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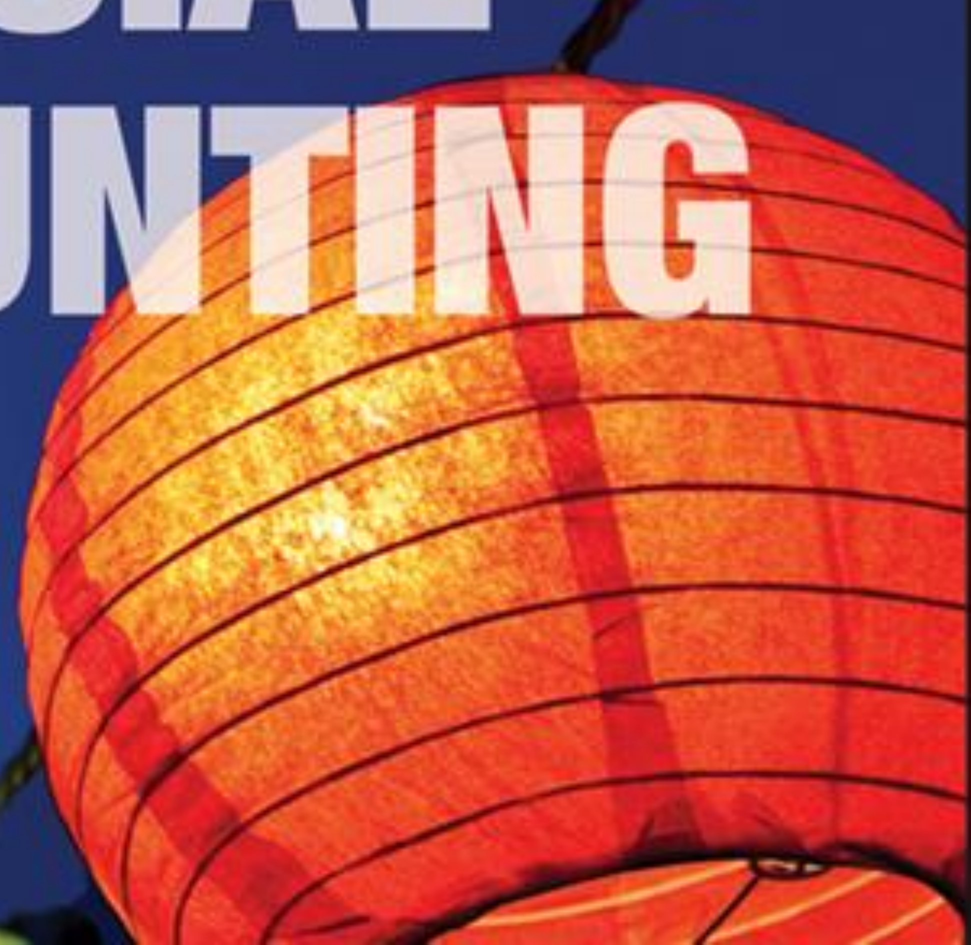
FINANCIAL ACCOUNTING 3e



IFRS EDITION

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PREVIEW OF CHAPTER 14

FINANCIAL STATEMENT ANALYSIS

Basics of Financial Statement Analysis	Horizontal and Vertical Analysis	Ratio Analysis	Earning Power and Unusual Items	Quality of Earnings
• Need for comparative analysis • Tools of analysis	• Statement of financial position • Income statement • Retained earnings statement	• Liquidity • Profitability • Solvency • Summary	• Discontinued operations • Changes in accounting principle • Comprehensive income	• Alternative accounting methods • Pro forma income • Improper recognition

CHAPTER
14

Financial Statement Analysis

LEARNING OBJECTIVES

After studying this chapter, you should be able to:

1. Discuss the need for comparative analysis.
2. Identify the tools of financial statement analysis.
3. Explain and apply horizontal analysis.
4. Describe and apply vertical analysis.
5. Identify and compute ratios used in analyzing a firm's liquidity, profitability, and solvency.
6. Understand the concept of earning power, and how discontinued operations are presented.
7. Understand the concept of quality of earnings.

Basics of Financial Statement Analysis

Need for Comparative Analysis

Learning Objective 1
Discuss the need for comparative analysis.

- Every item reported in a financial statement has significance.
- Various analytical techniques are used to evaluate the significance of financial statement data.

Basics of Financial Statement Analysis

Learning Objective 2
Identify the tools of financial statement analysis.

Analyzing financial statements involves:

Characteristics	Comparison Bases	Tools of Analysis
Liquidity	Intracompany	Horizontal
Profitability	Industry averages	Vertical
Solvency	Intercompany	Ratio

Horizontal Analysis

Learning Objective 3
Explain and apply horizontal analysis.

Horizontal analysis, also called **trend analysis**, is a technique for evaluating a series of financial statement data over a period of time.

- **Purpose** is to determine the increase or decrease that has taken place.
- **Commonly applied to** the statement of financial position, income statement, and retained earnings statement.

Horizontal Analysis

QUALITY DEPARTMENT STORE Condensed Statements of Financial Position December 31				
			Increase or (Decrease) during 2017	
	2017	2016	Amount	Percent
Assets				
Intangible assets	€ 15,000	€ 17,500	€ (2,500)	(14.3%)
Plant assets (net)	800,000	632,500	167,500	26.5%
Current assets	1,020,000	945,000	75,000	7.9%
Total assets	€1,835,000	€1,595,000	€240,000	15.0%
Equity				
Share capital—ordinary, €1 par	€ 275,400	€ 270,000	€ 5,400	2.0%
Retained earnings	727,600	525,000	202,600	38.6%
Total equity	1,003,000	795,000	208,000	26.2%
Liabilities				
Non-current liabilities	€ 487,500	€ 497,000	€ (9,500)	(1.9%)
Current liabilities	344,500	303,000	41,500	13.7%
Total liabilities	832,000	800,000	32,000	4.0%
Total equity and liabilities	€1,835,000	€1,595,000	€240,000	15.0%

Illustration 14-5
Horizontal analysis of statements of financial position

Changes suggest that the company expanded its asset base during 2017 and **financed this expansion primarily by retaining income** rather than assuming additional long-term debt.

Horizontal Analysis

QUALITY DEPARTMENT STORE Condensed Income Statements For the Years Ended December 31			Increase or (Decrease) during 2017	
	2017	2016	Amount	Percent
Sales revenue	€2,195,000	€1,960,000	€235,000	12.0%
Sales returns and allowances	98,000	123,000	(25,000)	(20.3%)
Net sales	2,097,000	1,837,000	260,000	14.2%
Cost of goods sold	1,281,000	1,140,000	141,000	12.4%
Gross profit	816,000	697,000	119,000	17.1%
Selling expenses	253,000	211,500	41,500	19.6%
Administrative expenses	104,000	108,500	(4,500)	(4.1%)
Total operating expenses	357,000	320,000	37,000	11.6%
Income from operations	459,000	377,000	82,000	21.8%
Other income and expense				
Interest and dividends	9,000	11,000	(2,000)	(18.2%)
Interest expense	36,000	40,500	(4,500)	(11.1%)
Income before income taxes	432,000	347,500	84,500	24.3%
Income tax expense	168,200	139,000	29,200	21.0%
Net income	€ 263,800	€ 208,500	€ 55,300	26.5%

Illustration 14-6
Horizontal analysis of Income statements

Overall, gross profit and net income were up substantially. Gross profit increased 17.1%, and net income, 26.5%. Quality's profit trend appears favorable.

Horizontal Analysis

QUALITY DEPARTMENT STORE Retained Earnings Statements For the Years Ended December 31				
			Increase or (Decrease) during 2017	
	2017	2016	Amount	Percent
Retained earnings, Jan. 1	€525,000	€376,500	€148,500	39.4%
Add: Net income	263,800	208,500	55,300	26.5%
	788,800	585,000	203,800	
Deduct: Dividends	61,200	60,000	1,200	2.0%
Retained earnings, Dec. 31	€727,600	€525,000	€202,600	38.6%

Illustration 14-7
Horizontal analysis of retained earnings statements

In the horizontal analysis of the statement of financial position the ending retained earnings increased 38.6%. As indicated earlier, the company retained a significant portion of net income to finance additional plant facilities.

> DO IT!

Summary financial information for Rosepatch Company is as follows.

	December 31, 2017	December 31, 2016
Plant assets (net)	€756,000	€420,000
Current assets	234,000	180,000
Total assets	€990,000	€600,000

Compute the amount and percentage changes in 2017 using horizontal analysis, assuming 2016 is the base year.

	Increase in 2017	
	Amount	Percent
Plant assets (net)		
Current assets		
Total assets		

Vertical Analysis

Learning Objective 4
Describe and apply vertical analysis.

Vertical analysis, also called **common-size analysis**, is a technique that expresses each financial statement item as a percent of a base amount.

- On an **income statement**, we might say that selling expenses are 16% of net sales.
- On a statement of financial position, we might say that current assets are 22% of total assets.
- Vertical analysis is commonly applied to the statement of financial position and the income statement.

Vertical Analysis

QUALITY DEPARTMENT STORE Condensed Statements of Financial Position December 31	2017		2016	
	Amount	Percent	Amount	Percent
Assets				
Intangible assets	€ 15,000	0.8%	€ 17,500	1.1%
Plant assets (net)	800,000	43.6%	632,500	39.7%
Current assets	1,020,000	55.6%	945,000	59.2%
Total assets	€1,835,000	100.0%	€1,595,000	100.0%
Equity				
Share capital—ordinary, €1 par	€ 275,400	15.0%	€ 270,000	16.9%
Retained earnings	727,600	39.7%	525,000	32.9%
Total equity	1,003,000	54.7%	795,000	49.8%
Liabilities				
Non-current liabilities	€ 487,500	26.5%	€ 497,000	31.2%
Current liabilities	344,500	18.8%	303,000	19.0%
Total liabilities	832,000	45.3%	800,000	50.2%
Total equity and liabilities	€1,835,000	100.0%	€1,595,000	100.0%

Illustration 14-8
Vertical analysis of statements of financial position

These results reinforce the earlier observations that **Quality is choosing to finance its growth through retention of earnings rather than through issuing additional debt**.

Vertical Analysis

QUALITY DEPARTMENT STORE Condensed Income Statements For the Years Ended December 31				
	2017		2016	
	Amount	Percent	Amount	Percent
Sales revenue	€2,195,000	104.7%	€1,960,000	106.7%
Sales returns and allowances	98,000	4.7%	123,000	6.7%
Net sales	2,097,000	100.0%	1,837,000	100.0%
Cost of goods sold	1,281,000	61.1%	1,140,000	62.1%
Gross profit	816,000	38.9%	697,000	37.9%
Selling expenses	253,000	12.0%	211,500	11.5%
Administrative expenses	104,000	5.0%	108,500	5.9%
Total operating expenses	357,000	17.0%	320,000	17.4%
Income from operations	459,000	21.9%	377,000	20.5%
Other income and expense				
Interest and dividends	9,000	0.4%	11,000	0.6%
Interest expense	36,000	1.7%	40,500	2.2%
Income before income taxes	432,000	20.6%	347,500	18.9%
Income tax expense	168,200	8.0%	139,000	7.5%
Net income	€ 263,800	12.6%	€ 208,500	11.4%

Illustration 14-9
Vertical analysis of Income statements

Quality appears to be a profitable enterprise that is becoming even more successful.

Vertical Analysis

Enables a comparison of companies of different sizes.

CONDENSED INCOME STATEMENTS
For the Year Ended December 31, 2017
(in thousands)

	Quality Department Store		Park Street	
	Amount	**Percent**	**Amount**	**Percent**
Net sales	€2,097	100.0%	€17,556,000	100.0%
Cost of goods sold	1,281	61.1%	10,646,000	60.6%
Gross profit	816	38.9%	6,910,000	39.4%
Selling and administrative expenses	357	17.0%	6,247,000	35.6%
Income from operations	459	21.9%	663,000	3.8%
Other income and expense (including income taxes)	195	9.3%	412,000	2.4%
Net income	€ 264	12.6%	€ 251,000	1.4%

Illustration 14-10
Intercompany income statement comparison

Ratio Analysis

Learning Objective 5
Identify and compute ratios used in analyzing a firm's liquidity, profitability, and solvency.

Ratio analysis expresses the relationship among selected items of financial statement data.

Financial Ratio Classifications

Liquidity	Profitability	Solvency
Measure short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash.	Measure the income or operating success of a company for a given period of time.	Measure the ability of the company to survive over a long period of time.

ANATOMY OF A FRAUD

Sometimes, relationships between numbers can be used by companies to detect fraud. The numeric relationships that can reveal fraud can be such things as financial ratios that appear abnormal, or statistical abnormalities in the numbers themselves. For example, the fact that WorldCom's (USA) line costs, as a percentage of either total expenses or revenues, differed very significantly from its competitors should have alerted people to the possibility of fraud. Or, consider the case of a bank manager, who cooperated with a group of his friends to defraud the bank's credit card department. The manager's friends would apply for credit cards and then run up balances of slightly less than $5,000. The bank had a policy of allowing bank personnel to write off balances of less than $5,000 without seeking supervisor approval. The fraud was detected by applying statistical analysis based on Benford's Law. Benford's Law states that in a random collection of numbers, the frequency of lower digits (e.g., 1, 2, or 3) should be much higher than higher digits (e.g., 7, 8, or 9). In this case, bank auditors analyzed the first two digits of amounts written off. There was a spike at 48 and 49, which was not consistent with what would be expected if the numbers were random.

Total take: Thousands of dollars

(continued)

ANATOMY OF A FRAUD

Total take: Thousands of dollars

The Missing Control

Ratio Analysis

Liquidity Ratios

Measure the short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash.

- Short-term creditors such as bankers and suppliers are particularly interested in assessing liquidity.
- Ratios include the **current ratio**, the **acid-test ratio**, **accounts receivable turnover**, and **inventory turnover**.

1. CURRENT RATIO

Illustration 14-12

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Quality Department Store

2017	2016
$\frac{€1,020,000}{€344,500} = 2.96:1$	$\frac{€945,000}{€303,000} = 3.12:1$
Industry average: **1.70:1**	Park Street: **2.05:1**

Ratio of 2.96:1 means that for every dollar of current liabilities, Quality has €2.96 of current assets.

Investor Insight How to Manage the Current Ratio

The apparent simplicity of the current ratio can have real-world limitations because adding equal amounts to both the numerator and the denominator causes the ratio to decrease. Assume, for example, that a company has $2,000,000 of current assets and $1,000,000 of current liabilities; its current ratio is 2:1. If it purchases $1,000,000 of inventory on account, it will have $3,000,000 of current assets and $2,000,000 of current liabilities; its current ratio decreases to 1.5:1. If, instead, the company pays off $500,000 of its current liabilities, it will have $1,500,000 of current assets and $500,000 of current liabilities; its current ratio increases to 3:1. Thus, any trend analysis should be done with care because the ratio is susceptible to quick changes and is easily influenced by management.

Ratio Analysis

Liquidity Ratios

2. ACID-TEST RATIO

Illustration 14-13

QUALITY DEPARTMENT STORE
Statement of Financial Position (partial)

	2017	2016
Current assets		
Prepaid expenses	€ 50,000	€ 40,000
Inventory	620,000	500,000
Accounts receivable (net*)	**230,000**	**180,000**
Short-term investments	**20,000**	**70,000**
Cash	**100,000**	**155,000**
Total current assets	€1,020,000	€ 945,000

*Allowance for doubtful accounts is €10,000 at the end of each year.

2. ACID-TEST RATIO

Illustration 14-14

$$\text{Acid-Test Ratio} = \frac{\text{Cash + Short-Term Investments + Receivables (Net)}}{\text{Current Liabilities}}$$

Quality Department Store

2017

$$\frac{€100{,}000 + €20{,}000 + €230{,}000}{€344{,}500} = 1.02{:}1$$

2016

$$\frac{€155{,}000 + €70{,}000 + €180{,}000}{€303{,}000} = 1.34{:}1$$

Industry average	Park Street
0.70:1	**1.05:1**

Acid-test ratio measures immediate liquidity.

Ratio Analysis

Liquidity Ratios

3. ACCOUNTS RECEIVABLE TURNOVER

Illustration 14-15

$$\text{Accounts Receivable Turnover} = \frac{\text{Net Credit Sales}}{\text{Average Net Accounts Receivable}}$$

Quality Department Store

2017

$$\frac{€2{,}097{,}000}{\left[\frac{€180{,}000 + €230{,}000}{2}\right]} = 10.2 \text{ times}$$

2016

$$\frac{€1{,}837{,}000}{\left[\frac{€200{,}000 + €180{,}000}{2}\right]} = 9.7 \text{ times}$$

Industry average	Park Street
46.4 times	**37.2 times**

Measures the number of times, on average, the company collects receivables during the period.

Ratio Analysis

Liquidity Ratios

Accounts Receivable Turnover

$$\frac{€2{,}097{,}000}{(€180{,}000 + €230{,}000) \div 2} = 10.2 \text{ times}$$

A variant of the Accounts Receivable Turnover ratio is to convert it to an **AVERAGE COLLECTION PERIOD** in terms of days.

365 days ÷ 10.2 times = every 35.78 days

Receivables are collected on average every 36 days.

4. INVENTORY TURNOVER

Illustration 14-16

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Quality Department Store

2017	2016
$\dfrac{€1{,}281{,}000}{\left[\dfrac{€500{,}000 + €620{,}000}{2}\right]} = 2.3 \text{ times}$	$\dfrac{€1{,}140{,}000}{\left[\dfrac{€450{,}000 + €500{,}000}{2}\right]} = 2.4 \text{ times}$

Industry average	Park Street
4.3 times	**3.1 times**

Measures the number of times, on average, the inventory is sold during the period.

Ratio Analysis

Liquidity Ratios

Inventory Turnover

$$\frac{€1{,}281{,}000}{(€500{,}000 + €620{,}000) \div 2} = 2.3 \text{ times}$$

A variant of inventory turnover is the **DAYS IN INVENTORY**.

365 days / 2.3 times = every 159 days

Inventory turnover ratios vary considerably among industries.

LO 5

Ratio Analysis

Profitability Ratios

Measure the income or operating success of a company for a given period of time.

- Income, or the lack of it, affects the company's ability to obtain debt and equity financing, liquidity position, and the ability to grow.
- Ratios include the **profit margin**, **asset turnover**, **return on assets**, **return on ordinary shareholders' equity**, **earnings per share**, **price-earnings**, and **payout** ratio.

5. PROFIT MARGIN

Illustration 14-17

$$\text{Profit Margin} = \frac{\text{Net Income}}{\text{Net Sales}}$$

Quality Department Store

2017	2016
$\frac{€263,800}{€2,097,000} = 12.6\%$	$\frac{€208,500}{€1,837,000} = 11.4\%$

Industry average	Park Street
8.0%	**1.4%**

Measures the percentage of each dollar of sales that results in net income.

6. ASSET TURNOVER

Illustration 14-18

$$\text{Asset Turnover} = \frac{\text{Net Sales}}{\text{Average Assets}}$$

Quality Department Store

2017

$$\frac{€2{,}097{,}000}{\left[\dfrac{€1{,}595{,}000 + €1{,}835{,}000}{2}\right]} = 1.2 \text{ times}$$

2016

$$\frac{€1{,}837{,}000}{\left[\dfrac{€1{,}446{,}000 + €1{,}595{,}000}{2}\right]} = 1.2 \text{ times}$$

Industry average

1.4 times

Park Street

1.4 times

Measures how efficiently a company uses its assets to generate sales.

7. RETURN ON ASSET

Illustration 14-19

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Average Assets}}$$

Quality Department Store

2017

$$\frac{€263{,}800}{\left[\frac{€1{,}595{,}000 + €1{,}835{,}000}{2}\right]} = 15.4\%$$

2016

$$\frac{€208{,}500}{\left[\frac{€1{,}446{,}000 + €1{,}595{,}000}{2}\right]} = 13.7\%$$

Industry average	Park Street
8.9%	**2.4%**

An overall measure of profitability.

8. RETURN ON ORDINARY SHAREHOLDERS' EQUITY

Illustration 14-20

$$\text{Return on Ordinary Shareholders' Equity} = \frac{\text{Net Income} - \text{Preference Dividends}}{\text{Average Ordinary Shareholders' Equity}}$$

Quality Department Store

2017

$$\frac{€263{,}800 - €0}{\left[\dfrac{€795{,}000 + €1{,}003{,}000}{2}\right]} = 29.3\%$$

2016

$$\frac{€208{,}500 - €0}{\left[\dfrac{€667{,}000 + €795{,}000}{2}\right]} = 28.5\%$$

Industry average	Park Street
18.3%	**6.4%**

Shows how many euros of net income the company earned for each euro invested by the owners.

9. EARNINGS PER SHARE (EPS)

Illustration 14-21

$$\text{Earnings per Share} = \frac{\text{Net Income} - \text{Preference Dividends}}{\text{Weighted-Average Ordinary Shares Outstanding}}$$

Quality Department Store

2017

$$\frac{€263{,}800 - €0}{\left[\dfrac{270{,}000 + 275{,}400}{2}\right]} = €0.97$$

2016

$$\frac{€208{,}500 - €0}{270{,}000} = €0.77$$

A measure of the net income earned on each ordinary share.

10. PRICE-EARNINGS RATIO

Illustration 14-22

$$\text{Price-Earnings Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings per Share}}$$

Quality Department Store

2017	2016
$\frac{€12.00}{€0.97} = 12.4$ times	$\frac{€8.00}{€0.77} = 10.4$ times

Industry average	Park Street
21.3 times	**17.2 times**

Reflects investors' assessments of a company's future earnings.

11. PAYOUT RATIO

Illustration 14-23

$$\text{Payout Ratio} = \frac{\text{Cash Dividends}}{\text{Net Income}}$$

Quality Department Store

2017	2016
$\frac{€61{,}200}{€263{,}800} = 23.2\%$	$\frac{€60{,}000}{€208{,}500} = 28.8\%$
Industry average	Park Street
16.1%	**63.0%**

Measures the percentage of earnings distributed in the form of cash dividends.

Ratio Analysis

Solvency Ratios

Solvency ratios measure the ability of a company to survive over a long period of time.

- **Debt to Total Assets** and
- **Times Interest Earned**

are two ratios that provide information about debt-paying ability.

12. DEBT TO TOTAL ASSETS RATIO

Illustration 14-24

$$\text{Debt to Total Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Quality Department Store

2017	2016
$\frac{€832,000}{€1,835,000} = 45.3\%$	$\frac{€800,000}{€1,595,000} = 50.2\%$
Industry average	Park Street
34.2%	**62.0%**

Measures the percentage of the total assets that creditors provide.

13. TIMES INTEREST EARNED

Illustration 14-25

$$\text{Times Interest Earned} = \frac{\text{Income before Income Taxes and Interest Expense}}{\text{Interest Expense}}$$

Quality Department Store

2017	2016
$\frac{€468,000}{€36,000} = 13$ times	$\frac{€388,000}{€40,500} = 9.6$ times
Industry average	Park Street
16.1 times	**2.9 times**

Provides an indication of the company's ability to meet interest payments as they come due.

Ratio Analysis

Summary of Ratios

Illustration 14-26

Ratio	Formula	Purpose or Use
Liquidity Ratios		
1. Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	Measures short-term debt-paying ability.
2. Acid-test (quick) ratio	$\frac{\text{Cash + Short-term investments + Receivables (net)}}{\text{Current liabilities}}$	Measures immediate short-term liquidity.
3. Accounts receivable turnover	$\frac{\text{Net credit sales}}{\text{Average net accounts receivable}}$	Measures liquidity of accounts receivable.
4. Inventory turnover	$\frac{\text{Cost of goods sold}}{\text{Average inventory}}$	Measures liquidity of inventory.

Summary of Ratios

Illustration 14-26

Ratio	Formula	Purpose or Use
Profitability Ratios		
5. Profit margin	$\frac{\text{Net income}}{\text{Net sales}}$	Measures net income generated by each currency unit of sales.
6. Asset turnover	$\frac{\text{Net sales}}{\text{Average assets}}$	Measures how efficiently assets are used to generate sales.
7. Return on assets	$\frac{\text{Net income}}{\text{Average assets}}$	Measures overall profitability of assets.
8. Return on ordinary shareholders' equity	$\frac{\text{Net income} - \text{Preference dividends}}{\text{Average ordinary shareholders' equity}}$	Measures profitability of owners' investment.
9. Earnings per share (EPS)	$\frac{\text{Net income} - \text{Preference dividends}}{\text{Weighted-average ordinary shares outstanding}}$	Measures net income earned on each ordinary share.
10. Price-earnings (P-E) ratio	$\frac{\text{Market price per share}}{\text{Earnings per share}}$	Measures the ratio of the market price per share to earnings per share.
11. Payout ratio	$\frac{\text{Cash dividends}}{\text{Net income}}$	Measures percentage of earnings distributed in the form of cash dividends.

Summary of Ratios

Illustration 14-26

Ratio	Formula	Purpose or Use
Solvency Ratios		
12. Debt to total assets ratio	$\frac{\text{Total debt}}{\text{Total assets}}$	Measures the percentage of total assets provided by creditors.
13. Times interest earned	$\frac{\text{Income before income taxes and interest expense}}{\text{Interest expense}}$	Measures ability to meet interest payments as they come due.

LO 5

Earning Power and Unusual Items

Learning Objective 6
Understand the concept of earning power, and how discontinued operations are presented.

Earning power means the normal level of income to be obtained in the future.

To determine earning power or regular income, discontinued operations are

1. **separately identified** on the income statement.
2. reported **net of income taxes**.

Earning Power and Irregular Items

Discontinued Operations

(a) Disposal of a **significant component** of a business.

(b) Report the income (loss) from discontinued operations in two parts:

1. income (loss) from operations (net of tax) and
2. gain (loss) on disposal (net of tax).

Discontinued Operations

Illustration: During 2017 Acro Energy Ltd. has income before income taxes of NT$800,000. During 2017, Acro discontinued and sold its unprofitable chemical division. The loss in 2017 from chemical operations (net of NT$60,000 taxes) was NT$140,000. The loss on disposal of the chemical division (net of NT$30,000 taxes) was NT$70,000. Assuming a 30% tax rate on income.

Discontinued Operations

ACRO ENERGY LTD. Income Statement (partial) For the Year Ended December 31, 2017		
Income before income taxes		NT$ 800,000
Income tax expense		240,000
Income from continuing operations		560,000
Discontinued operations		
Loss from operations of chemical division, net of NT$60,000 income tax savings	**NT$140,000**	
Loss from disposal of chemical division, net of NT$30,000 income tax savings	**70,000**	**210,000**
Net income		NT$ 350,000

Illustration 14-27
Statement presentation of discontinued operations

Investor Insight What Does "Non-Recurring" Really Mean?

Many companies incur restructuring charges as they attempt to reduce costs. They often label these items in the income statement as "non-recurring" charges to suggest that they are isolated events which are unlikely to occur in future periods. The question for analysts is, are these costs really one-time, "non-recurring" events, or do they reflect problems that the company will be facing for many periods in the future? If they are one-time events, they can be largely ignored when trying to predict future earnings. But some companies report "one-time" restructuring charges over and over again. For example, toothpaste and other consumer-goods giant Procter & Gamble Co. (USA) reported a restructuring charge in 12 consecutive quarters. Motorola (USA) had "special" charges in 14 consecutive quarters. On the other hand, other companies have a restructuring charge only once in a five- or ten-year period. There appears to be no substitute for careful analysis of the numbers that comprise net income.

LO 6

Earning Power and Irregular Items

Change in Accounting Principle

- Occurs when the principle used in the current year is different from the one used in the preceding year.
- Accounting rules permit a change if justified.
- Most changes are reported retroactively.
- Example would include a change in inventory costing method (such as FIFO to average-cost).

Earning Power and Irregular Items

Comprehensive Income

Income Statement (in thousands)	
Sales	€ 285,000
Cost of goods sold	149,000
Gross profit	136,000
Operating expenses:	
Advertising expense	10,000
Depreciation expense	43,000
Total operating expense	53,000
Income from operations	83,000
Other revenue:	
Interest revenue	17,000
Total other	17,000
Income before taxes	100,000
Income tax expense	24,000
Net income	€ 76,000

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All changes in equity except those resulting from investments by shareholders and distributions to shareholders.

Reported in Equity

- Unrealized gains and losses on non-trading securities.
- Plus other items

Comprehensive Income

Why are gains and losses on non-trading securities excluded from net income?

Because disclosing them separately

1) reduces the volatility of net income due to fluctuations in fair value,

2) yet informs the financial statement user of the gain or loss that would be incurred if the securities were sold at fair value.

Comprehensive Income

Illustration: Assume Stassi AG has ordinary shares of €3,000,000, retained earnings of €1,500,000, and accumulated other comprehensive loss of €2,000. Illustration 14-28 shows the statement of financial position presentation of the unrealized loss.

STASSI AG Statement of Financial Position (partial)	
Equity	
Share capital—ordinary	€3,000,000
Retained earnings	1,500,000
Accumulated other comprehensive loss	**2,000**
Total equity	€4,498,000

Illustration 14-28
Unrealized loss in equity section

LO 6

PACE AG
Statement of Comprehensive Income
For the Year Ended December 31, 2017

Illustration 14-29
Complete statement of comprehensive income

Net sales	€440,000
Cost of goods sold	260,000
Gross profit	180,000
Operating expenses	110,000
Income from operations	70,000
Other revenues and gains	5,600
Other expenses and losses	9,600
Income before income taxes	66,000
Income tax expense (€66,000 × 30%)	19,800
Income from continuing operations	46,200
Discontinued operations: Gain on disposal of plastics division, net of €15,000 income taxes (€50,000 × 30%)	**35,000**
Loss from operation of plastics division, net of income tax savings €18,000 (€60,000 × 30%)	**42,000**
Net income	**39,200**
Other comprehensive income	
Unrealized gain on non-trading securities, net of income taxes (€15,000 × 30%)	**10,500**
Comprehensive income	**€ 49,700**

> DO IT!

In its proposed 2017 income statement, AIR plc reports income before income taxes £400,000, loss on operation of discontinued flower division £50,000, and loss on disposal of discontinued flower division £90,000. The income tax rate is 30%. Prepare a correct income statement, beginning with "Income before income taxes."

AIR plc
Income Statement (partial)
For the Year Ended December 31, 2017

Income before income taxes	£400,000

LO 6

Quality of Earnings

Learning Objective 7
Understand the concept of quality of earnings.

A company that has a high **quality of earnings** provides full and transparent information that will not confuse or mislead users of the financial statements.

Alternate Accounting Methods

- Variations among companies in the application of IFRS may hamper comparability and reduce quality of earnings.

Quality of Earnings

Pro Forma Income

- **Pro forma income** usually excludes items that the company thinks are unusual or nonrecurring.
- Some companies have abused the flexibility that pro forma numbers allow.

Quality of Earnings

Improper Recognition

Some managers have felt pressure to continually increase earnings and have manipulated the earnings numbers to meet these expectations.

Abuses include:

- Improper recognition of revenue (channel stuffing).
- Improper capitalization of operating expenses (**WorldCom - USA**).
- Failure to report all liabilities (**Enron - USA**).

> DO IT!

Match each of the following terms with the phrase that best describes it.

Comprehensive income	Vertical analysis
Quality of earnings	Pro forma income
Solvency ratio	Discontinued operations

1. Measures the ability of the company to survive over a long period of time. **Solvency ratio**

2. Usually excludes items that a company thinks are unusual or non-recurring. **Pro forma income**

3. Includes all changes in equity during a period except those resulting from investments by shareholders and distributions to shareholders **Comprehensive income**

> DO IT!

Match each of the following terms with the phrase that best describes it.

Comprehensive income	Vertical analysis
Quality of earnings	Pro forma income
Solvency ratio	Discontinued operations

4. Indicates the level of full and transparent information provided to users of the financial statements. **Quality of earnings**

5. The disposal of a significant component of the business. **Discontinued operations**

6. Expresses each item within a financial statement as a percentage of a base amount. **Vertical analysis**

A Look at U.S. GAAP

Learning Objective 8
Compare financial statement analysis and income statement presentation under IFRS and U.S. GAAP.

Key Points

- The tools of financial statement analysis covered in this chapter are universal and therefore no significant differences exist in the analysis methods used.
- The basic objectives of the income statement are the same under both GAAP and IFRS. As indicated in the textbook, a very important objective is to ensure that users of the income statement can evaluate the earning power of the company. Earning power is the normal level of income to be obtained in the future. Thus, both the IASB and the FASB are interested in distinguishing normal levels of income from unusual items in order to better predict a company's future profitability.
- The basic accounting for discontinued operations is the same under GAAP and IFRS.
- The accounting for changes in accounting principles and changes in accounting estimates are the same for both GAAP and IFRS.

A Look at U.S. GAAP

Key Points

- Both IFRS and GAAP follow the same approach in reporting comprehensive income. The statement of comprehensive income can be prepared under the one-statement approach or the two-statement approach. Under the one-statement approach, all components of revenue and expense are reported in a statement of income. This combined statement of comprehensive income first computes net income or loss, which is then followed by components of other comprehensive income or loss items to arrive at comprehensive income.

  Under the two-statement approach, all the components of revenues and expenses are reported in a traditional income statement except for other comprehensive income or loss. In addition, a second statement (the comprehensive income statement) is then prepared, starting with net income and followed by other comprehensive income or loss items to arrive at comprehensive income.

A Look at U.S. GAAP

Key Points

- The issues related to quality of earnings are the same under both GAAP and IFRS. It is hoped that by adopting a more principles-based approach, as found in IFRS, many of the earnings quality issues will disappear.

Looking to the Future

The FASB and the IASB are working on a project that would rework the structure of financial statements. One part of this project addresses the issue of how to classify various items in the income statement. A main goal of this new approach is to provide information that better represents how businesses are run. In addition, the approach draws attention away from one number—net income.

A Look at U.S. GAAP

GAAP Self-Test Questions

The basic tools of financial analysis are the same under both GAAP and IFRS except that:

a) horizontal analysis cannot be done because the format of the statements is sometimes different.

b) analysis is different because vertical analysis cannot be done under GAAP.

c) the current ratio cannot be computed because current liabilities are often reported before current assets in GAAP statements of position.

d) None of the above.

A Look at U.S. GAAP

GAAP Self-Test Questions

Under GAAP:

a) the reporting of discontinued items is different than IFRS.

b) the reporting of other comprehensive income is prohibited.

c) the reporting of changes in accounting principles is different than under IFRS.

d) None of the above.

A Look at U.S. GAAP

GAAP Self-Test Questions

Presentation of comprehensive income must be reported under GAAP in:

a) the statement of stockholders' equity.

b) the income statement before net income.

c) the notes to the financial statements.

d) a statement of comprehensive income.

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