comprehensive income	
Pension plan remeasurements recognized in other comprehensive income, before tax	785
Deferred taxes relating to pension plan remeasurements recognized in other comprehensive income	(198)
Pension plan remeasurements recognized in other comprehensive income, net of tax	588
Share of other comprehensive income of equity-accounted investments that will not be reclassified to profit or loss, net of tax	96
Items that will not be reclassified to profit or loss	**683**
Exchange differences on translating foreign operations	
Unrealized currency translation gains/losses	(2,095)
Transferred to profit or loss	(4)
Exchange differences on translating foreign operations, before tax	(2,099)
Deferred taxes relating to exchange differences on translating foreign operations	(8)
Exchange differences on translating foreign operations, net of tax	(2,107)
Cash flow hedges	
Fair value changes recognized in other comprehensive income	6,137
Transferred to profit or loss	(558)

EXHIBIT 6 (Continued)

€ million	Fiscal Year Ended December 31, 2017
Cash flow hedges, before tax	5,579
Deferred taxes relating to cash flow hedges	(1,597)
Cash flow hedges, net of tax	3,982
Available-for-sale financial assets	
Fair value changes recognized in other comprehensive income	56
Transferred to profit or loss	62
Available-for-sale financial assets, before tax	118
Deferred taxes relating to available-for-sale financial assets	(25)
Available-for-sale financial assets, net of tax	93
Share of other comprehensive income of equity-accounted investments that may be reclassified subsequently to profit or loss, net of tax	(346)
Items that may be reclassified subsequently to profit or loss	**1,622**
Other comprehensive income, before tax	4,133
Deferred taxes relating to other comprehensive income	(1,828)
Other comprehensive income, net of tax	**2,305**
Total comprehensive income	**13,943**

Source: Volkswagen 2017 annual report.

Exhibit 6 shows total comprehensive income for 2017 was €13.9 billion, which is the sum of earnings after tax of €11.6 billion, reported on the income statement, and other comprehensive income of €2.3 billion. The items in OCI reflect changes in the company's equity that are not considered to be profit or loss, some of which may be reclassified as such in the future such as unrealized currency translation gains and losses. The statement of comprehensive income will be discussed in greater detail in a later chapter.

3.1.3. Statement of Changes in Equity

The statement of changes in equity, sometimes called the "statement of changes in owners' equity" or "statement of changes in shareholders' equity," primarily serves to report changes in the owners' investment in the business over time. The basic components of owners' equity are paid-in capital and retained earnings. Retained earnings include the cumulative amount of the company's profits that have been retained in the company. In addition, non-controlling or minority interests and reserves that represent accumulated OCI items are included in equity. The latter items may be shown separately or included in retained earnings. Volkswagen includes reserves as components of retained earnings.

The statement of changes in equity is organized to present, for each component of equity, the beginning balance, any increases during the period, any decreases during the period, and the ending balance. For paid-in capital, an example of an increase is a new issuance of equity, and an example of a decrease is a repurchase of previously issued stock. For retained earnings, income (both net income as reported on the income statement and OCI) is the most common increase, and a dividend payment is the most common decrease.

Volkswagen's balance sheet in Exhibit 3 shows that equity at the end of 2017 totaled €109 billion, compared with €93 billion at the end of 2016. The company's statement of changes in equity presents additional detail on the change in each line item. Exhibit 7 presents an excerpt of the statement of changes in equity of the Volkswagen Group from its 2017 annual report. For purposes of brevity, several interim columns were excluded from the presentation.

EXHIBIT 7 Statement of Changes in Equity of the Volkswagen Group (Excerpt)

€ million	Subscribed capital	Capital reserves	Retained earnings	Total equity
Balance at 1 January 2017	1,283	14,551	70,446	92,910
Earnings after tax	–	–	11,354	11,638
Other comprehensive income, net of tax	–	–	586	2,305
Total comprehensive income	–	–	11,940	13,943
Capital increases	–	–	–	3,481
Dividends payment	–	–	–1,015	–1,332
Capital transactions involving a change in ownership interest	–	–	–	–
Other changes	–	–	–4	75
Balance at December 31, 2017	1,283	14,551	81,367	109,077

Note: Numbers are as shown in the annual report and may not add and cross-add because of the exclusion of columns and due to rounding.

In Exhibit 7, as shown in the far right column, total equity is increased during the year by total comprehensive income of €13.9 billion and by capital infusions of €3.5 billion; it is decreased by dividends of €1.3 billion; and, finally, slightly increased by €75 million of other changes. Explanatory notes on equity are included in the notes to the consolidated financial statements.

3.1.4. Cash Flow Statement

Although the income statement and balance sheet provide measures of a company's success in terms of performance and financial position, cash flow is also vital to a company's long-term success. Disclosing the sources and uses of cash helps creditors, investors, and other statement users evaluate the company's liquidity, solvency, and financial flexibility. **Financial flexibility** is the ability of the company to react and adapt to financial adversity and opportunities.

The cash flow statement classifies all cash flows of the company into three categories: operating, investing, and financing. Cash flows from **operating activities** generally involve the cash effects of transactions involved in the determination of net income and, hence, comprise the day-to-day operations of the company. Cash flows from **investing activities** are associated with the acquisition and disposal of long-term assets, such as property and equipment. Cash flows from **financing activities** relate to obtaining or repaying capital to be used in the business. IFRS permit more flexibility than US GAAP in classifying dividend and interest receipts and payments within these categories.

Exhibit 8 presents Volkswagen's statement of cash flows for the fiscal years ended December 31, 2017 and 2016.

EXHIBIT 8 Cash Flow Statement of the Volkswagen Group: 1 January to 31 December

€ million	2017	2016
Cash and cash equivalents at beginning of period	**18,833**	**20,462**
Earnings before tax	13,913	7,292
Income taxes paid	(3,664)	(3,315)
Depreciation and amortization of, and impairment losses on, intangible assets, property, plant and equipment, and investment property	10,562	10,100
Amortization of and impairment losses on capitalized development costs	3,734	3,586
Impairment losses on equity investments	136	130
Depreciation of and impairment losses on lease assets	7,734	7,107
Gain/loss on disposal of noncurrent assets and equity investments	(25)	(222)
Share of the result of equity-accounted investments	274	377
Other noncash expense/income	(480)	716
Change in inventories	(4,198)	(3,637)
Change in receivables (excluding financial services)	(1,660)	(2,155)
Change in liabilities (excluding financial liabilities)	5,302	5,048
Change in provisions	(9,443)	5,966
Change in lease assets	(11,478)	(12,074)
Change in financial services receivables	(11,891)	(9,490)
Cash flows from operating activities	**(1,185)**	**9,430**
Investments in intangible assets (excluding development costs), property, plant and equipment, and investment property	(13,052)	(13,152)
Additions to capitalized development costs	(5,260)	(5,750)
Acquisition of subsidiaries	(277)	(119)
Acquisition of other equity investments	(561)	(309)
Disposal of subsidiaries	496	(7)
Disposal of other equity investments	24	2,190
Proceeds from disposal of intangible assets, property, plant and equipment, and investment property	411	351
Change in investments in securities	1,376	(1,245)
Change in loans and time deposits	335	(2,638)
Cash flows from investing activities	**(16,508)**	**(20,679)**
Capital contributions	3,473	–
Dividends paid	(1,332)	(364)
Capital transactions with noncontrolling interest shareholders	–	(3)
Proceeds from issuance of bonds	30,279	14,262
Repayments of bonds	(17,877)	(23,601)
Changes in other financial liabilities	3,109	19,455
Lease payments	(28)	(36)
Cash flows from financing activities	**17,625**	**9,712**
Effect of exchange rate changes on cash and cash equivalents	(727)	(91)
Net change in cash and cash equivalents	**(796)**	**(1,628)**
Cash and cash equivalents at end of period	**18,038**	**18,833**

After showing the beginning cash balance, the operating activities section starts with profit before tax,[4] €13.9 billion for 2017, subtracts actual income tax payments, and then adjusts for the effects of non-cash transactions, accruals and deferrals, and transactions of an investing and financing nature to arrive at the amount of cash generated from operating activities: a negative €1.2 billion (a net use of cash). This approach to reporting cash flow from operating activities is termed the indirect method. The direct method of reporting cash flows from operating activities discloses major classes of gross cash receipts and gross cash payments. Examples are cash received from customers and cash paid to suppliers and employees.

The indirect method emphasizes the different perspectives of the income statement and cash flow statement. On the income statement, income is reported when earned, not necessarily when cash is received, and expenses are reported when incurred, not necessarily when paid. The cash flow statement presents another aspect of performance: the ability of a company to generate cash flow from running its business. Ideally, for an established company, the analyst would like to see that the primary source of cash flow is from operating activities as opposed to investing or financing activities.

The sum of the net cash flows from operating, investing, and financing activities and the effect of exchange rates on cash equals the net change in cash during the fiscal year. For Volkswagen, the sum of these four items was a negative €796 million in 2017, decreasing the company's cash and cash equivalents from €18.8 billion at the beginning of the period to €18.0 billion at the end of the period.

3.1.5. Financial Notes and Supplementary Schedules

The notes (also sometimes referred to as footnotes) that accompany the four financial statements are required and are an integral part of the complete set of financial statements. The notes provide information that is essential to understanding the information provided in the primary statements. Volkswagen's 2017 financial statements, for example, include more than 100 pages of notes.

The notes disclose the basis of preparation for the financial statements. For example, Volkswagen discloses that its fiscal year corresponds to the calendar year; its financial statements are prepared in accordance with IFRS as adopted by the European Union; the statements are prepared in compliance with German law; the statements are denominated in millions of euros unless otherwise specified; and the figures have been rounded, which might give rise to minor discrepancies when they are added. Volkswagen also states that its financial statements are on a consolidated basis—that is, including Volkswagen AG and all of the subsidiary companies it controls.

The notes also disclose information about the accounting policies, methods, and estimates used to prepare the financial statements. As will be discussed in later chapters, both IFRS and US GAAP allow some flexibility in choosing among alternative policies and methods when accounting for certain items. This flexibility aims to meet the divergent needs of many businesses for reporting a variety of economic transactions. In addition to differences in accounting policies and methods, differences arise as a result of estimates needed to record and measure transactions, events, and financial statement line items.

[4] Other companies may choose to begin with net income.

Overall, flexibility in accounting choices is necessary because, ideally, a company will select those policies, methods, and estimates that are allowable and most relevant and that fairly reflect the unique economic environment of the company's business and industry. Flexibility can, however, create challenges for the analyst because the use of different policies, methods, and estimates reduces comparability across different companies' financial statements. Comparability occurs when different companies' information is measured and reported in a similar manner over time. Comparability helps the analyst identify and analyze the real economic differences across companies, rather than differences that arise solely from different accounting choices. Because comparability of financial statements is a critical requirement for objective financial analysis, an analyst should be aware of the potential for differences in accounting choices even when comparing two companies that use the same set of accounting standards.

For example, if a company acquires a piece of equipment to use in its operations, accounting standards require that the cost of the equipment be reported as an expense by allocating its cost, less any residual value, in a systematic manner over the equipment's useful life. This allocation of the cost is known as **depreciation**. Accounting standards permit flexibility, however, in determining the manner in which each year's expense is determined. Two companies may acquire similar equipment but use different methods and assumptions to record the expense over time. An analyst's ability to compare the companies' performance is hindered by the difference. Analysts must understand reporting choices in order to make appropriate adjustments when comparing companies' financial positions and performance.

A company's significant accounting choices (policies, methods, and estimates) must be discussed in the notes to the financial statements. For example, a note containing a summary of significant accounting policies includes how the company recognizes its revenues and depreciates its non-current tangible assets. Analysts must understand the accounting choices a company makes and determine whether they are similar to those of other companies identified and used as benchmarks or comparables. If the policies of the companies being compared are different, the analyst who understands accounting and financial reporting can often make necessary adjustments so that the financial statement data used are more comparable.

For many companies, the financial notes and supplemental schedules provide explanatory information about every line item (or almost every line item) on the balance sheet and income statement, as illustrated by the note references in Volkswagen's balance sheet and income statement in Exhibits 3 and 5. In addition, note disclosures include information about the following (this is not an exhaustive list):

- financial instruments and risks arising from financial instruments,
- commitments and contingencies,
- legal proceedings,
- related-party transactions,
- subsequent events (i.e., events that occur after the balance sheet date),
- business acquisitions and disposals, and
- operating segments' performance.

EXHIBIT 9 Notes to the Consolidated Financial Statements of the Volkswagen Group: Selected Data on Operating Segments (Excerpt)

€ million	Passenger cars	Commercial vehicles	Power engineering	Financial services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	169,513	27,632	3,280	30,191	230,618	64	230,682
Intersegment sales revenue	18,892	7,568	3	3,541	30,004	–30,004	–
Total sales revenue	188,405	35,200	3,283	33,733	260,621	–29,939	230,682
Depreciation and amortization	11,363	2,557	371	6,797	21,089	-147	20,941
Impairment losses	704	2	0	574	1,280	0	1,280
Reversal of impairment losses	14	1	–	41	56	–	56
Segment result (operating result)	12,644	1,892	–55	2,673	17,153	–3,335	13,818
Share of the result of equity-accounted investments	3,390	83	1	9	3,482	–	3,482
Net interest result and other financial result	–1,920	–220	–2	–180	–2,321	–1,067	–3,388
Equity-accounted investments	6,724	753	18	710	8,205	–	8,205
Investments in intangible assets, property, plant and equipment, and investment property	15,713	1,915	159	421	18,208	104	18,313

An analyst uses a significant amount of judgment in deciding how to incorporate information from note disclosures into the analysis. For example, such information as financial instrument risk, contingencies, and legal proceedings can alert an analyst to risks that can affect a company's financial position and performance in the future and that require monitoring over time. As another example, information about a company's operating segments can be useful as a means of quickly understanding what a company does and how and where it earns money. The operating segment data shown in Exhibit 9 appear in the notes to the financial statements for Volkswagen. (The totals of the segment data do not equal the amounts reported in the company's financial statements because the financial statement data are adjusted for intersegment activities and unallocated items. The notes provide a complete reconciliation of the segment data to the reported data.) From the data in Exhibit 9, an analyst can quickly see that most of the company's revenues and operating profits come from the sale of passenger cars. Over 80 percent of the company's revenues was generated by this segment This segment accounted for over 90 percent of the company's total segment operating profits.

Experience using the disclosures made by a company and its competitors typically enhances an analyst's judgment about the relative importance of different disclosures and the ways in which they can be helpful.

3.1.6. Management Commentary or Management's Discussion and Analysis

Publicly held companies typically include a section in their annual reports where management discusses a variety of issues, including the nature of the business, past results, and future outlook. This section is referred to by a variety of names, including management report(ing), management commentary, operating and financial review, and management's discussion and analysis. Inclusion of a management report is recommended by the International Organization of Securities Commissions and frequently required by regulatory authorities, such as the US Securities and Exchange Commission (SEC) or the UK Financial Reporting Council (FRC). In Germany, management reporting has been required since 1931 and is audited.

The discussion by management is arguably one of the most useful parts of a company's annual report besides the financial statements themselves; however, other than excerpts from the financial statements, information included in the management commentary is typically unaudited. When using information from the management report, an analyst should be aware of whether the information is audited or unaudited.

To help improve the quality of the discussion by management, the International Accounting Standards Board (IASB) issued an IFRS Practice Statement "Management Commentary" that includes a framework for the preparation and presentation of management commentary. The framework provides guidance rather than sets forth requirements in a standard. The framework identifies five content elements of a "decision-useful management commentary": 1) the nature of the business; 2) management's objectives and strategies; 3) the company's significant resources, risks, and relationships; 4) results of operations; and 5) critical performance measures.

In the United States, the SEC requires listed companies to provide an MD&A and specifies the content.[5] Management must highlight any favorable or unfavorable trends and identify

[5]Relevant sections of SEC requirements are included for reference in the FASB ASC. The FASB ASC does not include sections of SEC requirements that deal with matters outside the basic financial statements, such as the MD&A.

significant events and uncertainties that affect the company's liquidity, capital resources, and results of operations. The MD&A must also provide information about the effects of inflation, changing prices, or other material events and uncertainties that may cause the future operating results and financial condition to materially depart from the current reported financial information. In addition, the MD&A must provide information about off-balance-sheet obligations and about contractual commitments such as purchase obligations. Management should also discuss the critical accounting policies that require them to make subjective judgments and that have a significant impact on reported financial results.

The management commentary, or MD&A, is a good starting place for understanding information in the financial statements. In particular, the forward-looking disclosures, such as those about planned capital expenditures, new store openings, or divestitures, can be useful in projecting a company's future performance. However, the commentary is only one input for the analyst seeking an objective and independent perspective on a company's performance and prospects.

The management report in Volkswagen's 2017 annual report includes much information of potential interest to an analyst. The lengthy report contains sections such as Goals and Strategies, Internal Management and Key Performance Indicators, Structure and Business Activities, Corporate Governance, Remuneration, Executive Bodies, Disclosures Required under Takeover Law, Diesel Issue, Business Development, Shares and Bonds, Results of Operations, and Report on Risks and Opportunities.

3.1.7. Auditor's Reports

Financial statements presented in companies' annual reports are generally required to be audited (examined) by an independent accounting firm in accordance with specified auditing standards. The independent auditor then provides a written opinion on the financial statements. This opinion is referred to as the audit report. Audit reports may vary in different jurisdictions, but the minimum components, including a specific statement of the auditor's opinion, are similar. Audits of financial statements may be required by contractual arrangement, law, or regulation.

International standards on auditing (ISAs) have been developed by the International Auditing and Assurance Standards Board (IAASB). This body has emerged from the International Federation of Accountants. ISAs have been adopted by many countries and are referenced in audit reports issued in those countries. Other countries, such as the United States, specify their own auditing standards. With the enactment of the Sarbanes–Oxley Act of 2002 in the United States, auditing standards for public companies are promulgated by the Public Company Accounting Oversight Board.

Under international standards for auditing (ISAs), the overall objectives of an auditor in conducting an audit of financial statements are

A. To obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, thereby enabling the auditor to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework; and
B. To report on the financial statements, and communicate as required by the ISAs, in accordance with the auditor's findings.[6]

[6] See the International Auditing and Assurance Standards Board (IAASB) *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements*.

Publicly traded companies may also have requirements set by regulators or stock exchanges, such as appointing an independent audit committee within its board of directors to oversee the audit process. The audit process provides a basis for the independent auditor to express an opinion on whether the information in the audited financial statements presents fairly the financial position, performance, and cash flows of the company in accordance with a specified set of accounting standards.

Audits are designed and conducted using sampling techniques, and financial statement line items may be based on estimates and assumptions. This means that the auditors cannot express an opinion that provides absolute assurance about the accuracy or precision of the financial statements. Instead, the independent audit report provides *reasonable assurance* that the financial statements are *fairly presented*, meaning that there is a high probability that the audited financial statements are free from *material* error, fraud, or illegal acts that have a direct effect on the financial statements.

The independent audit report expresses the auditor's opinion on the fairness of the audited financial statements, and specifies which financial statements were audited, the reporting entity, and the date. An *unqualified* audit opinion states that the financial statements give a "true and fair view" (international) or are "fairly presented" (international and US) in accordance with applicable accounting standards. This is also referred to as an "unmodified" or a "clean" opinion and is the one that analysts would like to see in a financial report. There are several other types of modified opinions. A *qualified* audit opinion is one in which there is some scope limitation or exception to accounting standards. Exceptions are described in the audit report with additional explanatory paragraphs so that the analyst can determine the importance of the exception. An *adverse* audit opinion is issued when an auditor determines that the financial statements materially depart from accounting standards and are not fairly presented. Finally, a *disclaimer of opinion* occurs when, for some reason, such as a scope limitation, the auditors are unable to issue an opinion.

The audit report also describes the basis for the auditor's opinion and, for listed companies, includes a discussion of Key Audit Matters (international) and Critical Audit Matters (US).[7] Key Audit Matters are defined as issues that the auditor considers to be most important, such as those that have a higher risk of misstatement, involve significant management judgment, or report the effects of significant transactions during the period. Critical Audit Matters are defined as issues that involve "especially challenging, subjective, or complex auditor judgment" and similarly include areas with higher risk of misstatement or involving significant management judgement and estimates.

Exhibit 10 presents the independent auditor's report for Volkswagen. Note that Volkswagen received an unqualified audit opinion (i.e., clean or unmodified opinion) from PricewaterhouseCoopers for the company's fiscal year ended December 31, 2017.

[7] Discussion of Key Audit Matters in the auditor's report is required by the International Standard on Auditing (ISA) ISA 701, effective in 2017, issued by the International Audit and Assurance Standards Board. Discussion of Critical Audit Matters in the auditor's report is required by the Auditor Reporting Standard AS 3101, effective for large filers' fiscal years ending on or after June 30, 2019, issued by the Public Company Accounting Oversight Board.

EXHIBIT 10 Volkswagen's Independent Audit Report

On completion of our audit, we issued the following unqualified auditor's report dated February 23, 2018. This report was originally prepared in German. In case of ambiguities the German version takes precedence:

To VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, and its subsidiaries (the Group), which comprise the income statement and the statement of comprehensive income, the balance sheet, the statement of changes in equity and the cash flow statement for the financial year from January 1 to December 31, 2017, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of VOLKSWAGEN AKTIENGESELLSCHAFT, which is combined with the Company's management report, for the financial year from January 1 to December 31, 2017. We have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report in accordance with the German legal requirements.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2017, and of its financial performance for the financial year from January 1 to December 31, 2017, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated

EXHIBIT 10 (Continued)

Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Emphasis of Matter – Diesel Issue

We draw attention to the information provided and statements made in section "Key Events" of the notes to the consolidated financial statements and in section "Diesel Issue" of the group management report with regard to the diesel issue including information about the underlying causes, the noninvolvement of members of the board of management as well as the impact on these financial statements.

Based on the results of the various measures taken to investigate the issue presented so far, which underlie the consolidated financial statements and the group management report, there is still no evidence that members of the Company's board of management were aware of the deliberate manipulation of engine management software before summer 2015. Nevertheless, should as a result of the ongoing investigation new solid knowledge be obtained showing that members of the board of management were informed earlier about the diesel issue, this could eventually have an impact on the consolidated financial statements and on the group management report for financial year 2017 and prior years.

The provisions for warranties and legal risks recorded so far are based on the presented state of knowledge. Due to the inevitable uncertainties associated with the current and expected litigation it cannot be excluded that a future assessment of the risks may be different.

Our opinions on the consolidated financial statements and on the group management report are not modified in respect of this matter.

Source: Volkswagen 2017 annual report

In the United States, under the Sarbanes–Oxley Act, the auditors must also express an opinion on the company's internal control systems. This information may be provided in a separate opinion or incorporated as a paragraph in the opinion related to the financial statements. The internal control system is the company's internal system that is designed, among other things, to ensure that the company's process for generating financial reports is sound. Although management has always been responsible for maintaining effective internal control, the Sarbanes–Oxley Act greatly increases management's responsibility for demonstrating that the company's internal controls are effective. Management of publicly traded companies in the United States are now required by securities regulators to explicitly accept responsibility for the effectiveness of internal control, evaluate the effectiveness of internal control using suitable control criteria, support the evaluation with sufficient competent evidence, and provide a report on internal control.

Although these reports and attestations provide some assurances to analysts, they are not infallible. The analyst must always use a degree of healthy skepticism when analyzing financial statements.

3.2. Other Sources of Information

The information described in Section 3.1 is generally provided to shareholders at least annually. In addition, companies also provide information on management and director compensation, company stock performance, and any potential conflicts of interest that may exist between management, the board, and shareholders. This information may appear in the company's annual report or other publicly available documents. Public companies often provide this information in proxy statements, which are distributed to shareholders about matters that are to be put to a vote at the annual (or special) meeting of shareholders.

Interim reports are also provided by the company either semiannually or quarterly, depending on the applicable regulatory requirements. Interim reports generally present the four primary financial statements and condensed notes but are not audited. These interim reports provide updated information on a company's performance and financial position since the last annual period.

Companies also provide relevant current information on their websites, in press releases, and in conference calls with analysts and investors. One type of press release, which analysts often consider to be particularly important, is the periodic earnings announcement. The earnings announcement often happens well before the company files its formal financial statements. Such earnings announcements are often followed by a conference call in which the company's senior executives describe the company's performance and answer questions posed by conference call participants. Following the earnings conference call, the investor relations portion of the company's website may post a recording of the call accompanied by slides and supplemental information that was discussed.

When performing financial statement analysis, analysts should review all these company sources of information as well as information from external sources regarding the economy, the industry, the company, and peer (comparable) companies. Information on the economy, industry, and peer companies is useful in putting the company's financial performance and position in perspective and in assessing the company's future. In most cases, information from sources apart from the company is crucial to an analyst's effectiveness. For example, an analyst studying a consumer-oriented company will typically seek direct experience with the products (taste the food or drink, use the shampoo or soap, visit the stores or hotels). An analyst following a highly regulated industry will study the existing and expected relevant regulations. An analyst following a highly technical industry will gain relevant expertise personally or seek input from a technical specialist. In sum, thorough research goes beyond financial reports.

The next section presents a framework for using all this information in financial statement analysis.

4. FINANCIAL STATEMENT ANALYSIS FRAMEWORK

Analysts work in a variety of positions within the investment management industry. Some are equity analysts whose main objective is to evaluate potential investments in a company's equity securities (i.e., the shares or stock it issues) as a basis for deciding whether a prospective investment is attractive and what an appropriate purchase price might be. Others are credit analysts who evaluate the credit-worthiness of a company to decide whether (and on what terms) a loan should be made or what credit rating should be assigned. Analysts may also be involved in a variety of other tasks, such as evaluating the performance of a subsidiary company, evaluating a private equity investment, or finding stocks that are overvalued for purposes of taking a short position.

This section presents a generic framework for financial statement analysis that can be used in these various tasks. The framework is summarized in Exhibit 11.[8]

EXHIBIT 11 Financial Statement Analysis Framework

Phase	Sources of Information	Output
1. Articulate the purpose and context of the analysis.	• The nature of the analyst's function, such as evaluating an equity or debt investment or issuing a credit rating. • Communication with client or supervisor on needs and concerns. • Institutional guidelines related to developing specific work product.	• Statement of the purpose or objective of analysis. • A list (written or unwritten) of specific questions to be answered by the analysis. • Nature and content of report to be provided. • Timetable and budgeted resources for completion.
2. Collect input data.	• Financial statements, other financial data, questionnaires, and industry/economic data. • Discussions with management, suppliers, customers, and competitors. • Company site visits (e.g., to production facilities or retail stores).	• Organized financial statements. • Financial data tables. • Completed questionnaires, if applicable.
3. Process data.	• Data from the previous phase.	• Adjusted financial statements. • Common-size statements. • Ratios and graphs. • Forecasts.
4. Analyze/interpret the processed data.	• Input data as well as processed data.	• Analytical results.
5. Develop and communicate conclusions and recommendations (e.g., with an analysis report).	• Analytical results and previous reports. • Institutional guidelines for published reports.	• Analytical report answering questions posed in Phase 1. • Recommendation regarding the purpose of the analysis, such as whether to make an investment or grant credit.
6. Follow-up.	• Information gathered by periodically repeating above steps as necessary to determine whether changes to holdings or recommendations are necessary.	• Updated reports and recommendations.

[8] Components of this framework have been adapted from van Greuning and Bratanovic (2003, p. 300) and from Benninga and Sarig (1997, pp. 134–156).

The following sections discuss the individual phases of financial statement analysis.

4.1. Articulate the Purpose and Context of Analysis

Prior to undertaking any analysis, it is essential to understand the purpose of the analysis. An understanding of the purpose is particularly important in financial statement analysis because of the numerous available techniques and the substantial amount of data.

Some analytical tasks are well defined, in which case articulating the purpose of the analysis requires little decision making by the analyst. For example, a periodic credit review of an investment-grade debt portfolio or an equity analyst's report on a particular company may be guided by institutional norms such that the purpose of the analysis is given. Furthermore, the format, procedures, and/or sources of information may also be given.

For other analytical tasks, articulating the purpose of the analysis requires the analyst to make decisions. The purpose of an analysis guides further decisions about the approach, the tools, the data sources, the format in which to report the results of the analysis, and the relative importance of different aspects of the analysis.

When facing a substantial amount of data, a less experienced analyst may be tempted to just start making calculations and generating financial ratios without considering what is relevant for the decision at hand. It is generally advisable to resist this temptation and thus avoid unnecessary or pointless efforts. Consider these questions: If you could have all the calculations and ratios completed instantly, what conclusion would you be able to draw? What question would you be able to answer? What decision would your answer support?

The analyst should also define the context at this stage. Who is the intended audience? What is the end product—for example, a final report explaining conclusions and recommendations? What is the time frame (i.e., when is the report due)? What resources and resource constraints are relevant to completion of the analysis? Again, the context may be predefined (i.e., standard and guided by institutional norms).

Having clarified the purpose and context of the financial statement analysis, the analyst should next compile the specific questions to be answered by the analysis. For example, if the purpose of the financial statement analysis (or, more likely, the particular stage of a larger analysis) is to compare the historical performance of three companies operating in a particular industry, specific questions would include the following: What has been the relative growth rate of the companies, and what has been their relative profitability?

4.2. Collect Data

Next, the analyst obtains the data required to answer the specific questions. A key part of this step is obtaining an understanding of the company's business, financial performance, and financial position (including trends over time and in comparison with peer companies). For historical analyses, financial statement data alone are adequate in some cases. For example, to screen a large number of companies to find those with a minimum level of profitability, financial statement data alone would be adequate. But to address more in-depth questions, such as why and how one company performed better or worse than its competitors, additional information would be required. As another example, to compare the historical performance of two companies in a particular industry, the historical financial statements would be sufficient to determine which had faster-growing sales or earnings and which was more profitable. However, a broader comparison with overall industry growth and profitability would obviously require industry data.

Furthermore, information on the economy and industry is necessary to understand the environment in which the company operates. Analysts often take a top-down approach whereby they 1) gain an understanding of the macroeconomic environment, such as prospects for growth in the economy and inflation, 2) analyze the prospects of the industry in which the company operates, based on the expected macroeconomic environment, and 3) determine the prospects for the company given the expected industry and macroeconomic environments. For example, an analyst may need to forecast future growth in earnings for a company. Past company data provide the platform for statistical forecasting; however, an understanding of economic and industry conditions can improve the analyst's ability to forecast earnings.

4.3. Process Data

After obtaining the requisite financial statement and other information, the analyst processes these data using appropriate analytical tools. For example, processing the data may involve computing ratios or growth rates; preparing common-size financial statements; creating charts; performing statistical analyses, such as regressions or Monte Carlo simulations; performing equity valuation; performing sensitivity analyses; or using any other analytical tools or combination of tools that are available and appropriate for the task. A comprehensive financial analysis at this stage would include the following:

- Reading and evaluating financial statements for each company being analyzed. This includes reading the notes and understanding what accounting standards have been used (for example, IFRS or US GAAP), what accounting choices have been made (for example, when to report revenue on the income statement), and what operating decisions have been made that affect reported financial statements (for example, leasing versus purchasing equipment).
- Making any needed adjustments to the financial statements to facilitate comparison when the unadjusted statements of the subject companies reflect differences in accounting standards, accounting choices, or operating decisions. Note that commonly used databases do not always make such analyst adjustments.
- Preparing or collecting common-size financial statement data (which scale data to directly reflect percentages [e.g., of sales] or changes [e.g., from the prior year]) and financial ratios (which are measures of various aspects of corporate performance based on financial statement elements). On the basis of common-size financial statements and financial ratios, analysts can evaluate a company's relative profitability, liquidity, leverage, efficiency, and valuation in relation to past results and/or peers' results.

4.4. Analyze/Interpret the Processed Data

Once the data have been processed, the next step—critical to any analysis—is to interpret the output. The answer to a specific question is seldom the numerical answer alone. Rather, the answer relies on the analyst's interpretation of the output, and the use of this interpreted output to support a conclusion or recommendation. The answers to the specific analytical questions may themselves achieve the underlying purpose of the analysis, but usually a conclusion or recommendation is required. For example, an equity analysis may require a buy, hold, or sell recommendation or a conclusion about the value of a share of stock. In support of the decision, the analysis would cite such information as target value, relative performance, expected future performance given a company's strategic position, quality of management, and whatever other information influenced the decision.

4.5. Develop and Communicate Conclusions/Recommendations

Communicating the conclusion or recommendation in an appropriate format is the next step. The appropriate format will vary by analytical task, by institution, and/or by audience. For example, an equity analyst's report would typically include the following components:

- summary and investment conclusion;
- earnings projections;
- valuation;
- business summary;
- risk, industry, and competitive analysis;
- historical performance; and
- forecasts.

The contents of reports may also be specified by regulatory agencies or professional standards. For example, the CFA Institute *Standards of Practice Handbook* (*Handbook*) dictates standards that must be followed in communicating recommendations. According to the *Handbook*:

> Standard V(B) states that members and candidates should communicate in a recommendation the factors that were instrumental in making the investment recommendation. A critical part of this requirement is to distinguish clearly between opinions and facts. In preparing a research report, the member or candidate must present the basic characteristics of the security(ies) being analyzed, which will allow the reader to evaluate the report and incorporate information the reader deems relevant to his or her investment decision making process.[9]

The *Handbook* requires that limitations to the analysis and any risks inherent to the investment be disclosed. Furthermore, it requires that any report include elements important to the analysis and conclusions so that readers can evaluate the conclusions themselves.

4.6. Follow-Up

The process does not end with the report. If an equity investment is made or a credit rating is assigned, periodic review is required to determine if the original conclusions and recommendations are still valid. In the case of a rejected investment, follow-up may not be necessary but may be useful in determining whether the analytical process is adequate or should be refined (for example, if a rejected investment turns out to be successful in the market, perhaps the rejection was due to inadequate analysis). Follow-up may involve repeating all the previous steps in the process on a periodic basis.

5. SUMMARY

The information presented in financial and other reports, including the financial statements, notes, and management's commentary, helps the financial analyst to assess a company's performance and financial position. An analyst may be called on to perform a financial analysis

[9] *Standards of Practice Handbook* (2014, p. 169).

for a variety of reasons, including the valuation of equity securities, the assessment of credit risk, the performance of due diligence on an acquisition, and the evaluation of a subsidiary's performance relative to other business units. Major considerations in both equity analysis and credit analysis are evaluating a company's financial position, its ability to generate profits and cash flow, and its potential to generate future growth in profits and cash flow.

This chapter has presented an overview of financial statement analysis. Among the major points covered are the following:

- The primary purpose of financial reports is to provide information and data about a company's financial position and performance, including profitability and cash flows. The information presented in the reports —including the financial statements and notes and management's commentary or management's discussion and analysis—allows the financial analyst to assess a company's financial position and performance and trends in that performance.
- The primary financial statements are the statement of financial position (i.e., the balance sheet), the statement of comprehensive income (or two statements consisting of an income statement and a statement of comprehensive income), the statement of changes in equity, and the statement of cash flows.
- The balance sheet discloses what resources a company controls (assets) and what it owes (liabilities) at a specific point in time. Owners' equity represents the net assets of the company; it is the owners' residual interest in, or residual claim on, the company's assets after deducting its liabilities. The relationship among the three parts of the balance sheet (assets, liabilities, and owners' equity) may be shown in equation form as follows: Assets = Liabilities + Owners' equity.
- The income statement presents information on the financial results of a company's business activities over a period of time. The income statement communicates how much revenue and other income the company generated during a period and what expenses, including losses, it incurred in connection with generating that revenue and other income. The basic equation underlying the income statement is Revenue + Other income – Expenses = Net income.
- The statement of comprehensive income includes all items that change owners' equity except transactions with owners. Some of these items are included as part of net income, and some are reported as other comprehensive income (OCI).
- The statement of changes in equity provides information about increases or decreases in the various components of owners' equity.
- Although the income statement and balance sheet provide measures of a company's success, cash and cash flow are also vital to a company's long-term success. Disclosing the sources and uses of cash helps creditors, investors, and other statement users evaluate the company's liquidity, solvency, and financial flexibility.
- The notes (also referred to as footnotes) that accompany the financial statements are an integral part of those statements and provide information that is essential to understanding the statements. Analysts should evaluate note disclosures regarding the use of alternative accounting methods, estimates, and assumptions.
- In addition to the financial statements, a company provides other sources of information that are useful to the financial analyst. As part of his or her analysis, the financial analyst should read and assess this additional information, particularly that presented in the management commentary (also called management report[ing], operating and financial review, and management's discussion and analysis [MD&A]).

- A publicly traded company must have an independent audit performed on its annual financial statements. The auditor's report expresses an opinion on the financial statements and provides some assurance about whether the financial statements fairly present a company's financial position, performance, and cash flows. In addition, for US publicly traded companies, auditors must also express an opinion on the company's internal control systems.
- Information on the economy, industry, and peer companies is useful in putting the company's financial performance and position in perspective and in assessing the company's future. In most cases, information from sources apart from the company are crucial to an analyst's effectiveness.
- The financial statement analysis framework provides steps that can be followed in any financial statement analysis project. These steps are:
  - articulate the purpose and context of the analysis;
  - collect input data;
  - process data;
  - analyze/interpret the processed data;
  - develop and communicate conclusions and recommendations; and
  - follow up.

REFERENCES

Benninga, Simon Z., and Oded H. Sarig. 1997. *Corporate Finance: A Valuation Approach*. New York: McGraw-Hill Publishing.

International Auditing and Assurance Standards Board (IAASB). *Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements*, Standard 200, available at www.ifac.org/IAASB.

van Greuning, Hennie, and Sonja Brajovic Bratanovic. 2003. *Analyzing and Managing Banking Risk: A Framework for Assessing Corporate Governance and Financial Risk*. Washington, DC: World Bank.

PRACTICE PROBLEMS

1. Providing information about the performance and financial position of companies so that users can make economic decisions *best* describes the role of:
   A. auditing.
   B. financial reporting.
   C. financial statement analysis.
2. Which of the following *best* describes the role of financial statement analysis?
   A. To provide information about a company's performance.
   B. To provide information about a company's changes in financial position.
   C. To form expectations about a company's future performance and financial position.
3. The role of financial statement analysis is *best* described as:
   A. providing information useful for making investment decisions.
   B. evaluating a company for the purpose of making economic decisions.
   C. using financial reports prepared by analysts to make economic decisions.

4. A company's financial position would *best* be evaluated using the:
   A. balance sheet.
   B. income statement.
   C. statement of cash flows.
5. A company's profitability for a period would *best* be evaluated using the:
   A. balance sheet.
   B. income statement.
   C. statement of cash flows.
6. The financial statement that presents a shareholder's residual claim on assets is the:
   A. balance sheet.
   B. income statement.
   C. cash flow statement.
7. A company's profitability over a period of time is *best* evaluated using the:
   A. balance sheet.
   B. income statement.
   C. cash flow statement.
8. The income statement is *best* used to evaluate a company's:
   A. financial position.
   B. sources of cash flow.
   C. financial results from business activities.
9. Accounting policies, methods, and estimates used in preparing financial statements are *most likely* to be found in the:
   A. auditor's report.
   B. management commentary.
   C. notes to the financial statements.
10. Information about management and director compensation are *least likely* to be found in the:
    A. auditor's report.
    B. proxy statement.
    C. notes to the financial statements.
11. Information about a company's objectives, strategies, and significant risks are *most likely* to be found in the:
    A. auditor's report.
    B. management commentary.
    C. notes to the financial statements.
12. Which of the following *best* describes why the notes that accompany the financial statements are required? The notes:
    A. permit flexibility in statement preparation.
    B. standardize financial reporting across companies.
    C. provide information necessary to understand the financial statements.
13. What type of audit opinion is preferred when analyzing financial statements?
    A. Qualified.
    B. Adverse.
    C. Unqualified.

14. An auditor determines that a company's financial statements are prepared in accordance with applicable accounting standards except with respect to inventory reporting. This exception is *most likely* to result in an audit opinion that is:
    A. adverse.
    B. qualified.
    C. unqualified.

15. An independent audit report is *most likely* to provide:
    A. absolute assurance about the accuracy of the financial statements.
    B. reasonable assurance that the financial statements are fairly presented.
    C. a qualified opinion with respect to the transparency of the financial statements.

16. Interim financial reports released by a company are *most likely* to be:
    A. monthly.
    B. unaudited.
    C. unqualified.

17. Which of the following sources of information used by analysts is found outside a company's annual report?
    A. Auditor's report.
    B. Peer company analysis.
    C. Management's discussion and analysis.

18. Ratios are an input into which step in the financial statement analysis framework?
    A. Process data.
    B. Collect input data.
    C. Analyze/interpret the processed data.

19. Which phase in the financial statement analysis framework is *most likely* to involve producing updated reports and recommendations?
    A. Follow-up.
    B. Analyze/interpret the processed data.
    C. Develop and communicate conclusions and recommendations.