Module 5

Revenues, Receivables, and Operating Expenses

Learning Objectives

LO1 Apply revenue recognition principles and assess results. (p. 5-3)

LO2 Examine and evaluate sales allowances. (p. 5-9)

LO3 Analyze deferred revenue. (p. 5-12)

LO4 Evaluate how foreign currency exchange rates affect revenue. (p. 5-13)

LO5 Analyze accounts receivable and uncollectible amounts. (p. 5-16)

LO6 Evaluate operating expenses and discontinued operations. (p. 5-22)

LO7 Interpret pro forma and non-GAAP disclosures. (p. 5-27)

PFE

Market cap: $210,240 mil
Total assets: $167,460 mil
Revenues: $40,851 mil
Net income: $6,986 mil

Pfizer's business is to discover, develop, manufacture, and market leading prescription medicines. Its operating activities include research and development, manufacturing, advertising, sales, after-sale customer support, and all administrative functions to support operations.

Pfizer reported revenues of $48,851 million in 2015. To recognize revenue, Pfizer makes numerous estimates and choices. Should Pfizer recognize revenue when a customer places an order, when the drug order is shipped, when the customer receives the shipment, or when the customer pays the invoice? What if customers can return unwanted or unused products? What happens if Pfizer discounts prices on large orders or receives payment from its customers in advance of delivery? How do its sales practices affect the timing of revenue recognition? How should Pfizer treat revenue and expenses for transactions made in foreign currencies?

Pfizer's sales are made on credit, and at the end of 2015, Pfizer's receivables for those credit sales totaled $8,176 million, or about 5% of its total assets. By Pfizer granting credit, there is the risk that some customers will fail to pay amounts owed. It is important that Pfizer estimate the portion of accounts receivable that is uncollectible. This results in a more reliable receivables amount on the balance sheet and a better estimate of future cash flows.

This module explains accounting for, and interpretation of, revenues, receivables, and operating expenses, including research and development (R&D). As Pfizer responds to market opportunities, it launches and discontinues certain operations, and we consider the income statement and the balance sheet consequences of such actions. We conclude with a discussion of pro forma and non-GAPP numbers that companies frequently include in Securities and Exchange Commission filings and that analysts commonly cite. [Sources: *Pfizer*, 2015 10-K]

Road Map

LO	Learning Objective | Topics	Page	eLecture	Guided Example	Assignments
5-1	**Apply revenue recognition principles and assess results.** Recognition Rules :: Complications :: Long-Term Contracts :: Reporting	5-3	e5-1	Review 5-1	1, 8, 12, 13, 14, 15, 16, 17, 31, 32, 33, 34, 48, 50, 51, 52, 55, 56
5-2	**Examine and evaluate sales allowances.** Accounting :: Reporting & Disclosure :: Analysis	5-9	e5-2	Review 5-2	1, 17, 25, 39, 48, 55, 56
5-3	**Analyze deferred revenue.** Accounting :: Illustrations :: Disclosure and Interpretation	5-12	e5-3	Review 5-3	10, 23, 24, 25, 52
5-4	**Evaluate how foreign currency exchange rates affect revenue.** Economics :: Cash Flows :: Income :: Forecasting	5-13	e5-4	Review 5-4	5, 6, 22, 27, 35, 38, 46, 57, 58
5-5	**Analyze accounts receivable and uncollectible amounts.** Aging :: Accounting :: Magnitude Analysis :: Quality Analysis	5-16	e5-5	Review 5-5	2, 7, 18, 19, 20, 21, 41, 42, 43, 44, 45, 49, 53, 54
5-6	**Evaluate operating expenses and discontinued operations.** Cost of Sales :: SG&A :: R&D :: Discontinued Operations	5-22	e5-6	Review 5-6	4, 11, 28, 30, 36, 37, 40, 51
5-7	**Interpret pro forma and non-GAAP disclosures.** Regulation G :: SEC Warnings :: Market Assessments	5-27	e5-7	Review 5-7	9, 29, 30, 38, 47, 56

Module Organization

Revenues, Receivables, and Operating Expenses

Organization

Revenues, Receivables, and Operating Expenses

Revenue	Accounts Receivable	Operating Expenses	Pro Forma Reporting
■ Revenue Recognition ■ Revenue Reductions and Allowances ■ Deferred Revenue ■ Foreign Currency Effects	■ Uncollectible Accounts ■ Bad Debt Expense ■ Accounts Receivable Turnover ■ Days Sales Outstanding	■ Deductions from Income ■ Research and Development Expense ■ Discontinued Operations	■ Regulation G ■ SEC Warnings ■ Disclosures and Market Assessments

Revenue

eLectures MBC **LO1** Apply revenue recognition principles and assess results.

Pfizer reported $48,851 million in revenues in 2015, see Exhibit 5.1. The amount Pfizer reports on the income statement is "net" of certain deductions as described in the revenue recognition footnote.

> **Revenue Recognition** We record revenues from product sales when the goods are shipped and title passes to the customer. At the time of sale, we also record estimates for a variety of revenue deductions, such as rebates, chargebacks, sales allowances, and sales returns.

The revenue recognition footnote raises a number of issues related to revenue.

- **Revenue recognition.** Should revenue be recognized when an order is received? When products are shipped? When they are paid for? How should we recognize revenue for long-term contracts spanning more than one year?

Exhibit 5.1 ■ Pfizer's Income Statement

Year Ended December 31 ($ millions)	2015	2014
Revenues	$48,851	$49,605
Costs and expenses:		
Cost of sales	9,648	9,577
Selling, informational, and administrative expenses	14,809	14,097
Research and development expenses	7,690	8,393
Amortization of intangible assets	3,728	4,039
Restructuring charges and certain acquisition-related costs	1,152	250
Other (income)/deductions--net	2,860	1,009
Income from continuing operations before provision for taxes on income	8,965	12,240
Provision for taxes on income	1,990	3,120
Income from continuing operations	6,975	9,119
Discontinued operations:		
Income from discontinued operations--net of tax	17	(6)
Gain/(loss) on disposal of discontinued operations--net of tax	(6)	55
Discontinued operations--net of tax	11	48
Net income before allocation to noncontrolling interests	6,986	9,168
Less: Net income attributable to noncontrolling interests	26	32
Net income attributable to Pfizer Inc.	$ 6,960	$ 9,135

- **Sales and related allowances.** How should we treat the variety of revenue deductions Pfizer

- **Sales and related allowances.** How should we treat the variety of revenue deductions Pfizer references in its revenue footnote?
- **Deferred revenue.** How should we treat advance payments made by customers? Should we only recognize revenue when we receive cash?
- **Foreign currency exchange rates.** How are revenues that are denominated in foreign currencies accounted for? In what way do fluctuations in exchange rates affect Pfizer's income statement?

Revenue (or sales) is the "top line" on the income statement and it includes transactions between the company and its customers during the past year (or, in the case of quarterly reports, during the prior three months). Revenue does not include gains or losses on the sale of assets such as property, plant and equipment (PPE) or investments (or the divestiture of a subsidiary company), nor does it include interest and dividend income on investments or gains or losses on their sale. Those items appear in different sections of the income statement.

Revenue Recognition Rules

The Financial Accounting Standards Board (FASB) has new rules for recognition of revenue that go into effect for financial reporting periods beginning after December 15, 2017, or earlier if companies choose. Although the new rules modify the way in which companies recognize revenue, the core revenue recognition principles remain the same.

- **Revenue is recognized when the good or service is provided to the customer.**
- **It is not necessary to receive cash to recognize revenue.**

Every sale involves a contract (express or implied) between the customer and the company whereby the company agrees to transfer a good or service to the customer and the customer agrees to pay for it. All that is necessary for the company to recognize revenue is for the good to be transferred or the service performed. It is at that point the company's *performance obligation* under the contract is satisfied and revenue can be recognized.

Many sales are *on credit* (also said to be *on account*), meaning the customer has agreed to pay the company in the future. The company still recognizes revenue when the good or service is transferred to the customer, and it records an account receivable that it collects at a later date. The recognition of revenue is unaffected by the delayed receipt of cash if the company has fulfilled its performance obligation. (We discuss accounting for accounts receivable later in this module.)

When is the good or service transferred to the customer and the performance obligation satisfied? GAAP provides examples of evidence; a transfer is likely when the customer has:

- Legal title to the good or has received the service.
- Physical possession of the good.
- Assumed the risks and rewards of owning the good or receiving the service.
- Accepted the good or service and has an obligation to pay the company.

In retail settings, the transfer of the good is straightforward. We take physical possession of groceries or clothes we purchase. In that case, the store has satisfied its obligation, and it recognizes revenue at point of sale.

Revenue recognition can get a bit more complicated, however, if the company sells a bundle of goods for a single price or delivers the goods over a period of time. Microsoft provides a typical example in its 2015 10-K.

> Revenue recognition for multiple-element arrangements requires judgment to determine if multiple elements exist, whether elements can be accounted for as separate units of accounting, and if so, the fair value for each of the elements. Microsoft enters into arrangements that can include various combinations of software, services, and hardware. Where elements are delivered over different periods of time, and when allowed under U.S. GAAP, revenue is allocated to the respective elements based on their relative selling prices at the inception of the arrangement, and revenue is recognized as each element is delivered.

Complications of Revenue Recognition

Complications of Revenue Recognition

The basic revenue recognition principle that applies to a retail store also applies to Microsoft. But Microsoft faces more challenges in administering the principle because, unlike a retail store, Microsoft's sales routinely involve multiple products and services that are sold for one price. The added complication is that Microsoft delivers some products and services at the point of sale and others in the future. In such cases, Microsoft must first separate the sale into distinct goods or services that can each be valued on a stand-alone basis. Then, it recognizes revenue on each *distinct* component. Components are generally viewed as distinct if the:

- Customer can use the good or service on its own.
- Good or service is not highly interrelated with other goods or services sold per the contract.[1]

Once Microsoft separates the sale into distinct product and service components, it apportions the total contract price to each component and then determines the point at which each component is transferred to the customer. Transfers can occur at many points in time, in which case, revenue is recognized over a period of time.

Following are other common types of transactions with complicated revenue recognition. Even though each of these situations is a bit more involved than the sale of groceries, the basic requirement for revenue recognition is the same: recognize revenue when the good or service is transferred to the customer.

- **Nonrefundable up-front fees.** In some industries, companies charge a fee at or near inception of the contract. These fees could be for setup, access, activation, initiation, or membership. In many cases, even though a nonrefundable up-front fee compels the company to undertake an activity at or near contract inception, that activity does not result in the transfer of the goods or service. Instead, the fee is an advance payment for future goods or services and, therefore, would be recognized as revenue when those future goods or services are provided.
- **Bill-and-hold arrangements.** Bill-and-hold arrangements arise when a customer is billed for goods that are ready for delivery, but the company "holds" the goods for shipment later. Revenue is recognized at the later date, when control of the goods transfers to the customer.
- **Consignment sales.** If the seller acts as an *agent* for another company, such as to sell another company's product on its website, it does not recognize the gross amount of the sale as revenue. Instead, it only recognizes its *commission* from the sale. Indicators that the seller is an agent include when the seller:
  - Is not responsible for fulfilling the contract.
  - Does not bear any risk associated with the inventory being sold.
  - Does not have full control over the selling price.
  - Does not bear the risk of loss for uncollectible accounts receivable.
  - Receives commission or another fee from the sale.
- **Licenses.** Software sales can take the form of licensing arrangements of intellectual property (IP). Revenue recognition depends on whether the arrangement confers a right to *use* the IP (arguing for recognition of revenue when the customer can first use the IP) or whether the contract promises to provide *access* to the company's IP (arguing for revenue recognition over a period of time).
- **Franchises.** Franchisors often sell both goods and consulting and other administrative services. The franchisor must separate the sale into separate components for goods and services and recognize the appropriate revenue for each component. The goods component is recognized when the goods are transferred to the buyer. The services component, which might involve the use of a trade name or a license or other service provided over time. In such cases, revenue should be recognized as the services are delivered.
- **Variable consideration.** Portions of the selling price may depend upon future events, such as incentive payments, royalties, and volume discounts. If the good or service has been transferred to

[1] For example, under a construction contract, the contractor simultaneously delivers the construction materials and a finished building. Only the finished building is the subject of the contract—the separate materials would not be considered distinct products under the contract.

the customer and the payment is likely and can be reasonably estimated, the seller should estimate the expected amount to be received and recognize that amount in current revenue.

Performance Obligations Satisfied Over Time

Many companies enter into long-term contracts that obligate them to future performance. For example:

- **Turner Construction** enters into a construction contract to build Yankee stadium.
- **Boeing** enters into a contract with domestic and international airlines and the U.S. military to construct planes.
- **Hewlett-Packard Enterprise** enters into long-term contracts with companies to design IT services, implement systems, and provide cloud storage.

For these types of contracts, companies must determine the point at which their performance obligations have been satisfied so that revenue can be recognized. For a multiple-year contract, waiting to recognize revenue until the good is delivered would be problematic because the expense of constructing the product would be recognized as incurred whereas the revenue recorded only at the end of the contract. Although total revenue, expense, and profit would be accurate over the life of the contract, financial statements issued during the interim would report losses with a substantial profit at the end, making evaluation of the company's financial performance difficult during the interim.

Cost-to-Cost Method An accepted practice for many years has been to recognize revenue over the life of a long-term contract in amounts that track the percentage of completion of the contract. Companies typically use the percentage of projected contract costs that have been incurred to estimate the contract's percentage of completion. This method is called the *cost-to-cost method*. (There are other ways to determine percentage of completion, but cost-to-cost is the most common.) For example, if a company incurred 15% of the total expected cost to create the product in the current period, it would recognize revenues equal to 15% of the contract amount. **Raytheon**, a U.S. conglomerate ranked 126 among the Fortune 500, specializes in aerospace, defense, civil government, and cybersecurity. The company describes its revenue recognition practice as follows.

> We generally use the cost-to-cost measure of progress for our long-term contracts unless we believe another method more clearly measures progress towards completion of the contract. Under the cost-to-cost measure of progress, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the contract.

To illustrate accounting for long-term contracts using the *cost-to-cost* approach, assume Bayer Construction signs a $10 million contract to construct a building. Bayer estimates construction will take two years and will cost $7,500,000. This means the contract yields an expected gross profit of $2,500,000 over two years. The following table summarizes construction costs incurred each year and the revenue Bayer recognizes.

	Construction Costs Incurred	Percentage Complete	Revenue Recognized
Year 1	$4,500,000	$\frac{\$4,500,000}{\$7,500,000} = 60\%$	$10,000,000 × 60% = $6,000,000
Year 2	$3,000,000	$\frac{\$3,000,000}{\$7,500,000} = 40\%$	$10,000,000 × 40% = $4,000,000

This table reveals Bayer would report $6 million in revenue and $1.5 million ($6 million − $4.5 million) in gross profit on the construction project in the first year; it would report $4 million in revenue and $1 million ($4 million − $3 million) in gross profit in the second year.

The following template captures the recognition of revenue and expense over this two-year period

The following template captures the recognition of revenue and expense over this two-year period (M indicates millions).

Journal entry / T-accounts	Transaction	Cash Asset	+ Noncash Assets	= Liabilities	+ Contrib. Capital	+ Earned Capital	Revenues	− Expenses	= Net Income
COGS ... 4.5M Cash ...... 4.5M COGS: 4.5M (debit) Cash: 4.5M (credit)	Year 1: Record $4.5M construction costs	−4.5M Cash				−4.5M Retained Earnings		+4.5M Cost of Sales	−4.5M
AR .... 6M REV......... 6M AR: 6M (debit) REV: 6M (credit)	Year 1: Recognize $6M revenue on partly completed contract		+6M Accounts Receivable			+6M Retained Earnings	+6M Revenue		+6M
COGS . 3M Cash........ 3M COGS: 3M (debit) Cash: 3M (credit)	Year 2: Record $3M construction costs	−3M Cash				−3M Retained Earnings		+3M Cost of Sales	−3M
AR .... 4M Rev .... 4M AR: 4M (debit) Rev: 4M (credit)	Year 2: Recognize $4M revenue for completed contract		+4M Accounts Receivable			+4M Retained Earnings	+4M Revenue		+4M

Cost-to-Cost Reporting Bayer's reported revenues and expenses for years 1 and year 2 follow.

At December 31	Year 1	Year 2
Revenues	$6,000,000	$4,000,000
Expenses	4,500,000	3,000,000
Gross profit	$1,500,000	$1,000,000

Over the two-year period, Bayer recognizes total revenues of $10 million, contract expenses of $7.5 million, and a contract gross profit of $2.5 million.

How Bayer recognizes profit on long-term contracts affects its income statements. In addition, there are often timing differences between when contract costs are paid and when the customer is billed for work performed. These timing differences affect the balance sheet. Raytheon describes the accounting for these timing differences in the following footnote.

> We receive advances, performance-based payments and progress payments from customers that may exceed costs incurred on certain contracts. We classify advance payments and billings in excess of costs incurred as current liabilities. Costs incurred in excess of billings are classified as contracts in process, net.

When Raytheon receives cash in advance of incurring costs under the contract, it records a liability that represents the obligation to deliver the product for which it has been paid. When Raytheon incurs costs to construct the product in excess of the amount it bills the customer, it recognizes that excess as a current asset, contracts in process, as illustrated in the "current assets" section of Raytheon's 2015 balance sheet.

At December 31 ($ millions)	2015	2014
Current assets		
Cash and cash equivalents	$2,328	$3,222
Short-term investments	872	1,497
Contracts in process, net	**5,564**	**4,985**
Inventories	635	414
Prepaid expenses and other current assets	413	161
Total current assets	$9,812	$10,279

The cost-to-cost method of revenue recognition requires an estimate of total costs. This estimate is made at the beginning of the contract and is typically the one used to bid the contract. However, estimates are inherently inaccurate. If the estimate changes during the construction period, the percentage of completion is computed as the total costs incurred to date divided by the *current* estimate of total anticipated costs (costs incurred to date plus total estimated costs to complete).

If total construction costs are underestimated, the percentage of completion is overestimated (the denominator is too low) and revenue and gross profit to date are overstated. The estimation process inherent in this method has the potential for inaccurate or even improper revenue recognition. In addition, estimates of remaining costs to complete projects are difficult for the auditors to verify. This uncertainty adds additional risk to financial statement analysis.

Business Insight ■ Disney's Revenue Recognition

The Walt Disney Company uses a percentage of completion method similar to the cost-to-cost method to determine the amount of production cost to match against film and television revenues. Following is an excerpt from its 10-K.

> Film and television costs include capitalizable production costs, production overhead, interest, development costs, and acquired production costs. . . . Film and television production, participation and residual costs are expensed over the applicable product life cycle based upon the ratio of the current period's revenues to estimated remaining total revenues (Ultimate Revenues) for each production. For film productions, Ultimate Revenues include revenues from all sources that will be earned within ten years from the date of the initial theatrical release. For television series, Ultimate Revenues include revenues that will be earned within ten years from delivery of the first episode, or if still in production, five years from delivery of the most recent episode, if later. For acquired film libraries, remaining revenues include amounts to be earned for up to twenty years from the date of acquisition.

As Disney pays production costs, it records those costs on the balance sheet as inventory. Then, as film and television revenues are recognized, the company matches a portion of production costs (from inventory) against revenues in computing income. Each period, the costs recognized are equal to the proportion of total revenues recognized in the period to the total revenues expected over the life of the film or television show. Thus, estimates of both costs and income depend on the quality of Disney's revenue estimates, which are, likely, imprecise.

Review 5-1

Review 5-1 LO1

Part I Indicate whether revenue should be recognized for each of the following independent situations.

1. A clothing store sells goods to customers who use the store's proprietary (captive) credit card. The store estimates that 2% of the clothes will be returned.
2. A customer purchases a copy machine whose purchase price includes an agreement under which the seller will provide monthly service of the machine for two years at no additional cost.
3. A health club charges an up-front fee to join. Customers are entitled to use the club for one year.
4. A company lists products of other companies on its website and receives a commission equal to a percentage of the selling price when the goods are sold.
5. A franchisor sells franchisees product for sale and provides accounting services on a monthly basis.

Part II A construction company expends $500,000 for work performed under a contract with a total contract price of $3,000,000 and estimated costs of $2,500,000. It sends a bill to the customer for $400,000 under the terms of the contract.

1. How much revenue and gross profit should the company recognize in the income statement?
2. How is the $400,000 billing reported on the balance sheet?

Solution on p. 5-51.

Sales Allowances

LO2 Examine and evaluate sales allowances.

Many companies offer customers a variety of sales allowances, including rights of return, sales discounts for volume purchases, and retailer promotions (point-of-sale price markdowns and other promotions). All of these costs have the effect of reducing the amount of cash companies receive from sales. **Levi Strauss**, for example, discusses allowances in its 2015 10-K.

> The apparel market is characterized by low barriers to entry for both suppliers and marketers, global sourcing through suppliers located throughout the world, trade liberalization, continuing movement of product sourcing to lower cost countries, and the ongoing emergence of new competitors with widely varying strategies and resources. These factors have contributed, and may continue to contribute, to intense pricing pressure and uncertainty throughout the supply chain. This pressure could have the following effects:
>
> - result in reduced gross margins across our product lines, and
> - increase retailer demands for allowances, incentives and other forms of economic support.

Levi Strauss's gross profit margin declined from 50.2% in 2014 to 49.4% in 2015, and it explained that this reduction was "due to higher discounted sales across channels, reflecting a promotional marketplace and our efforts to manage our inventory to more appropriate levels."

Accounting for Sales Allowances

GAAP requires companies to report sales revenue at the net amount expected to be received in cash. This means companies are to deduct from gross sales the expected sales returns and other allowances. For example, Levi Strauss reports the following in its revenue recognition footnote.

> We recognize allowances for estimated returns in the period in which the related sale is recorded. We recognize allowances for estimated discounts, retailer promotions and other similar incentives at the later of the period in which the related sale is recorded or the period in which the sales incentive is offered to the customer.

To illustrate, when Levi Strauss recognizes revenue, it increases both sales and accounts receivable, and it also concurrently reduces the gross sales amount by estimated returns and allowances. Assume Levi

Strauss sells jeans costing $80 to a customer for $130 on account. Levi Strauss recognizes the revenue

Strauss sells jeans costing $80 to a customer for $130 on account. Levi Strauss recognizes the revenue and cost of goods sold (COGS). Because Levi Strauss has offered its customers a right of return, and because prior experience leads the company to expect that returns will occur, Levi Strauss must also set up a reserve for estimated returns. Let's assume Levi Strauss expects returns to amount to 3% of sales. In the same period in which Levi Strauss records the revenue, it also records the estimated returns as follows.

	Balance Sheet					Income Statement		
Transaction	Cash Asset +	Noncash Assets =	Liabilities +	Contrib. Capital +	Earned Capital	Revenues −	Expenses =	Net Income
Establish allowance for sales returns (3% × $130)		−3.90 Allowance for Sales Returns			−3.90 Retained Earnings	−3.90 Sales Returns and Allowances		−3.90
Adjust COGS ([$80/$130] × $3.90)		2.40 Inventory Adj. for Estimated Returns			2.40 Retained Earnings		−2.40 COGS Adj. for Estimated Returns	2.40

In the first entry, Levi Strauss reduces sales by $3.90 to reflect expected merchandise returns with a corresponding reduction of accounts receivable (similar to the allowance for uncollectible accounts). The second entry reduces COGS by the COGS percentage ($80/$130) and increases inventory for the expected returns. Levi Strauss income statement (through gross profit) follows for the illustration above.

Sales, net ($130 − $3.90)	$126.10
Cost of goods sold ($80 − $2.40)	77.60
Gross profit	$48.50

Levi Strauss will also report accounts receivable of $126.10, and the estimated product returns of $2.40 will be reported in its inventory account.

Reporting Sales Allowances

Levi Strauss provides a reconciliation of the beginning and ending balances for the past three years for its allowance for sales returns and for its sales discounts and incentives in its 2015 10-K. This is a typical disclosure for companies with sales returns, discounts, and other sales allowances.

Sales Returns ($ thousands)	Balance at Beginning of Period	Additions Charged to Net Sales	Deductions	Balance at End of Period
November 29, 2015	$32,191	$152,471	$150,641	$34,021
November 30, 2014	$32,675	$138,577	$139,061	$32,191
November 24, 2013	$40,575	$137,613	$145,513	$32,675

Sales Discounts and Incentives ($ thousands)	Balance at Beginning of Period	Additions Charged to Net Sales	Deductions	Balance at End of Period
November 29, 2015	$98,416	$306,497	$318,639	$86,274
November 30, 2014	$110,572	$322,164	$334,320	$98,416
November 24, 2013	$102,361	$331,937	$323,726	$110,572

Analysis of Sales Allowances

Analysis of Sales Allowances

Two metrics warrant further investigation as we analyze this disclosure.

1. **"Additions charged to net sales" as compared with gross sales for both sales returns and sales discounts and incentives.** This ratio reveals any effects of the pricing pressure on net sales and we would expect the percentage of sales allowances to gross sales to increase (thus reducing net sales) as pricing pressure increases.
2. **Adequacy of the allowance account.** This analysis compares the dollar amount Levi Strauss estimates for future sales returns with the amount actually realized during the year.

For the past three years, Levi Strauss's allowances as a percentage of gross sales have ranged from 8.8% to 9.3% as follows.

Levi's Sales Allowances Analysis ($ thousands)	2015	2014	2013
Net sales	$4,494,493	$4,753,992	$4,681,691
Allowances:			
Sales returns	152,471	138,577	137,613
Sales discounts	306,497	322,164	331,937
Gross sales	$4,953,461	$5,214,733	$5,151,241
Allowances/Gross sales	9.3%	8.8%	9.1%

The increased pricing pressure Levi Strauss discusses in its analysis of sales above, is evident in the increase in allowances as a percentage of gross sales from 8.8% in 2014 to 9.3% in 2015, which reduced net sales by 50 basis points (½ percentage point). For a company with a net profit margin of 4.7% in 2015, a 50-basis-point reduction in net sales is substantial, and analysts would focus on the allowance percentage in future years to look for further pricing pressure.

To assess the adequacy of the allowance account, we compare annual "deductions" from the allowance account (realized sales returns) with the "additions charged to net sales." The *additions* column is the amount by which the allowance account increased during the year to reflect the company's estimate of future sales returns. Levi Strauss subtracted this amount from gross sales to arrive at net sales reported on the income statement. The deductions column is the actual sales returns from customers along with the cost of realized discounts and other incentives that it gave to its customers to promote sales.

To analyze the adequacy of the allowance account, we look for divergence between the amount charged to sales and the cost actually incurred. If the amount charged to sales is greater than the cost incurred, the company has reduced sales more than is needed and has reduced its profit accordingly. If the amount charged to sales is less than the cost incurred, the company has under-reserved the allowance account, thus increasing profit. Over the three-year period, we see that the two accounts are approximately equal. So, there is not much concern for the adequacy of Levi Strauss's allowance account in 2015.

Review 5-2 LO2

Nordstrom Inc. reports the following on its 2015 income statement.

$ millions	Fiscal 2015	Fiscal 2014	Fiscal 2013
Net sales	$14,095	$13,110	$12,166
Cost of sales	9,168	8,406	7,737

The company made the following footnote disclosure.

> We recognize revenue net of estimated returns and excluding sales taxes. Revenue from sales to customers shipped directly from our stores, website and catalog, which includes shipping revenue when applicable, is recognized upon estimated receipt by the customer. We estimate customer merchandise returns based on historical return patterns and reduce sales and cost of sales accordingly. Activity in the allowance for sales returns, net, for the past three fiscal years is as follows:

continued

$ millions	Fiscal 2015	Fiscal 2014	Fiscal 2013
Allowance at beginning of year	$ 160	$ 128	$ 116
Additions	2,720	2,129	1,880
Returns, net	(2,710)	(2,097)	(1,868)
Allowance at end of year	$ 170	$ 160	$ 128

Required

1. The reconciliation includes "Additions" of $2,720 million. What does this item refer to?
2. The reconciliation includes "Returns, net" of $2,710 million. What does this item refer to?
3. Compute the following two metrics for the past three years and comment on the results.
   a. Sales returns/Gross sales.
   b. Adequacy of the allowance account.

Solution on p. 5-51.

Unearned (Deferred) Revenue

LO3 Analyze deferred revenue.

In some industries, it is common to receive cash before recording revenue. Customers might pay in advance for special orders, make deposits for future services, or buy concert tickets, subscriptions, or gift cards. In those cases, companies must record unearned revenues, and only record revenue when those products and services are provided. Specifically, deposits or advance payments are not recorded as revenue until the company performs the services owed or delivers the goods. Until then, the company's balance sheet shows the advance payment as a liability (called unearned revenue or deferred revenue) because the company is obligated to deliver those products and services.

Unearned revenue is particularly common among retailers that:

- Receive advance payments from customers for products that are not yet delivered.
- Offer gift cards.
- Sell extended-protection plan contracts.

Lowe's Companies, the home improvement company, provides several examples of transactions that require revenue to be deferred, as illustrated in the following excerpts from the revenue recognition footnote in its 2015 10-K.

- Revenues from product installation services are recognized when the installation is completed. Deferred revenues associated with amounts received for which customers have not yet taken possession of merchandise or for which installation has not yet been completed were $619 million and $545 million at January 29, 2016, and January 30, 2015, respectively.
- Revenues from stored-value cards, which include gift cards and returned merchandise credits, are deferred and recognized when the cards are redeemed. The liability associated with outstanding stored-value cards was $459 million and $434 million at January 29, 2016, and January 30, 2015, respectively, and these amounts are included in deferred revenue on the consolidated balance sheets. The Company recognizes income from unredeemed stored-value cards at the point at which redemption becomes remote.
- The Company sells separately-priced extended protection plan contracts under a Lowe's-branded program. The Company recognizes revenue from extended protection plan sales on a straight-line basis over the respective contract term.

As we evaluate profitability for companies that report substantial amounts of deferred revenue, we must be aware of changes in deferred revenue liabilities on the balance sheet. Should deferred revenue liabilities decrease, we infer the company's *current* reported revenue was collected from customers

in a prior accounting period and there have been fewer new prepayments for which revenue will be in a *prior* accounting period and there have been fewer new prepayments for which revenue will be recognized in future periods. Such a trend could predict future declines in revenue and profit.

Lowe's provides a schedule that allows us to track the deferred revenue liability related to its extended protection plan contracts.

$ millions	2015	2014	2013
Deferred revenue—extended protection plans, beginning of year.	$730	$730	$715
Additions to deferred revenue.	350	318	294
Deferred revenue recognized	(351)	(318)	(279)
Deferred revenue—extended protection plans, end of year.	$729	$730	$730

In 2015, Lowe's received cash from customers of $350 million for new extended protection plan contracts and recognized revenue of $351 million that related to cash received in prior years. As a result, the balance in the deferred revenue liability account remained at the level Lowe's reported in the prior year (as well as in 2014). From this reconciliation, we would have no reason to predict future revenue declines.

Review 5-3 LO3

AT&T Corporation grants credit to most of its customers. However, a fraction of customers prepay for their wireless services. In addition, the company sells prepaid phone cards and gift certificates.

During 2015, these prepaid product lines generated revenue of $4,662 million, and AT&T reported the following deferred revenue liability on its December 31, 2015, balance sheet.

$ millions	2015	2014
Advanced billings and customer deposits	$4,682	$4,105

Required

1. What economic rationale can we provide to explain why AT&T offers prepaid services?
2. Use the balance sheet information and the total revenue for 2015 to determine the total amount of cash collected from prepaid customers during 2015.
3. If AT&T gift cards have no expiration date, when, if ever, would the company record revenue on the cards? Explain.

Solution on p. 5-52.

Foreign Currency Effects on Revenue

LO4 Evaluate how foreign currency exchange rates affect revenue.

Exhibit 5.1 shows **Pfizer**'s income statement that reports a decrease in revenues from $49,605 million in 2014 to $48,851 million in 2015. Pfizer describes this decrease as follows.

> Revenues in 2015 were $48.9 billion, a decrease of 2% compared to 2014. This reflects an operational increase of $3.0 billion, or 6%, which was more than offset by the unfavorable impact of foreign exchange of $3.8 billion, or 8%.

The reduction of Pfizer's revenues was not the only foreign exchange impact. The strengthening US dollar ($US) also reduced Pfizer's COGS and other operating expenses. Because Pfizer is profitable (revenues > expenses), the foreign currency fluctuations had the net effect of reducing Pfizer's net income for 2015.

Companies routinely conduct business in foreign currencies. Although Pfizer's U.S.-based companies may write purchase and sales contracts that are denominated in foreign currencies, Pfizer's foreign subsidiaries likely transact business almost entirely in foreign currencies. These foreign subsidiaries not only conduct business in foreign currencies, they also maintain their accounting records in currencies other than the $US. Before the financial statements of those subsidiaries can be consolidated with the U.S. parent company, they must first be translated into $US.

As the $US strengthens vis-à-vis other world currencies in which Pfizer conducts its business, each $US buys more of the foreign currency. Conversely, each foreign currency buys less $US. When Pfizer translates a subsidiary's foreign-currency denominated income statement into $US, the income statement shrinks: reported revenues, expenses, and profit are all smaller than before the dollar strengthened. In the consolidation process, Pfizer must also translate the foreign subsidiary's balance sheet and, with a strengthening $US, the foreign currency-denominated balance sheet shrinks as well, reporting lower assets, liabilities, and equity. We examine the income statement effects here, and we defer our discussion of the balance sheet effects to a later module, when we discuss the consolidation process.

Foreign Currency and Cash Flows

Following are three examples of the ways in which foreign currency gains and losses may affect *cash flow*.

1. **When the $US company transacts business denominated in foreign currencies.** A U.S. company might denominate a sales contract in Euros, for example. If the $US strengthens between the date of the sale and the ultimate collection of the Euro-denominated account receivable, the U.S. company suffers a foreign currency transaction loss. Conversely, if the U.S. company purchases goods, the foreign currency denominated account payable would shrink and less $US would be required to settle the obligation, resulting in a foreign currency transaction gain.
2. **When the U.S. parent company borrows money that is denominated in a foreign currency.** If the U.S. parent company borrows in foreign currencies and the $US strengthens, it will take less in $US to repay the foreign currency-denominated liability. If the company planned to repay the loan with $US, the company will realize a gain as it repays the foreign currency-denominated loan.
3. **When the foreign subsidiary's cash is repatriated to the United States.** Most foreign subsidiaries maintain cash in foreign bank accounts (local to the subsidiary) for use in ongoing operations. If the U.S. parent repatriates that cash, however, say, by a cash dividend from the subsidiary to the U.S. parent company, a foreign currency transaction loss can arise if the dollar strengthens before the foreign currency is converted into $US to pay the dividend.

The difference between these three situations and the translation adjustment that arises solely from the consolidation of Pfizer's foreign subsidiaries' profits is that these three transactions describe *realized* losses, whereas the translation losses that Pfizer reports above are *unrealized*.

Regarding contracts denominated in foreign currencies (#1 above) and borrowing in foreign currencies (#2 above), companies frequently hedge their exposures to these potential realized losses by using financial derivative securities. These derivative securities act like an insurance policy to offset the income statement effects of realized gains and losses by transferring some of the risk for foreign currency fluctuations to other parties who are willing to accept that risk for a fee. An effective hedging process reduces the effects of realized gains and losses and greatly reduces the impact on net income. We discuss hedging in more detail in a later module.

Regarding the repatriation of foreign earnings (#3 above), companies usually disclose in the tax footnote the amount of cash they deem as "permanently" reinvested in foreign subsidiaries and which is not subject to tax. Pfizer, for example, discloses, "As of December 31, 2015, we have not made a U.S. tax provision on approximately $80.0 billion of unremitted earnings of our international subsidiaries." These foreign earnings are not likely to be repatriated, but, instead, are likely retained abroad for use in the foreign subsidiary's operations.

Accordingly, the *realized* foreign currency translation effects are likely small, and the foreign currency translation losses (the reduction in revenues, expenses, and profit Pfizer discusses above) are, therefore, likely to be primarily *unrealized* noncash losses.

Foreign Currency and Income

So, how should we treat the foreign currency translation effects on the income statement given that the currency fluctuations reduced Pfizer's revenues, expenses, and profit? One approach would be to back out the revenue and expense effects to yield income statements that are not affected by these foreign currency fluctuations. Pfizer identifies numerous effects on its 2015 income statement in the management discussion and analysis (MD&A) section of its 10-K, including the following.

1. Revenues were reduced by $3.8 billion.
2. COGS was reduced by 10% (approximately $965 million).
3. Foreign currency loss ($806 million) was related to Venezuelan operations.

Backing out these foreign currency translation effects on the 2015 income statement (with similar adjustments to prior year financial statements) would allow us to better isolate Pfizer's operating profit without the distortion of foreign currency exchange rate effects.

Foreign Currency and Future Results

Companies frequently provide guidance for analysts to forecast future income statements. Pfizer's 2015 10-K includes the following guidance to analysts for 2016.

Our Financial Guidance for 2016

The following table provides our financial guidance for full-year 2016:

Reported revenues	$49.0 to $51.0 billion
Adjusted cost of sales as a percentage of reported revenues	21.0% to 22.0%
Adjusted selling, informational and administrative expenses	$13.2 to $14.2 billion
Adjusted research and development expenses	$7.3 to $7.8 billion
Adjusted other (income)/deductions	Approximately ($300 million) of income
Effective tax rate on adjusted income	Approximately 24.0%
Reported diluted Earnings per Share (EPS)	$1.54 to $1.67
Adjusted diluted EPS	$2.20 to $2.30

Pfizer also includes a footnote to its guidance relating to foreign currency effects.

Guidance for 2016 reported revenues also reflects the anticipated negative impact of $2.3 billion as a result of unfavorable changes in foreign exchange rates relative to the U.S. dollar compared to foreign exchange rates from 2015, including $0.8 billion due to the estimated significant negative currency impact related to Venezuela. The anticipated negative impact on reported and adjusted diluted EPS resulting from unfavorable changes in foreign exchange rates compared to foreign exchange rates from 2015 is approximately $0.16, including $0.07 due to the estimated significant negative currency impact related to Venezuela.

Because foreign currency effects are largely noncash items, they should not impact our valuation of the company. Our forecasts of Pfizer's income statement, then, might exclude these effects to better isolate the forecasting of operating cash flow.

Review 5-4 LO4

GuidedExamples MBC

On January 16, 2015, **AT&T** closed a $US2.5 billion acquisition of Mexican wireless provider **Iusacell** from **Grupo Salinas**. AT&T acquired all of Iusacell's wireless properties, including licenses, network assets, retail stores, and 9.2 million subscribers. In its 2015 annual report, AT&T disclosed these facts ($ millions).

- Following our 2015 acquisitions of wireless businesses in Mexico, we have additional foreign operations that are exposed to fluctuations in the exchange rates used to convert operations, assets and liabilities into U.S. dollars. Since the dates of acquisition, when compared to the U.S. dollar, the . . . Mexican peso exchange rate has depreciated 13.1%.
- Our 2015 international operating revenues were $4,102, **with $1,952 attributable to wireless revenues in Mexico**.
- We are exposed to foreign currency exchange risk through our foreign affiliates and equity investments in foreign companies. We do not hedge foreign currency translation risk in the net assets and income we report from these sources. However, we do hedge a portion of the exchange risk involved in anticipation of highly probable foreign currency-denominated transactions and cash flow streams, such as those related to issuing foreign-denominated debt, receiving dividends from foreign investments, and other receipts and disbursements.

continued

The $US to Mexican peso exchange rates during 2015 were as follows.

	1 $US = pesos		1 $US = pesos
31-Jan	14.975945	31-Jul	18.216009
28-Feb	14.948455	31-Aug	16.734763
31-Mar	15.241323	30-Sep	16.901119
30-Apr	15.388116	31-Oct	16.500190
31-May	15.378000	30-Nov	16.601480
30-Jun	15.695152	31-Dec	17.249549

Required

1. Confirm AT&T's claim concerning the peso devaluation.
2. Using the exchange rates provided, determine what AT&T's revenue attributable to wireless operations in Mexico would have been had the peso not been devalued (i.e., had it remained at the January 31 level of 14.975945). For this question, assume the Mexican operating revenues were realized evenly from February 1 onward.
3. Did the peso devaluation increase or decrease AT&T's net income for 2015 when measured in $US? Explain.
4. Explain why AT&T does not hedge foreign currency translation risk in the net assets and income of its foreign subsidiaries.
5. AT&T states that it does hedge foreign currency-denominated transactions such as debt issuances and dividend payments. Why is that policy different than the "no hedge" policy for the net assets and income of its foreign subsidiaries?

Solution on p. 5-52.

Accounts Receivable

Pfizer reports $8,176 million of trade accounts receivable in the current asset section of its balance sheet.

eLectures MBC **LO5** Analyze accounts receivable and uncollectible amounts.

As of December 31 ($ millions)	2015	2014
Cash and cash equivalents	$ 3,641	$ 3,343
Short-term investments	19,649	32,779
Trade accounts receivable, less allowance for doubtful accounts: 2015—$384; 2014—$412	**8,176**	**8,401**

Selling goods on account carries the risk that some customers encounter financial difficulty and are unable to pay the amount due. GAAP recognizes this possibility and requires companies to estimate the dollar amount of receivables that are likely to be uncollectible and to report only the net collectible amount on the balance sheet. Pfizer reports net receivables of $8,176 million and estimates that $384 million of its total accounts receivable are uncollectible. From this, we can determine that the gross accounts receivable (the total amount customers owe to Pfizer) is $8,560 million ($8,176 million + $384 million). Pfizer estimates, therefore, that 4.5% ($384 million/$8,560 million) of the total amount of receivables owed, is likely uncollectible.

Aging Analysis of Receivables

Companies frequently employ an **aging analysis** of their accounts receivable to estimate the uncollectible amounts. An aging analysis groups accounts receivable by number of days past due (days the scheduled due date for payment). A common grouping method uses 30-day or 60-day intervals, as shown in the following.

Age of Accounts	Receivable Balance	Estimated Percent Uncollectible	Estimated Uncollectible Accounts
Current	$ 50,000	2%	$1,000
1–60 days past due	30,000	3%	900
61–90 days past due	15,000	4%	600
Over 90 days past due	5,000	8%	400
Total	$100,000		$2,900

In this example, we assume the seller's credit terms are a typical "2/10, net 30" (customers receive a 2% discount from the amount owed if they make payment within 10 days of the invoice date; or the full amount owed is due 30 days from the invoice date). Accounts listed as 1–60 days past due are those 1 to 60 days past their due date. This would include an account that is 45 days outstanding for a net 30-day invoice. Given this aging schedule, the company draws upon its previous experience of uncollectible accounts of that age. The company has experience that if an account is 1–60 days past due, about 3% of the balance is not collected. Based on that past experience, the company estimates a potential loss of $900 for the $30,000 in the 1–60 days past due group. As expected, the percent uncollectible increases with the age of the account.

The company estimates that $2,900, or 2.9% of its $100,000 of gross accounts receivable, is likely uncollectible. The net amount, $97,100, represents the company's best estimate of what it expects to ultimately collect from its customers.

Accounting for Accounts Receivable

To account for uncollectible amounts, companies use an allowance account similar to the ones discussed above for sales returns and other allowances. The *allowance for uncollectible accounts* (also called the allowance for doubtful accounts) reduces the gross amount of receivables that are reported on the balance sheet.

To illustrate, assume the company sells goods on account for $100,000 and, at the end of the accounting period, performs an aging analysis and establishes the allowance for uncollectible accounts in the amount of $2,900. Our financial statement effects for the sale and the estimate of uncollectible accounts receivable are as follows.

AR 100,000
Rev 100,000
AR: 100,000 |
Rev: | 100,000

BDE 2,900
AU 2,900
BDE: 2,900 |
AU: | 2,900

	Balance Sheet									Income Statement				
Transaction	Cash Asset	+	Noncash Assets	=	Liabilities	+	Contrib. Capital	+	Earned Capital	Revenues	−	Expenses	=	Net Income
Sale on account			100,000 Accounts Receivable	=					100,000 Retained Earnings	100,000 Sales	−		=	100,000
Establish allowance for uncollectible accounts and record bad debts expense			−2,900 Allowance for Uncollectible Accounts	=					−2,900 Retained Earnings		−	−2,900 Bad Debts Expense	=	−2,900

The allowance for uncollectible accounts is subtracted from the gross accounts receivable, and the net amount collectible is reported on the balance sheet.

Accounts receivable (gross amount owed)	$100,000
Less: Allowance for uncollectible accounts	(2,900)
Accounts receivable, net (reported on balance sheet)	$ 97,100

Companies typically report the allowance for uncollectible accounts along with accounts receivable

Companies typically report the allowance for uncollectible accounts along with accounts receivable as follows.

Accounts receivable, less allowance for uncollectible accounts of $2,900.	$97,100

By setting up the allowance, the company has established a reserve, or a cushion, that it can use to absorb credit losses as they occur. To see how this works, assume a customer who owes $500 files for bankruptcy. If the company determines the receivable is now uncollectible, it must write off the receivable. This is absorbed by the allowance for uncollectible accounts as follows.

	Balance Sheet									Income Statement				
Transaction	Cash Asset	+	Noncash Assets	=	Liabil-ities	+	Contrib. Capital	+	Earned Capital	Rev-enues	−	Expen-ses	=	Net Income
Write off $500 of un-collectible accounts receivable			500 Allowance for Uncollectible Accounts −500 Accounts Receivable	=							−		=	

AU 500
AR. 500

AU
500 |

AR
| 500

The write off of the uncollectible account receivable results in the following balances at the end of the period.

Accounts receivable (gross amount owed)	$99,500	($100,000 − $500)
Less: Allowance for uncollectible accounts	(2,400)	($2,900 − $500)
Accounts receivable, net (reported on balance sheet)	$97,100	

We see that the net amount of accounts receivable the company will report at the end of the period is the same $97,100 balance it reported *before* the write-off of the uncollectible account (i.e., because the write-off was completely absorbed by the allowance account established in the previous period.) This leaves the reported amount of net accounts receivable on the balance sheet unchanged. The write-off used up some of the reserve as the allowance decreased from $2,900 to $2,400. Future write-offs will reduce the allowance further. Each period, the company replenishes the allowance account and then draws it down for write-offs.

Analysis of Accounts Receivable–Magnitude

An important analysis tool for accounts receivable is to determine the magnitude and quality of the receivables. The relative magnitude of accounts receivable is usually measured with respect to sales volume using any or all of the following ratios. (Average accounts receivable is a simple average: (Current year balance + Prior year balance)/2.

- **Accounts receivable turnover**

$$\text{Accounts receivable turnover ratio} = \frac{\text{Sales}}{\text{Average accounts receivable}}$$

- **Accounts receivable as a percentage of sales**

$$\text{Accounts receivable as a percentage of sales} = \frac{\text{Average accounts receivable}}{\text{Sales}}$$

- **Days sales outstanding (DSO)**

$$\text{Days sales outstanding} = \frac{365 \times \text{Average accounts receivable}}{\text{Sales}}$$

DSO is, arguably, the most intuitive of the three ratios, and it reveals the number of days, on average, that accounts receivable are outstanding before they are paid. The DSO statistic can be:

- Compared with the company's established credit terms to investigate if the company's customers are conforming to those credit terms.
- Computed over several years for the same company to investigate trends.
- Compared with peer companies.

A lower accounts receivable turnover ratio, a higher percentage of accounts receivable to sales, and a lengthening of the DSO all provide a signal that accounts receivable have grown more quickly than sales. Generally, such a trend is not favorable for two possible reasons.

- **The company is becoming more lenient in granting credit to its customers.** Perhaps this is in response to greater competition, or perhaps the company is finding it difficult to maintain sales volume and is reaching for additional volume by selling to new customers with weaker credit scores.
- **Credit quality is deteriorating.** If existing customers are not paying on time, the level of accounts receivable relative to the level of sales will increase. This will be highlighted in the DSO statistic, which will increase as the percentage of receivables to sales grows. (A third explanation is that the mix of products sold has changed toward markets with longer payment terms.)

What further steps can analysts take to assess an adverse trend in DSO? A first step is to review the MD&A section of the 10-K to learn management's interpretation of the adverse trend. A second step is to review the financial press, analyst reports, and other external reports about the company to glean additional insight.

The ratios we highlight above are often reported in commercial databases that are regularly used by analysts. For example, **Standard & Poors' Capital IQ** reports the following data for **Pfizer**.

Pfizer Inc. (NYSE:PFE) Financial Ratios

Ratios for Fiscal Period Ending	2015	2014	2013	2012	2011
Asset turnover					
Total asset turnover	0.3	0.3	0.3	0.3	0.3
Fixed asset turnover	3.8	4.1	4.0	3.8	3.5
Accounts receivable turnover	5.9	5.6	5.2	4.6	4.6
Inventory turnover	1.4	1.5	1.5	1.5	1.6
Short-term liquidity					
Current ratio	1.5	2.6	2.4	2.2	2.1
Quick ratio	1.2	2.2	1.9	1.6	1.5
Cash from operations to current liabilities	0.5	0.8	0.8	0.6	0.7
Average days sales outstanding	61.9	65.3	70.9	79.5	79.1
Average days inventory outstanding	254.9	239.0	241.5	244.6	232.2
Average days payable outstanding	110.5	137.9	120.3	134.8	139.5
Average cash conversion cycle	206.4	166.5	192.1	189.2	171.7

We have highlighted the accounts receivable turnover ratio and the days sales outstanding (DSO) ratio. To compute these ratios for 2015, we use Pfizer's 2015 sales of $48,851 million and its accounts receivable, net of $8,176 million and $8,401 million for 2015 and 2014, respectively:

$$\text{2015 accounts receivable turnover} = \frac{\$48,851}{(\$8,176 + \$8,401)/2} = 5.89 \text{ times}$$

$$\text{Days sales outstanding} = \frac{365 \times (\$8,176 + \$8,401)/2}{\$48,851} = 61.9 \text{ days}$$

A review of the Capital IQ data reveals that Pfizer's accounts receivable turnover ratio has increased over the past five years—a good sign. The downward trend for DSO is another way to measure the positive trend. The metric has declined by 17 days from 79.1 days in 2011 to 61.9 days in 2015.

Collecting receivables more quickly increases operating cash flow. At the current sales volume of $48,851 million, the average sales per day is $133.8 million ($48,851 million/365), and collecting receivables 17 days more quickly generates an additional $2,275 million of cash ($133.8 million/day × 17 days).

Analysis of Accounts Receivable—Quality

To analyze the quality of accounts receivable, we focus on the allowance for uncollectible accounts. Companies are required to report on their balance sheet, the amount of accounts receivable they expect to collect (the gross amount of accounts receivable less the estimated uncollectible accounts). Levi Strauss reports its accounts receivable as follows in its 2015 balance sheet.

$ thousands	Nov. 29, 2015	Nov. 30, 2014
Current assets		
Cash and cash equivalents	$318,571	$298,255
Trade receivables, net of allowance for doubtful accounts of $11,025 and $12,704.	**498,196**	**481,981**

The company also includes Schedule II in its 10-K, where it reports a "roll forward" of the allowance for uncollectible accounts that shows movements in the account.

Allowance for Doubtful Accounts ($ thousands)	Balance at Beginning of Period		Additions Charged to Expenses		Deductions		Balance at End of Period
November 29, 2015	$12,704	+	$1,875	−	$3,554	=	$11,025
November 30, 2014	$18,264	+	$ 662	−	$6,222	=	$12,704
November 24, 2013	$20,738	+	$1,158	−	$3,632	=	$18,264

Reconciling the allowance account from the beginning to the end of the year yields useful insights. The allowance account began 2015 with a balance of $12,704 thousand. Levi Strauss increased the allowance by $1,875 thousand and recognized bad debt expense (included in selling, general and administrative expense) equal to that amount. The allowance was reduced by $3,554 thousand to absorb the write-off of uncollectible accounts receivable during 2015 and ended the year with a balance of $11,025 thousand. The decrease in the account during the year means that Levi Strauss wrote off more than it added to its allowance account. This has been the trend for the past three years—Levi Strauss has written off $13,408 thousand ($3,554 + $6,222 + $3,632) while only increasing the allowance account by $3,695 thousand ($1,875 + $662 + $1,158).

Because Levi Strauss has not replenished the allowance account for the amount of the write-offs for three years, the balance of the allowance account has declined from $20,738 thousand at the beginning of 2013 to $11,025 thousand at the end of 2015. This would not be an issue if gross receivables had declined proportionately, but this is not the case. Instead, the allowance account as a percentage of gross accounts receivable has declined.

$ thousands	2015	2014
Accounts receivable (net)	$498,196	$481,981
Allowance account	11,025	12,704
Accounts receivable (gross)	$509,221	$494,685
Allowance account / Accounts receivable (gross)	2.2%	2.6%

There are two possible interpretations for this trend.

1. **Credit quality has improved.** If Levi Strauss feels that the collectability of its remaining receivables has improved, it can feel confident in allowing the allowance for uncollectible accounts to decline. An improvement in credit quality might be plausible given that the recession ended during this period and customers are in better financial condition.
2. **Levi Strauss is underestimating the allowance account.** This is the more troubling of the two possibilities. Remember, Levi Strauss reports bad debt expense in its income statement when it *increases* its allowance account. Write-offs have no effect on profit; only the estimation of the loss affects income. So, Levi Strauss might be attempting to increase its profitability by not *adding* to the allowance account, and, thus, avoiding more bad debt expense.

How can we determine which of these two possibilities is more likely? We might compare Levi Strauss with its peer companies to determine if its ratio of allowance account to gross accounts receivable is higher or lower. If Levi Strauss' ratio exceeds industry or peer benchmarks, then the decrease might be reasonable. If Levi Strauss' ratio is lower than industry or peer benchmarks, Levi Strauss may be attempting to inflate its earnings by avoiding the additional drag on profits from bad debt expense (maybe to meet analyst forecasts or to avoid a default in loan covenants). All we know for certain is the allowance account has declined, both in absolute dollar amount and as a percentage of gross accounts receivable. It is difficult to know the reasons unless the company discusses those reasons in its MD&A section of the 10-K or in conference calls with analysts.

Managerial Decision ■ **You Are the Receivables Manager**

You are analyzing your receivables for the period and you are concerned that the average collection period is lengthening. What specific actions can you take to reduce the average collection period? [Answer, p. 5-32]

Review 5-5 LO5

Guided Examples MBC

AT&T Corporation reported the following information on its December 31, 2015, balance sheet.

$ millions	2015	2014
Accounts receivable—net of allowances for doubtful accounts of $704 and $454	$16,532	$14,527

Footnotes to the financial statements reported, "Credit risks are assessed based on historical write-offs, net of recoveries, as well as an analysis of the aged accounts receivable balances with allowances generally increasing as the receivable ages."

Assume the company analyzed and aged its accounts receivable at December 31, 2015, and developed the following table.

$ millions	Accounts Receivable	% Uncollectible
Current	$12,650	0.5%
1–30 days past due	2,785	5%
31–60 days past due	854	15%
61–90 days past due	589	25%
91–120 days past due	207	55%
Over 120 days past due	151	75%

continued

AT&T's allowance for doubtful accounts had a balance of $454 million at January 1, 2015. Assume that during the year, the company wrote off accounts receivable totaling $1,166 million. This exceeded the balance in the account at the start of the year. In its 2015 Form 10-K filing, the company explained that the write-offs were higher than expected due to acquisitions of DIRECTV and wireless properties in Mexico in 2015.

Required

1. As of December 31, 2015, what amount does AT&T expect to collect from its customers?
2. What is the total amount AT&T customers owe the company at December 31, 2015?
3. Use the aging schedule to determine the required balance in the allowance account at December 31, 2015.
4. What amount of bad debt expense will AT&T report on its 2015 income statement?
5. In your opinion, are AT&T's accounts receivable of higher or lower quality in 2015 as compared with 2014?

Solution on p. 5-53.

Expenses and Losses

Pfizer's income statement in Exhibit 5.1 reports a number of expense and loss items.

eLectures MBC **LO6** Evaluate operating expenses and discontinued operations.

Deductions from Income

The following expense and loss items reported by **Pfizer** are typical of many companies.

- **Cost of sales.** This is the cost Pfizer incurred to make or buy the products it sold during the year. As goods are manufactured or purchased, the cost is recognized as inventory on the balance sheet. The inventory remains there until the product is sold, at which time the cost is transferred from the balance sheet into the income statement as cost of goods sold. Given that the product is sold, revenue from the sale of the product is also added to the income statement. The difference between revenue and cost of sales is the gross profit on the sale. We discuss this cost together with inventories in Module 6.
- **Selling, informational and administrative expense.** Usually, this expense category is labelled Selling, general and administrative (SG&A) expense, and it includes a number of general overhead expense categories, such as:
  - Salaries and benefits for administrative personnel and executives.
  - Rent and utilities for office facilities.
  - Marketing and selling expenses.
  - IT, legal, and accounting expenses.
  - Depreciation for Pfizer's depreciable assets that are used for administrative purposes (we discuss this expense together with property, plant, and equipment in a later module).
- **Research and development expense.** This is the cost Pfizer incurs to conduct research for new products. We discuss this cost in a separate section below.
- **Amortization of intangible assets.** When Pfizer acquires an intangible asset, such as a patent, it amortizes that cost over the useful life of the patent (the period of time Pfizer expects the patent to produce cash flow). Amortization expense is a noncash expense, similar to depreciation expense. Often, it is included with the SG&A expense.
- **Restructuring charges.** This represents the cost Pfizer has incurred and expects to incur to restructure its operations, say, by the elimination of lines of business, consolidation of operations, reduction of the number of employees, and the like. We discuss restructuring charges in a later module.
- **Provision for taxes on income.** The tax provision shown on the income statement relates to Pfizer's profit. These are taxes that will be paid to federal and state taxing authorities as well as income taxes levied by foreign governments and municipalities. We discuss the income tax expense in a later module. Other types of taxes, such as sales tax or employment taxes are included in SG&A and not with the income tax expense.

- **Discontinued operations.** This represents the operating profit (or loss) plus the gain (or loss) on the sale of businesses Pfizer has decided to divest. We discuss discontinued operations in a separate section below.
- **Income attributable to noncontrolling interest.** Noncontrolling interest arises because Pfizer has one or more subsidiaries where Pfizer does not own 100% of the voting stock. So, while Pfizer owns the controlling interest (> 50% of the voting stock), other shareholders own the balance of the stock (the noncontrolling interest). The income attributable to the noncontrolling interest is their portion of the subsidiary's income (and is added to the noncontrolling interest equity account on Pfizer's balance sheet). The remainder of the subsidiary's net income is credited to Pfizer's shareholders and is added to retained earnings on Pfizer's balance sheet.

Research and Development Expense

Companies in many industries depend heavily on research and development (R&D) for new and improved products and services. For these companies, R&D is critical because failure to offer "cutting edge" technology can lead to loss of market share and even bankruptcy. R&D costs broadly consist of the following.

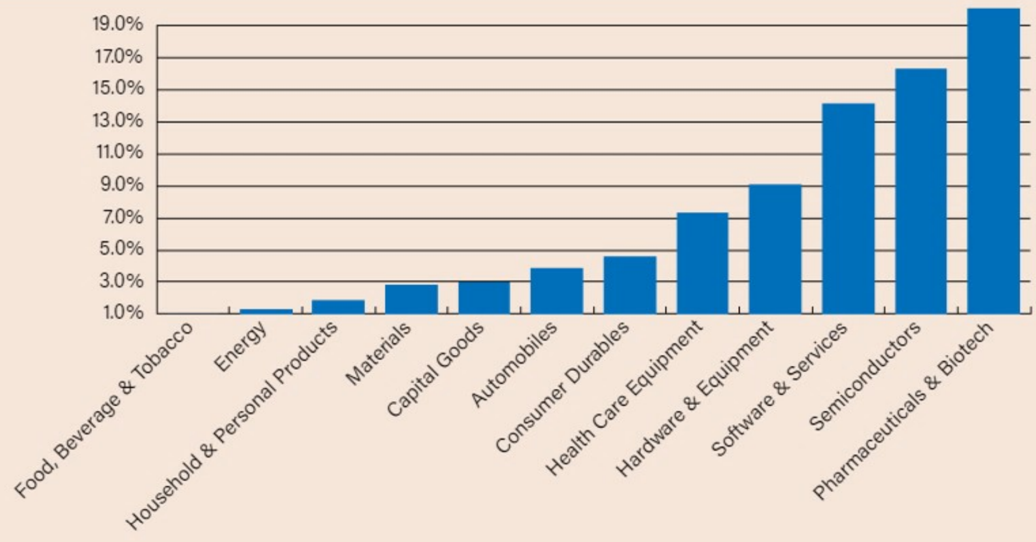
- Salaries and benefits for researchers and developers.
- Supplies needed to conduct the research.
- Licensing fees for intellectual property or software used in the R&D process.
- Third-party payments to collaborators at other firms and universities.
- Laboratory and other equipment.
- Property and buildings to be used as research facilities. As we discuss in a later module, research facilities are included in PPE and the depreciation on research facilities is included in R&D expense each year.

Accounting for R&D is straightforward: R&D costs are expensed as incurred.

R&D Spending

Exhibit 5.2 shows the median level of R&D spending in 2015 for the S&P 500 firms that report R&D expense on the income statement.

Exhibit 5.2 ■ **S&P 500 Median R&D Expense to Revenue**



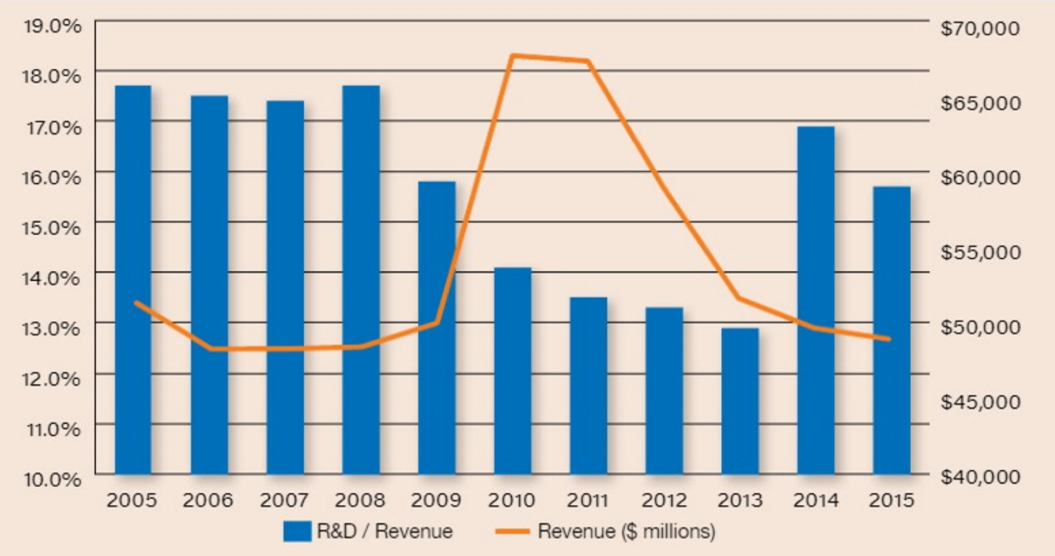
Analysis of R&D

Analysis of R&D

Our analysis of R&D starts with measuring R&D expense in dollars and as a percentage of total revenues. It is important to compare a company's R&D spending to its peers.

R&D is a significant expense for Pfizer as it seeks new compounds and drugs to bring to market. In 2015, Pfizer's R&D expense is $7,690 million or 15.7% of total revenues. As Exhibit 5.3 shows, Pfizer's R&D expense has ranged between 13% and 18% of total revenues over the past 11 years, in line with the 19.5% median for the pharmaceutical and biotech sector. The apparent decline in R&D spending from 2009 through 2013 is attributable to the spike in revenue during those years and not to a decline in R&D spending levels.

Exhibit 5.3 ■ Pfizer R&D Expense



Among Pfizer's peers there are significant differences in the percentage of revenues devoted to R&D expenditures (see Exhibit 5.4). Pfizer's R&D is at the low end of the range among its peers. Our analysis focuses on trends over time and whether other firms are experiencing the same trends. As we saw in Exhibit 5.3, R&D spending might vary in percentage terms due to changes in revenue; our analysis needs to consider both dollar levels and percentages.

Exhibit 5.4 ■ R&D Expenditures to Revenue

	2013	2014	2015
Pfizer	12.9%	16.9%	15.7%
Bristol-Myers Squibb	22.8%	28.6%	35.7%
Merck	17.0%	17.0%	17.0%
Eli Lilly	24.2%	25.2%	26.7%
Abbott Laboratories	7.0%	6.6%	6.9%

Financial analysts usually aim to develop *forward-looking* predictions of a company's income and cash flow. To that end, analysts monitor new products in the pipeline and develop estimates of their ultimate commercial feasibility. For example, analysts following pharmaceutical companies frequently prepare schedules of all drugs in development and monitor closely the success of experimental trials. Analysts also monitor the patent expirations of existing products and estimate the impact on sales after a patent expires.

Company managers have a different reason for analyzing R&D—their aim is to maximize return on R&D investments by selecting projects to fund. Managers have a considerable amount of proprietary information about each R&D project, which they can use to make investment decisions. The goal is to maximize the return on the R&D investment by focusing on the following areas:

- **R&D Costs.** Companies can reduce R&D costs by strategically managing the procurement of raw materials and equipment as they do for other business units, by monitoring closely the investment at each stage of the research process (reducing investment cost in high-risk areas and increasing that investment if and when the risk level falls), by outsourcing portions of the research process as they do for other production and business processes, by identifying failed research ventures early and cutting their losses, by partnering with other companies interested in the research to share the investment cost and the risk, and a variety of other measures.
- **Speed of research effort.** Companies can reduce the period of time over which the research is conducted (and thus the cost of the research) with careful planning and control. Some of the same production and scheduling techniques that companies have applied to their manufacturing processes can be applied to the research units. These include project management techniques, parallel processing, and a number of other techniques discussed in operations courses.
- **Quality of decisions.** Each R&D project requires constant monitoring and numerous decisions relating to a succession of investments and go versus no-go decisions. Failed projects need to be identified early and culled from the research portfolio and managers need to continually analyze the extent to which the research is creating knowledge that will lead to commercially feasible products.

It is important for managers to adopt the mind-set that each R&D project is a separate investment decision similar to other capital-budgeting decisions and one which typically involves a series of related investment decisions. It is only with this degree of discipline that the R&D process will achieve maximum returns on investment.

Ultimately, firms invest in R&D to earn future revenues. There is an argument to be made that R&D investments create an asset that should be added to the balance sheet and then depreciated over the expected life of the new product. We discuss this more fully in the next module when we consider intangible assets.

Discontinued Operations

From time to time, as strategy changes, companies will divest a segment of their business. When this occurs, the company reports the event at the bottom of the income statement by segregating income from continuing versus **discontinued operations**. The line item for discontinued operations has two distinct components.

- Net income (or loss) from the segment's business activities prior to the divestiture or sale.
- Any gain (or loss) on the sale of the business.

In addition to segregating the results of operations of the discontinued operation in the current and previous two years' income statements reported, companies are also required to segregate the discontinued operation's assets and liabilities on the current and prior year's balance sheets.

In 2013, Pfizer sold its animal health business to a newly formed company, **Zoetis**. Prior to the sale, the animal health business reported a net income of $308 million. Pfizer reported these operating results as "Income from discontinued operations—net of tax" in the 2013 income statement. The sale of the animal health business created a gain on sale of $10,354 million net of tax. That gain represents the difference between the sales proceeds Pfizer received from Zoetis and the amount at which the animal health business was reported on Pfizer's balance sheet on the date of the sale.

Footnotes to Pfizer's 10-K provide data relating to both the income earned by the animal health business through the date of sale along with the gain realized when the business was sold.

Year Ended ($ millions)	December 31, 2013
Revenues	$51,584
Pre-tax income from discontinued operations	408
Provision for taxes on income	100
Income from discontinued operations--net of tax	308
Pre-tax gain on disposal of discontinued operations	10,446
Provision for taxes on income	92
Gain on disposal of discontinued operations--net of tax	10,354
Discontinued operations--net of tax	$10,662

Discontinued operations are segregated in the income statement because they represent a *transitory* item; that is, transactions or events that affect the current period (and in prior periods while the operation was owned by the company) but will not recur. Many readers of financial statements analyze current-year financial statements to gain clues to better predict *future* performance (stock prices, for example, are based on a company's expected profits and cash flows). Although the segregation of transitory items can help us analyze past performance to uncover core operating profit, they are largely irrelevant to predicting future performance. This means investors and other users tend to focus on income from continuing operations because that is the level of profitability that is likely to *persist* (continue) into the future. Likewise, the financial press tends to focus on income from continuing operations when it discloses corporate earnings (often described as "earnings before one-time charges").

Accounting standards relating to discontinued operations have recently changed and have restricted the types of disposals that will be accounted for as discontinued operations. Under the new accounting standard, in order to be classified as a discontinued operation, the disposal of the business unit must represent a *strategic shift* for the company that has or will have a *major effect* on a company's financial results. This represents a substantial hurdle because the company will have to demonstrate that a divestiture represents a strategic shift and creates large financial effects. Consequently, the reporting of discontinued operations is likely to be less frequent in the future.

LO6 Review 5-6

GuidedExamples MBC

Abbott Laboratories reported the following income statement for fiscal 2015.

ABBOTT LABORATORIES AND SUBSIDIARIES
Consolidated Statement of Earnings ($ millions)
For Year Ended December 31, 2015

Net sales	$20,405
Cost of products sold	8,747
Amortization of intangible assets	601
Research and development	1,405
Selling, general, and administrative	6,785
Total operating cost and expenses	17,538
Operating earnings	2,867
Other (income) expense, net	(316)
Earnings from continuing operations before taxes	3,183
Taxes on earnings from continuing operations	577
Earnings from continuing operations	2,606
Earnings from discontinued operations, net of taxes	65
Gain on sale of discontinued operations, net of taxes	1,752
Net earnings from discontinued operations, net of taxes	1,817
Net earnings	$ 4,423

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Abbott's income statements for 2014 and 2013 revealed the following.

$ millions	2014	2013
Net sales	$20,247	$19,657
Research and development	1,345	1,371

Required

1. Which of the following expenses would **not** be included in selling, general, and administrative expense on the income statement?

- Salary for the chief executive officer
- Office supplies
- Utilities for the research laboratories
- Depreciation on the company jet
- Wages for manufacturing employees
- Shipping costs for products delivered to customers
- Pharmaceuticals consumed during phase III trials for FDA approvals
- Depreciation on machines that package and label finished goods

2. Compare R&D expense for 2013 through 2015. (*Hint:* First, determine the common-size expense.) List three types of activities that are included in total R&D expense for Abbott.
3. Explain the item on the income statement labeled, "Earnings from discontinued operations."
4. Explain how the gain on sale of discontinued operations arose.
5. How should analysts treat the net earnings from discontinued operations?
6. Abbott operates dozens of subsidiaries around the world. From the income statement alone, does it appear that Abbott owns 100% of the voting stock of all of its subsidiaries?

Solution on p. 5-53.

Pro Forma Income Reporting

eLectures MBC **LO7** Interpret pro forma and non-GAAP disclosures.

In its fourth quarter earnings release for 2015, Pfizer described its financial performance as follows.

Pfizer

PFIZER REPORTS FOURTH-QUARTER AND FULL-YEAR 2015 RESULTS
PROVIDES 2016 FINANCIAL GUIDANCE

- Fourth-Quarter 2015 Reported Revenues of $14.0 Billion, Reflecting 14% Operational Growth Driven by 22% Operational Growth from the Innovative Products Business
- Full-Year 2015 Reported Revenues of $48.9 Billion, Reflecting 6% Operational Growth Driven by 19% Operational Growth from the Innovative Products Business
- Fourth-Quarter 2015 **Adjusted Diluted EPS** of $0.53 and Reported Diluted EPS of $0.10; Full-Year 2015 Adjusted Diluted EPS of $2.20 and Reported Diluted EPS of $1.24

The company reports revenue growth and specifically highlights "adjusted" diluted EPS (boldface emphasis added). What is this metric, and why does Pfizer report it? To arrive at the adjusted EPS number, Pfizer made a number of deductions and additions to its published GAAP financials because company management believes doing so provides a better measure of Pfizer's financial performance. These adjusted income statements (sometimes referred to as *pro forma* income statements or non-GAAP numbers) are increasingly common.

Regulation G Reconciliation

Regulation G Reconciliation

The Securities and Exchange Commission (SEC), which oversees all publicly traded companies in the United States, requires that companies reconcile such non-GAAP information to GAAP numbers so financial statement readers can have a basis for comparison and can evaluate the excluded items (**Regulation G**). To comply with the regulation, Pfizer provides the following adjusted income statement in the management discussion and analysis (MD&A).

	Twelve Months Ended December 31, 2015					
In millions, except per common share data	GAAP Reported	Purchase Accounting Adjustments	Acquisition-Related Costs	Discontinued Operations	Certain Significant Items	Non-GAAP Adjusted
Revenues	$48,851	$□□□–	$□□–	$ –	$□□□–	$48,851
Cost of sales	9,648	(413)	(75)	–	(140)	9,021
Selling, informational and administrative expenses	14,809	–	–	–	(484)	14,324
Research and development expenses	7,690	7	–	–	(44)	7,653
Amortization of intangible assets	3,728	(3,598)	–	–	–	130
Restructuring charges and certain acquisition-related costs	1,152	–	(820)	–	(333)	–
Other (income)/deductions—net	2,075	52	–	–	(2,536)	(409)
Income from continuing operations before provision for taxes on income	9,749	3,953	894	–	3,537	18,133
Provision /(benefit) for taxes on income	1,990	1,110	303	–	949	4,352
Income from continuing operations	7,759	2,843	591	–	2,588	13,781
Discontinued operations—net of tax	11	–	–	(11)	–	–
Net income attributable to noncontrolling interests	26	–	–	–	–	26
Net income attributable to Pfizer Inc.	7,745	2,843	591	(11)	2,588	13,755
Earnings per common share attributable to Pfizer Inc.—diluted	1.24	0.45	0.09	–	0.41	2.20

Adjusted income and its components . . . exclude purchase accounting adjustments, acquisition-related costs, discontinued operations and certain significant items . . . As described under Adjusted income in the Management's Discussion and Analysis of Financial Condition and Results of Operations section of Pfizer's Quarterly Report on Form 10-Q for the fiscal quarter ended September 27, 2015, management uses Adjusted income, among other factors, to set performance goals and to measure the performance of the overall company. We believe that investors' understanding of our performance is enhanced by disclosing this measure.

Pfizer's "adjusted" net income is $13,755 million (as compared with GAAP net income of $7,745 million), and excludes costs primarily relating to transitory items, such as costs relating to acquisitions completed during the year, discontinued operations, and other one-time nonrecurring items.[2]

Pfizer's management appears to be thorough in its reporting of "adjusted" income statement items, but other companies may not be. It is important to remember that a company's purpose for making a non-GAAP disclosure is to portray its financial performance the way that management would like us to analyze it. Unscrupulous companies can attempt to lower the bar for analysis by presenting financial results in the best possible light.

SEC Warnings about Pro Forma Numbers

The SEC is very mindful of the potential for abuse in pro forma income statements and cautions investors as follows.[3]

We believe it is appropriate to sound a warning to public companies and other registrants who present to the public their earnings and results of operations on the basis of methodologies other than Generally Accepted Accounting Principles ("GAAP"). This presentation in an earnings release is often referred to as "pro forma" financial information. In this context, that term has no defined meaning

continued

[2] "GAAP reported" net income in this 4Q earnings release differs from the 10-K reported net income we present in Exhibit 5.1 because, as Pfizer explains in its earnings release, "Subsidiaries operating outside the U.S. are included for the three and twelve months ended November 30, 2015 and 2014" to facilitate the reporting of the 4Q results.

[3] Excerpted from Securities and Exchange Commission (Release Nos. 33-8039, 34-45124, FR-59) "Cautionary Advice Regarding the Use of 'Pro Forma' Financial Information in Earnings Releases," https://www.sec.gov/rules/other/33-8039.htm.

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Business Insight ■ Meeting or Beating Analysts' Forecasts

Missing analysts' earnings forecasts can cause stock prices to tumble. Therefore, managers aim to meet or beat Wall Street's expectation, sometimes resorting to earnings management involving accounting accruals, and other times using real actions (such as channel stuffing). Such actions reduce accounting quality. One way analysts and researchers detect potential earnings management is to identify unusual accruals and reversals (negative accruals) and quantify their effect on earnings. Of particular interest are unusual accruals that move earnings per share (EPS) enough to meet or beat analysts' earnings forecasts; such accruals raise suspicion of managerial opportunism. Consider the case of **Green Mountain Coffee**. Its consensus EPS forecast was $0.38 for the second quarter of fiscal 2011, which it beat by $0.10 per share, a 26% margin! The company's stock price shot up nearly 20% to $75.98. But a closer inspection of Green Mountain Coffee's financial statements reveals the company beat earnings forecast not due to stellar performance, but to an accounting anomaly. Its statement of cash flows reveals an unusual (negative) accrual of $22,259 thousand for sales returns for the second quarter of fiscal 2011. GAAP requires that firms report revenues net of anticipated sales returns. When customers return products, the company reduces the allowance for sales returns on the balance sheet. At the end of the quarter, the company estimates sales returns for the current quarter's sales, records the appropriate expense on the income statement, and updates the sales-return allowance. It is atypical for a company to have a negative expense for sales returns. A negative sales-return expense (a reversal) increases revenues and earnings. This is what Green Mountain Coffee reported in 2Q 2011. On an after-tax basis, the reversal increased Green Mountain Coffee's net income by $14,468 thousand, or about $0.10 per share (147,558,595 shares diluted outstanding at March 26, 2011). A skeptical analyst might conclude that the company recorded a negative accrual to beat Wall Street's expectations. Such behavior hinders the quality of reported earnings.

The purported motive for reporting pro forma income is to eliminate transitory (one-time) items to enhance year-to-year comparability. Although this might be justified on the basis that pro forma income has greater predictive ability, important information could be lost in the process. One role for accounting is to report how effective management has been in its stewardship of invested capital. Asset write-downs, liability accruals, and other charges that are eliminated in calculating pro forma income often reflect outcomes of poor management decisions. Our analysis must not blindly eliminate information contained in nonrecurring items by focusing solely on pro forma income. Critics of pro forma income also argue that the items excluded by managers from GAAP income are inconsistent across companies and time. They contend that a major motive for pro forma income is to mislead stakeholders. Legendary investor Warren Buffett puts pro forma in context: "When companies or investment professionals use terms such as 'EBITDA' and 'pro forma,' they want you to unthinkingly accept concepts that are dangerously flawed." (Berkshire Hathaway, Annual Report)

Research Insight ■ Assessing Earnings Quality

It is no secret that corporate executives can and do make choices to deliberately influence reported earnings. GAAP permits choices so that each company can make its financial reports as relevant as possible. But the latitude granted by GAAP opens the door for potential abuse that reduces the quality of financial reports in general and of net earnings in particular. But how prevalent is such deliberate intervention? Can it be detected?

Recently, a team of accounting researchers surveyed and interviewed chief financial officers (CFOs) and other finance executives at 400 firms (169 public and 231 private). The research aimed to uncover CFOs' thinking about earnings quality and reasons for deliberate intervention in the reporting process. According to the CFOs, nearly 20% of public companies and 25% of private companies use allowable discretion in GAAP to misrepresent earnings with average misrepresentations of 12 cents on the dollar. Interestingly, 33% of the misrepresentations *decreased* earnings.

When asked about potential motivations for deliberately misrepresent earnings, CFOs almost unanimously agreed it was "to influence stock price," "to hit earnings benchmarks," and "to influence executive compensation." The researchers compiled a list of 20 red flags that suggest earnings misrepresentation according to the CFOs.

1. GAAP earnings and cash flow from operations move in different direction for 6–8 quarters.
2. Deviations from industry norms on critical metrics, including cash cycle, average profitability, revenue growth, asset impairment, level of disclosure.
3. Consistently meeting or beating earnings targets.
4. Large or frequent one-time items, such as restructuring charges, write-downs, or gains and losses on asset sales.

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5. Large changes in accruals or capitalized costs and insufficient explanation of such changes.
6. Too smooth of an earnings progression (relative to economy, market).
7. Frequent changes in significant accounting policies.
8. Using non-GAAP metrics.
9. High executive and employee turnover, sudden change in top management.
10. Inventory buildup and mismatch between inventory and COGS.
11. Wide swings in earnings, especially without real change in business.
12. Buildups of receivables, deterioration of days sales outstanding.
13. Aggressive use of long-term estimates and lack of explanatory detail on estimates.
14. SEC filings becoming less transparent, uninformative MD&A, complex footnotes.
15. Major jumps or turnarounds or breaks with historical performance.
16. Large incentive compensation payment and management turnover after bonus payments.
17. Repeated restatement of earnings and prior period adjustments.
18. Accruals, assets, and working capital growing faster or slower than revenue.
19. Increased debt and high liabilities.
20. Weak sales growth or declining performance versus the industry.

Source: Dichev, I. D., Graham, J. R., Harvey, C. R. and Rajgopal, S., "Earnings Quality: Evidence from the Field" (2013). Available at SSRN: http://ssrn.com/abstract=2103384 or http://dx.doi.org/10.2139/ssrn.2103384.

Review 5-7 LO7

GuidedExamples MBC

In its SEC filing for the quarter ended March 31, 2016, **AT&T** provided the proforma disclosures below. Use this information to answer the requirements.

NON-GAAP CONSOLIDATED RECONCILIATION
Adjusted EBITDA and Margin

Unaudited ($ millions)	Three Months Ended, March 31, 2016	Three Months Ended, March 31, 2015
Reported operating income	$7,131	$5,557
Plus: Depreciation and amortization	6,563	4,578
EBITDA	13,694	10,135
Adjustments:		
Wireless merger integration costs	42	209
DIRECTV/Mexico merger integration costs	254	89
Employee separation costs	25	217
Gain on transfer of wireless spectrum	(736)	–
Adjusted EBITDA	$13,279	$10,650

Required

1. Why do firms, including AT&T, publicly report non-GAAP information?
2. By deducting the gain on the transfer of wireless spectrum, AT&T reduced its adjusted EBITDA. Why would the company include an adjustment that worsened the reported non-GAAP number?

Solution on p. 5-54.

Global Accounting

IFRS

Revenue Recognition

The new revenue recognition standard, as discussed in this module, eliminates many prior differences between U.S. GAAP and IFRS. That is, the accounting for revenue is now nearly identical between the two systems. Prior to the new rules (before 2018), companies reporting under IFRS were likely to recognize revenues earlier for the following reasons:

1. U.S. GAAP has specific guidance about what constitutes revenue, how revenue is measured, and the timing of its recognition. Also, U.S. GAAP has extensive, industry-specific revenue recognition guidelines. IFRS is not specific about the timing and measurement of revenue recognition and does not provide industry-specific guidance. With less detailed guidance, the general management preference for reporting income earlier will likely prevail.
2. For multiple-element contracts, both U.S. GAAP and IFRS allocate revenue based on relative fair values of the elements. However, IFRS requires fair-value estimates that are less restrictive.
3. GAAP prohibits percentage of completion method for service transactions whereas IFRS permits that method, with certain exceptions.

For these reasons, IFRS companies are likely to report higher revenues (and net income). This front-loading of revenues is likely more pronounced for high revenue-growth companies and for industries with more multiple-element contracts.

Accounts Receivable

Accounts receivable are accounted for identically with one notable exception. Under IFRS, all receivables are treated as financial assets. This means future cash flows from accounts receivable must be discounted and reported at net present value. This measurement applies to both short- and long-term receivables, assuming the effect of discounting is material. For analysis purposes, we review the notes to determine the discount rate used by the company using IFRS and assess the significance of any discounting. Ratios using accounts receivable (such as turnover ratios and current ratios) can be affected.

Guidance Answers

You Are the Receivables Manager

Pg. 5-21 First, we must realize that extending credit is an important tool in the marketing of your products, often as important as advertising and promotion. Given that receivables are necessary, there are certain ways to speed their collection. (1) We can better screen the customers to whom we extend credit. (2) We can negotiate advance or progress payments from customers. (3) We can use bank letters of credit or other automatic drafting procedures that obviate billing. (4) We can make sure products are sent as ordered, to reduce disputes. (5) We can improve administration of past-due accounts to provide for more timely notices of delinquencies and better collection procedures.

Questions

Q5-1. What is a performance obligation and how is it related to revenue recognition?

Q5-2. Explain how management can shift income from one period into another by using the allowance for uncollectibles account.

Q5-3. Why do companies allow sales returns, and how does this business practice affect reported revenue?

Q5-4. The income statement line item, "Discontinued operations" typically comprises two distinct components. What are they?

Q5-5. What effect, if any, does a weakening $US have on reported sales and net income for companies operating outside the United States?

Q5-6. Explain why analysts might remove foreign exchange gains or losses when analyzing revenue and expenses for the year.

Q5-7. What is meant by "aging" of accounts receivable?

Q5-8. Under what circumstances is it appropriate to use the cost-to-cost method to measure revenue?

Q5-9. What is the concept of pro forma income and why has this income measure been criticized?

Q5-10. What is unearned revenue? Provide three examples of unearned revenue.

Q5-11 What is the current U.S. GAAP accounting treatment for research and development costs?

Q5-12 How would a company recognize revenue on a sale that includes equipment and a multi-year service contract all for one price?

Assignments with the MBC logo in the margin are available in myBusinessCourse. See the Preface of the book for details.

Mini Exercises

LO1 **M5-13. Computing Revenues under Long-Term Contracts**

Homework MBC

Camden Corporation agreed to build a warehouse for a client at an agreed contract price of $900,000. Expected (and actual) costs for the warehouse follow: 2016, $202,500; 2017, $337,500; and 2018, $135,000. The company completed the warehouse in 2015. Compute revenues, expenses, and income for each year 2016 through 2018, and for all three years combined, using the cost-to-cost method.

LO1 **M5-14. Applying the Financial Statement Effects Template.**

Refer to the information for Camden Corporation in M5-13.

a. Use the financial statement effects template to record contract revenues and expenses for each year 2016 through 2018 using the cost-to-cost method.

b. Prepare journal entries and T-accounts to record contract revenues and expenses for each year 2016 through 2018 using the cost-to-cost method.

LO1 **M5-15. Assessing Revenue Recognition of Companies**

Identify and explain when each of the following companies fulfills the performance obligations implicit in the sales contract.

The GAP (GPS)
Merck & Company (MRK)
Deere & Company (DE)
Bank of America (BAC)
Johnson Controls (JCI)

a. **The GAP**: The GAP is a retailer of clothing items for all ages.

b. **Merck & Company**: Merck engages in developing, manufacturing, and marketing pharmaceutical products. It sells its drugs to retailers such as **CVS** and **Walgreen**.

c. **Deere & Company**: Deere manufactures heavy equipment. It sells equipment to a network of independent distributors, who in turn sell the equipment to customers. Deere provides financing and insurance services both to distributors and customers.

d. **Bank of America**: Bank of America is a banking institution. It lends money to individuals and corporations and invests excess funds in marketable securities.

e. **Johnson Controls**: Johnson Controls manufactures products for the government under long-term contracts.

LO1 **M5-16. Assessing Risk Exposure to Revenue Recognition**

BannerAD Corporation manages a website that sells products on consignment from sellers. It pays these sellers a portion of the sales price and charges a commission. Identify two potential revenue recognition issues from the perspective of BannerAd Corporation.

LO1, 2 **M5-17. Estimating Revenue Recognition with Right of Return**

ModCloth Inc.

ModCloth Inc. offers an unconditional return policy. It normally expects 2% of sales at retail selling prices to be returned before the return period expires. Assuming ModCloth records total sales of $10 million for the current period, what amount of *net* sales should it record for this period?

LO5 **M5-18. Estimating Uncollectible Accounts and Reporting Accounts Receivable**

Mohan Company estimates its uncollectible accounts by aging its accounts receivable and applying percentages to various aged categories of accounts. Mohan computes a total of $2,100 in estimated uncollectible accounts as of its current year-end. Its accounts receivable has a balance of $86,000, and its allowance for uncollectible accounts has an unused balance of $700 before any year-end adjustments.

a. What amount of bad debts expense will Mohan report in its income statement for the current year?

b. Determine the net amount of accounts receivable reported in current assets at year-end.

LO5 **M5-19. Interpreting the Allowance Method for Accounts Receivable**

At a recent board of directors meeting of Bismark Corp., one of the directors expressed concern over the allowance for uncollectible accounts appearing in the company's balance sheet. "I don't understand this account," he said. "Why don't we just show accounts receivable at the amount owed to us and get rid of that allowance?" Respond to the director's question; include in your response (a) an explanation of why the company has an allowance account, (b) what the balance sheet presentation of accounts receivable is intended to show, and (c) how accrual accounting (as opposed to the cash-basis accounting) affects the presentation of accounts receivable.

M5-20. Analyzing the Allowance for Uncollectible Accounts LO5

M5-20. Analyzing the Allowance for Uncollectible Accounts
Following is the current asset section from the **Mondelēz** balance sheet.

LO5
Mondelēz International (MDLZ)

$ millions	2015	2014
Cash and cash equivalents	$1,870	$1,631
Trade receivables (net of allowances of $54 at 2015 and $66 at 2014)	2,634	3,802
Other receivables (net of allowances of $109 at 2015 and $91 at 2014)	1,212	949
Inventories, net	2,609	3,480
Deferred income taxes	—	480
Other current assets	633	1,408
Total current assets	$8,958	$11,750

a. Compute the gross amount of trade receivable for both 2015 and 2014. Compute the percentage of the allowance for uncollectible trade relative to the gross amount of trade receivable for each of those years.
b. Compute the relative size of net trade receivable to total assets; the latter were $62,843 million and $66,771 million for 2015 and 2014, respectively. Interpret the quality of Mondelēz's receivables for 2015 compared with 2014.

M5-21. Evaluating Accounts Receivable Turnover for Competitors
The Procter & Gamble Company and **Colgate-Palmolive Company** report the following sales and accounts receivable balances ($ millions) for 2015 and 2014.

LO5
The Procter & Gamble Company (PG)
Colgate-Palmolive Company (CL)

	Procter & Gamble		Colgate-Palmolive	
$ millions	Sales	Accounts Receivable	Sales	Accounts Receivable
2015	$76,279	$4,861	$16,034	$1,427
2014	80,510	6,386	17,277	1,552

a. Compute the accounts receivable turnover and DSO for both companies for 2015.
b. Identify and discuss a potential explanation for the difference between these competitors' accounts receivable ratios.

M5-22. Interpreting Foreign Currency Translation Disclosure
Procter & Gamble Company reports the following table in its 10-K report relating to the change in sales from 2015 to 2016.

LO4
Procter & Gamble Company (PNG)

Net Sales Change Drivers 2016 vs. 2015

	Volume	Foreign Exchange	Price	Mix	Net Sales Growth
Beauty	(5)%	(6)%	2%	—	(9)%
Grooming	(2)%	(9)%	5%	(2)%	(8)%
Health care	(2)%	(6)%	2%	1%	(5)%
Fabric & home care	(1)%	(6)%	—	—	(7)%
Baby, feminine & family care	(3)%	(6)%	—	—	(9)%
Total company	(3)%	(6)%	1%	—	(8)%

a. Did total company net sales increase or decrease during the year? By what percentage? How much of this change is attributable to volume versus price changes?
b. What was the effect of foreign exchange rates on sales during the year? From this result, what can we infer about the relative strength of the $US during the period?
c. The Beauty and the Baby, Feminine & Family Care segment sales both decreased by 9%. From this result, can we conclude that the dollar decrease in sales was the same for both segments? Explain.

LO3 M5-23. Assessing Revenue Recognition for Advance Payments

LO3 **M5-23. Assessing Revenue Recognition for Advance Payments**
Hamilton Company operates a performing arts center. The company sells tickets for its upcoming season of six Broadway musicals and receives $630,000 cash. The performances occur monthly over the next six months.

a. When should Hamilton record revenue for the Broadway musical series?
b. Use the financial statement effects template to show the $630,000 cash receipt and recognition of the first month's revenue.

LO3 Target Corporation (TGT) **M5-24. Reporting Unearned Revenue**
Target Corporation sells gift cards that can be used at any of the company's Target stores or on Target.com. Target encodes information on the card's magnetic strip about the card's value and the store where it was purchased. Target gift cards do not have expiration dates.
a. How will Target's balance sheet reflect the gift card? Will the balance sheet amount of these cards be classified as current or noncurrent?
b. When does Target record revenue from the gift card?

LO2 Homework MBC **M5-25. Sales Returns**
Which of the following statements is true relating to the allowance for sales returns?

a. Sales returns is treated as an expense in the income statement and, therefore, reduces profit for the period.
b. An excess of the amount by which the allowance for sales returns is increased compared with the actual returns for the period indicates the company may have inflated profit for the period.
c. The amount by which the allowance for sales returns is reduced during the period is recognized as a reduction of sales for the period, thus reducing profit.
d. Increasing the allowance for sales returns by an amount that is less than the actual returns recognized for the period may indicate either the company is attempting to increase profit for the period or it estimates that less of its products will be returned in the future.

Homework MBC **LO3** **M5-26. Deferred Revenue**
True or false: A reduction of the deferred revenue account can be interpreted as a leading indicator of lower future revenues. Explain.

Homework MBC **LO4** **M5-27. Foreign Exchange Effects on Sales**
True or false: A multinational company reports that a large amount of its sales is generated in foreign currencies that have strengthened vis-à-vis the $US. Consolidated revenues are likely lower than would have been reported in the absence of such a shift in exchange rates.

LO6 **M5-28. Operating Expenses**
Indicate whether each of the following is true or false.

a. Amortization expense is a noncash expense similar to depreciation, except it applies to intangible assets.
b. Income attributable to noncontrolling interests is an expense item that reduces net income.
c. Discontinued operations relate to any segment of the business a company is selling.
d. The income (loss) of Discontinued operations and gain (loss) on their sale are reported in the income statement like other revenue and expense items.

LO7 Kellogg Company (K) **M5-29. Pro Forma Numbers**
Kellogg's included the following note in its fiscal 2015 10-K report.

> The Company's fiscal year normally ends on the Saturday closest to December 31 and as a result, a 53rd week is added approximately every sixth year. The Company's 2014 fiscal year ended on January 3, 2015, and included a 53rd week. While quarters normally consist of 13-week periods, the fourth quarter of fiscal 2014 included a 14th week.

a. Why does Kellogg's disclose this issue?
b. How are year-over-year growth rates affected by the 53rd week?
c. What pro forma adjustment could Kellogg (or we) make to facilitate the analysis of revenue trends?

LO6, 7 Murphy USA Inc. (MUSA) **M5-30. Discontinued Operations and Pro Forma Disclosures**
In its 2015 annual report, **Murphy USA** stated, "We use EBITDA and Adjusted EBITDA in our operational and financial decision-making, believing that such measures are useful to eliminate certain items in order to focus on what we deem to be a more reliable indicator of ongoing operating performance and our ability to generate cash flow from operations." The following table was included.

$ thousands	2015	2014
EBITDA	$374,960	$475,738
(Income) loss from discontinued operations, net of taxes	(38,749)	(20,903)
(Gain) loss on sale of assets	4,658	(194)
Accretion of asset retirement obligations	1,521	1,200
Other nonoperating income (loss)	463	(10,166)
Adjusted EBITDA	$342,853	$445,675

a. What does "EBITDA" stand for, and how does Murphy USA calculate it?
b. To adjust EBITDA, the company subtracted income from discontinued operations. What does the 2015 amount of $38,749 thousand represent?
c. The company subtracted income from discontinued operations of $20,903 thousand in 2014. Can we infer the company discontinued operations in both years?

Exercises

E5-31. Assessing Revenue Recognition Timing LO1

Explain when each of the following businesses fulfills the performance obligations implicit in the sales contract.

a. A clothing retailer like **American Eagle Outfitters Inc.** American Eagle Outfitters Inc. (AEO)
b. A contractor like **Boeing Company** that performs work under long-term government contracts. Boeing Co. (BA)
c. A grocery store like **Supervalu Inc.** Supervalu Inc. (SVU)
d. A producer of television shows like **MTV** that syndicates its content to television stations. MTV
e. A residential real estate developer that constructs only speculative houses and later sells these houses to buyers.
f. A banking institution like **Bank of America Corp.** that lends money for home mortgages. Bank of America Corp. (BAC)
g. A manufacturer like **Harley-Davidson Inc.** Harley-Davidson Inc. (HOG)
h. A publisher of magazines such as **Time-Warner Inc.** Time-Warner Inc. (TWX)

E5-32. Assessing Revenue Recognition Timing and Income Measurement LO1

Explain when each of the following businesses fulfills the performance obligations implicit in the sales contract and recognizes revenue. Identify any revenue measurement issues that could arise.

a. RealMoney.Com, a division of **TheStreet Inc.**, provides investment advice to customers for an up-front fee. It provides these customers with password-protected access to its website, where they can download investment reports. RealMoney has an obligation to provide updates on its website. TheStreet Inc. (TST)
b. **Oracle Corp.** develops general ledger and other business application software that it sells to its customers. The customer pays an up-front fee for the right to use the software and a monthly fee for support services. Oracle Corp. (ORCL)
c. **Intuit Inc.** develops tax preparation software that it sells to its customers for a flat fee. No further payment is required, and the software cannot be returned, only exchanged if defective. Intuit Inc. (INTU)
d. A developer of computer games sells its software with a 10-day right of return period during which the software can be returned for a full refund. After the 10-day period has expired, the software cannot be returned.

E5-33. Constructing and Assessing Income Statements Using Cost-to-Cost Method LO1

General Electric Company (GE)

Assume **General Electric Company** agreed in May 2016 to construct a nuclear generator for NSTAR, a utility company serving the Boston area. The contract price of $750 million is to be paid as follows: $250 million at the time of signing; $250 million on December 31, 2016; and $250 million at completion in May 2017. General Electric incurred the following costs in constructing the generator: $240 million in 2016 and $360 million in 2017.

a. Compute the amount of General Electric's revenue, expense, and income for both 2016 and 2017, and for both years combined, under the cost-to-cost revenue recognition method.
b. Discuss whether or not you believe the cost-to-cost method provides a good measure of General Electric's performance under the contract.

LO1 E5-34. Constructing and Assessing Income Statements Using Cost-to-Cost Method

LO1 **E5-34. Constructing and Assessing Income Statements Using Cost-to-Cost Method**
On March 15, 2017, Gilbert Construction contracted to build a shopping center at a contract price of $220 million. The schedule of expected (which equals actual) cash collections and contract costs follows.

Homework MBC

Year	Cash Collections	Cost Incurred
2017......	$ 55 million	$ 36 million
2018......	88 million	81 million
2019......	77 million	63 million
Total	$220 million	$180 million

a. Calculate the amount of revenue, expense, and net income for each of the three years 2017 through 2019, and for all three years combined, using the cost-to-cost revenue recognition method.
b. Discuss whether or not the cost-to-cost method provides a good measure of this construction company's performance under the contract.

LO4 Kellogg Company (K) **E5-35. Foreign Currency Impact**
Kellogg included the following note in its fiscal 2015 10-K report ($ millions).

Comparable net income attributable to Kellogg	$1,257
Foreign currency impact........	(100)
Currency neutral comparable net income attributable to Kellogg........	$1,357

a. Assume the foreign currency impact related entirely to foreign sales. Determine whether the $US strengthened or weakened vis-à-vis the currencies in which Kellogg conducts business.
b. Assume the foreign currency impact related entirely to purchases of goods from foreign vendors. Determine whether the $US strengthened or weakened vis-à-vis the currencies in which Kellogg conducts business.
c. As an analyst, how would we treat this foreign currency impact in our analysis of Kellogg?

LO6 **E5-36. Identifying Operating Income Components**
Following is the income statement information from Apollo Medical Devices. Identify the components that we would consider operating.

$ thousands	2016
Net sales	$4,163,770
Cost of sales before special charges	1,382,235
Special inventory obsolescence charge........	27,876
Total cost of sales........	1,410,111
Gross profit........	2,753,659
Selling, general and administrative expense	1,570,667
Research and development expense	531,086
Merger and acquisition costs	46,914
In-process research and development charges	12,244
Litigation settlement	16,500
Operating profit........	576,248
Interest expense	(57,372)
Interest income	2,076
Gain on disposal of fixed assets........	4,929
Impairment of marketable securities........	(5,222)
Other income (expense), net........	(2,857)
Earnings before income taxes........	517,802
Income tax expense	191,587
Net earnings........	$ 326,215

E5-37. Identifying Operating Income Components LO6

E5-37. Identifying Operating Income Components LO6

Following is the **Deere & Company** income statement for 2015. Deere & Company (DE)

Homework MBC

$ millions	2015
Net sales and revenues	
Net sales	$25,775.2
Finance and interest income	2,381.1
Other income	706.5
Total	28,862.8
Costs and expenses	
Cost of sales	20,143.2
Research and development expenses	1,425.1
Selling, administrative and general expenses	2,873.3
Interest expense	680.0
Other operating expenses	961.1
Total	26,082.7
Income of consolidated group before income taxes	2,780.1
Provision for income taxes	840.1
Income of consolidated group	1940.0
Equity in income of unconsolidated affiliates	0.9
Net income	1940.9
Less: Net income attributable to noncontrolling interests	0.9
Net income attributable to Deere & Company	$ 1,940.0

Notes:

- The income statement includes John Deere commercial and consumer tractor segment, a finance subsidiary that provides loan and lease financing relating to the sales of those tractors, and a health care segment that provides managed health care services for the company and certain outside customers.
- Equity in income of unconsolidated affiliates refers to income John Deere has earned on investments made for strategic purposes.

a. Identify the components in its income statement that you would consider operating.

b. Discuss your treatment of the company's finance and interest income that relates to financing of its John Deere lawn and garden, and commercial tractors.

E5-38. Analyzing and Interpreting Foreign Currency Translation Effects and Non-GAAP Disclosures LO4, 7

Kellogg Co. reports the following table and discussion in its 2015 10-K for its reportable segments. Kellogg Co. (K)

The following table provides an analysis of net sales and operating profit performance for 2015 versus 2014:

$ millions	U.S Morning Foods	U.S. Snacks	U.S. Specialty	North America Other	Europe	Latin America	Asia Pacific	Corporate	Kellogg Consolidated
2015 net sales	**$2,992**	**$3,234**	**$1,181**	**$1,687**	**$2,497**	**$1,015**	**$ 919**	**$ —**	**$13,525**
2014 net sales	**$3,108**	**$3,329**	**$1,198**	**$1,864**	**$ 2,869**	**$1,205**	**$1,007**	**$ —**	**$14,580**
As Reported	(3.7)%	(2.9)%	(1.4)%	(9.5)%	(13.0)%	(15.8)%	(8.8)%	0.0%	(7.2)%
Project K and cost reduction activities	0.0%	0.0%	0.0%	0.0%	(0.1)%	0.0%	0.0%	0.0%	0.0%
Integration and transaction costs	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	(0.1)%	0.0%	0.0%
Acquisitions/divestitures	0.0%	0.0%	(0.8)%	0.0%	2.0%	0.0%	0.0%	0.0%	0.4%
Difference in shipping days	(2.1)%	(1.3)%	(1.3)%	(1.5)%	(1.1)%	0.0%	(0.8)%	0.0%	(1.3)%
Comparable growth	(1.6)%	(1.6)%	0.7%	(8.0)%	(13.8)%	(15.8)%	(7.9)%	0.0%	(6.3)%
Foreign currency impact	0.0%	0.0%	0.0%	(4.8)%	(13.2)%	(40.4)%	(11.9)%	0.0%	(7.5)%
Currency-Neutral Comparable growth	(1.6)%	(1.6)%	0.7%	(3.2)%	(0.6)%	24.6%	4.0%	0.0%	1.2%

Foreign exchange risk Our Company is exposed to fluctuations in foreign currency cash flows related to third-party purchases, intercompany transactions, and when applicable, nonfunctional

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currency denominated third-party debt. Our Company is also exposed to fluctuations in the value of foreign currency investments in subsidiaries and cash flows related to repatriation of these investments. Additionally, our Company is exposed to volatility in the translation of foreign currency earnings to U.S. Dollars. Primary exposures include the U.S. Dollar versus the British Pound, Euro, Australian Dollar, Canadian Dollar, and Mexican Peso, and in the case of inter-subsidiary transactions, the British Pound versus the Euro. We assess foreign currency risk based on transactional cash flows and translational volatility and enter into forward contracts, options, and currency swaps to reduce fluctuations in net long or short currency positions. Forward contracts and options are generally less than 18 months duration. Currency swap agreements are established in conjunction with the term of underlying debt issuances.

a. Kellogg reported consolidated sales decreased by 7.2% during 2015. What geographic segment accounted for this overall decrease?
b. Kellogg reports "Comparable growth" that shows various adjustments to reported growth numbers. Explain why Kellogg provides this information in its financial statements. Explain the item labeled "Difference in shipping days."
c. How did foreign currency exchange rates affect sales at each of the geographic segments? What can we infer about the strength of the $US vis-à-vis the currencies in Kellogg's segments?
d. Describe how the accounting for foreign exchange translation affects reported sales and profits.
e. How does Kellogg manage the risk related to its foreign exchange exposure? Describe the financial statement effects of this risk management activity.

LO2
Barnes & Noble Inc. (BKS)
Homework MBC

E5-39. Interpreting Revenue Recognition for Gift Cards
Below are the footnotes to **Barnes & Noble Inc.**'s 2016 annual report and membership information obtained from its website.

The Barnes & Noble Member Program offers members greater discounts and other benefits for products and services, as well as exclusive offers and promotions via e-mail or direct mail for an annual fee of $25.00, which is non-refundable after the first 30 days. Revenue is recognized over the twelve-month period based upon historical spending patterns for Barnes & Noble Members. The Barnes & Noble Member Program entitles Members to the following benefits:

- 40% off the list price of the current hardcover Barnes & Noble Store Bestsellers.
- 10% off the marked Barnes & Noble sale price of other eligible items.
- Free Express Shipping.
- Periodic special promotions at Barnes & Noble Stores and at BN.com.

a. Explain in layman's terms how Barnes & Noble accounts for the cash received for its membership program. When does Barnes & Noble record revenue from this program?
b. How does Barnes & Noble's balance sheet reflect those membership fees?
c. Does the 40% discount affect Barnes & Noble's income statement when membership fees are received?

LO6
Target Corp. (TGT)
Homework MBC

E5-40. Operating Expenses
Target Corporation's footnote from its 2015 annual report table illustrates the primary items classified in each major expense category: cost of sales (COS), or selling, general and administrative (SG&A). For each expense, indicate whether the item would be included in COS or SG&A.

a. Advertising expenses. . . . . ______
b. Compensation and benefits costs for headquarters employees . . . . ______
c. Compensation and benefits costs for store employees . . . . ______
d. Compensation and benefits costs for distribution center employees. . . . . . ______
e. Distribution center costs. . . . . ______
f. Freight expenses associated with moving merchandise from our vendors to our distribution centers and our retail stores. . . . . . . ______
g. Freight expenses associated with moving merchandise among our distribution and retail stores. . . . . . . ______
h. Import costs . . . . ______

continued

i. Inventory shrink and theft .... ______
j. Litigation and defense costs and related insurance recovery.......... ______
k. Markdowns on slow moving inventory.......... ______
l. Occupancy and operating costs for headquarters facilities .... ______
m. Occupancy and operating costs of retail locations.......... ______
n. Outbound shipping and handling expenses associated with sales to our guests .... ______
o. Payment term cash discounts to our vendors .... ______
p. Pre-opening costs of stores and other facilities .... ______
q. U.S. credit cards servicing expenses.......... ______
r. Vendor reimbursement of specific, incremental, and identifiable advertising costs .... ______

E5-41. Estimating Uncollectible Accounts and Reporting Accounts Receivable **LO5**

Collins Company analyzes its accounts receivable at December 31 and arrives at the age categories below along with the percentages that are estimated as uncollectible. The balance of the allowance for uncollectible accounts is $1,100 on December 31, before any adjustments.

Homework MBC

Age Group	Accounts Receivable	Estimated Loss %
0–30 days past due	$110,000	1%
31–60 days past due..........	40,000	2
61–120 days past due..........	27,000	5
121–180 days past due	14,000	10
Over 180 days past due..........	9,000	25
Total accounts receivable..........	$200,000	

a. What amount of bad debts expense will Collins report in its income statement for the year?
b. Use the financial statement effects template to record Collins' bad debts expense for the year.
c. What is the balance of accounts receivable on its December 31 balance sheet?

E5-42. Analyzing and Reporting Receivable Transactions and Uncollectible Accounts Using Percentage-of-Sales Method to Estimate Bad Debt Expense **LO5**

At the beginning of the year, Penman Company had the following account balances.

Accounts receivable..........	$356,000
Allowance for uncollectible accounts..........	21,400

During the year, Penman's credit sales were $2,008,000, and collections on accounts receivable were $1,963,000. The following additional transactions occurred during the year.

Feb. 17 Wrote off Bava's account, $8,200.
May 28 Wrote off Reed's account, $4,800.
Dec. 15 Wrote off Fischer's account, $2,300.
Dec. 31 Recorded the bad debts expense assuming Penman's policy is to record bad debts expense as 0.9% of credit sales. (*Hint*: The allowance account is increased by 0.9% of credit sales regardless of write-offs.)

Compute the ending balances in accounts receivable and the allowance for uncollectible accounts. Show how Penman's December 31 balance sheet reports the two accounts.

E5-43. Interpreting the Accounts Receivable Footnote **LO5**

Hewlett-Packard Company reports the following in its 2015 10-K report.

Hewlett-Packard (HPQ)

Homework MBC

October 31 ($ millions)	2015	2014
Accounts receivable..........	$13,363	$13,832

Footnotes to the company's 10-K provide the following additional information relating to its allowance for doubtful accounts.

For the Fiscal Years Ended October 31 ($ millions)	2015	2014	2013
Allowance for doubtful accounts—accounts receivable			
Balance, beginning of period	$232	$332	$464
Provision for doubtful accounts	46	25	23
Deductions, net of recoveries	(89)	(125)	(155)
Balance, end of period	$189	$232	$332

a. What is the gross amount of accounts receivables for Hewlett-Packard in fiscal 2015 and 2014?
b. What is the percentage of the allowance for doubtful accounts to gross accounts receivable for 2015 and 2014?
c. What amount of bad debts expense did Hewlett-Packard report each year 2013 through 2015 (ignore increase in allowance from acquisitions)? How does bad debts expense compare with the amounts of its accounts receivable actually written off? (Identify the amounts, and explain.)
d. Explain the changes in the allowance for doubtful accounts from 2013 through 2015. Does it appear that Hewlett-Packard increased or decreased its allowance for doubtful accounts in any particular year beyond what seems reasonable?

LO5 **E5-44. Estimating Bad Debts Expense and Reporting Receivables**
At December 31, Barber Company had a balance of $420,000 in its accounts receivable and an unused balance of $2,600 in its allowance for uncollectible accounts. The company then aged its accounts as follows.

Current	$346,000
1–60 days past due	48,000
61–180 days past due	17,000
Over 180 days past due	9,000
Total accounts receivable	$420,000

The company has experienced losses as follows: 1% of current balances, 5% of balances 1–60 days past due, 15% of balances 61–180 days past due, and 40% of balances over 180 days past due. The company continues to base its allowance for uncollectible accounts on this aging analysis and percentages.

a. What amount of bad debts expense does Barber report on its income statement for the year?
b. Show how Barber's December 31 balance sheet will report the accounts receivable and the allowance for uncollectible accounts.

LO5 **E5-45. Estimating Uncollectible Accounts and Reporting Receivables over Multiple Periods**
Weiss Company, which has been in business for three years, makes all of its sales on credit and does not offer cash discounts. Its credit sales, customer collections, and write-offs of uncollectible accounts for its first three years follow.

Year	Sales	Collections	Accounts Written Off
2014	$733,000	$716,000	$5,300
2015	857,000	842,000	5,800
2016	945,000	928,000	6,500

a. Weiss recognizes bad debts expense as 1% of sales. (*Hint:* This means the allowance account is increased by 1% of credit sales regardless of any write-offs and unused balances.) What does Weiss' 2013 balance sheet report for accounts receivable and the allowance for uncollectible accounts? What total amount of bad debts expense appears on Weiss' income statement for each of the three years?
b. Comment on the appropriateness of the 1% rate used to provide for bad debts based on your analysis in part *a*.

P5-46. Foreign Currency Fluctuations and Revenue

LO4
Boeing Corporation (BA)

Boeing Corporation has considerable non-U.S. operations. The table below shows Boeing's 2015 revenue by geographic segment along with related exchange rates at the beginning and end of the year. The exchange rates represent the foreign currency equivalent of $1.

		USD exchange rate	
Year ended December 31, 2015 ($ millions)	**Revenue**	**01/01/15**	**12/31/15**
Asia, other than China	$13,433	0.7543	0.7063
Europe	12,248	0.8266	0.9203
China	12,556	6.2025	6.4952
Middle East	10,846	3.6729	3.6729
Oceania	2,601	3.5046	4.3044
Canada	1,870	1.1618	1.3847
Africa	1,398	11.5642	15.5159
Latin America and Caribbean	1,875	14.7414	17.2494
Total non-U.S. revenues	56,827		
United States	39,287		
Total revenues	$96,114		

Required

a. Most of Boeing's contracts are denominated in $US. Assume instead that Boeing wrote contracts for its international customers in their respective domestic currencies. For simplicity, assume the contracts were written on January 2, 2015, and revenue was collected and recognized on December 31, 2015. Use the exchange rate information in the table to calculate the effect on Boeing's 2015 revenue if contracts had been denominated in the various foreign currencies.

b. How would the foreign exchange gain or loss that was computed affect net income?

c. How could Boeing treat such a foreign exchange gain or loss in any non-GAAP disclosures the company might make?

d. How should we, as analysts, treat such a foreign exchange gain or loss?

P5-47. Non-GAAP Disclosures

LO7
Kellogg Co. (K)

In its 2015 annual report, Kellogg reported the following non-GAAP reconciliation.

Reconciliation of Certain Non-GAAP Financial Measures				
Consolidated Results ($ millions)	**2015**	**2014**	**2013**	**2012**
Reported net income	$ 614	$ 632	$1,807	$ 961
Mark-to-market	(298)	(513)	628	(304)
Project K and cost reduction activities	(229)	(218)	(183)	(38)
VIE deconsolidation and other costs impacting comparability	50	(4)	—	
Integration and transaction costs	(22)	(31)	(46)	(34)
Acquisitions/divestitures	5	—	2	—
Shipping day differences	—	25	—	—
Venezuela remeasurement	(149)	—	(11)	—
Comparable net income	1,257	1,373	1,417	1,337
Foreign currency impact	(100)	—	—	
Currency neutral comparable net income	$1,357	$1,373	$1,417	$1,337

- The mark-to-market adjustment pertains largely to unrealized gains and losses on the company's pension plan assets. These assets are held in marketable securities and earn returns that will be used to make retiree pension payments in future years.

- Integration and transaction costs pertain to the cost associated with mergers and acquisitions

- Integration and transaction costs pertain to the cost associated with mergers and acquisitions.

The company makes the following additional statements about the non-GAAP measures.

- Non-GAAP currency-neutral comparable definitions of these metrics are reconciled to the directly comparable measure in accordance with U.S. GAAP within our Management's Discussion and Analysis. We believe the use of such non-GAAP measures provides increased transparency and assists in understanding our underlying operating performance.
- "These non-GAAP measures focus management and investors on the amount of cash available for debt repayment, dividend distribution, acquisition opportunities, and share repurchase."

Required

a. Does Kellogg's reasoning for using and reporting the non-GAAP numbers ring true? Explain.

b. What does Kellogg mean by "currency-neutral" in its reconcilliation?

c. Calculate the year-over-year change (in % terms) in reported net income for the four years presented. Calculate the year-over-year change (in % terms) in the non-GAAP net income. Which trend do we believe more accurately depicts Kellogg's performance over this period?

d. In 2015, did the mark-to-market adjustment increase or decrease GAAP net income? Did the pension assets have additional unrealized gains or losses during fiscal 2015?

e. Explain a potential rationale for the "integration and transaction costs" adjustment. Is there a counter-argument?

LO1, 2 **P5-48. Revenue Recognition and Sales Allowances**

Target Corp. (TGT)

Target Corporation reported total sales of $73,785 million in 2015, $72,618 million in 2014, and $71,279 million in 2013. In 2015, cost of sales was $51,997 million.

The revenue recognition footnote from Target's 2015 annual report includes the following.

- Our retail stores generally record revenue at the point of sale.
- Digital channel sales include shipping revenue and are recorded upon delivery to the guest.
- Total revenues do not include sales tax because we are a pass-through conduit for collecting and remitting sales taxes.
- Generally, guests may return national brand merchandise within 90 days of purchase and owned and exclusive brands within one year of purchase. Revenues are recognized net of expected returns, which we estimate using historical return patterns as a percentage of sales.
- Revenue from gift card sales is recognized upon gift card redemption. Our gift cards do not expire. Based on historical redemption rates, a small and relatively stable percentage of gift cards will never be redeemed, referred to as "breakage." Estimated breakage revenue is recognized over time in proportion to actual gift card redemptions and was not material in any period presented.
- Guests receive a 5 percent discount on virtually all purchases and receive free shipping at Target.com when they use their REDcard. These discounts associated with loyalty programs are included as reductions in sales in our Consolidated Statements of Operations and were $1,067 million, $943 million, and $833 million in 2015, 2014, and 2013, respectively.

Required

a. Use the financial statement effects template to record retail sales of $1,000 in a state with a sales-tax rate of 8%. For this question, assume 10% of all merchandise sold is returned within 90 days.

b. Use the financial statement effects template to record the following transaction: On March 4, an internet customer places an order for $2,000 and pays online with a credit card (which is equivalent to cash for accounting purposes). The goods are shipped from the warehouse on March 6, and FedEx confirms delivery on March 7. Ignore shipping costs, sales tax, and returns.

c. Use the financial statement effects template to record the gift card activity during May. Ignore sales tax and returns. Details are as follows.

continued

$ millions	
Gift card balance May 1	$198
New gift cards sold	148
Gift cards redeemed	(172)
Gift card balance May 31	$174

d. Determine the amount of revenue Target collected from customers who used their loyalty card (REDcard™) for 2013 to 2015. What proportion of total revenues come from REDcard™ customers each year? Does the loyalty program seem to be working? Explain.

P5-49. Research and Development Expense

LO5
International Business Machines Corporation (IBM)

International Business Machines Corporation (IBM) reported the following on its 2015 income statement.

$ millions	Fiscal 2015	Fiscal 2014	Fiscal 2013
Net sales	$81,741	$92,793	$98,367
Cost of sales	$□5,247	$□5,437	$□5,743
Number of new patents	7,355	7,534	6,809

Required

a. Compare IBM's research and development expense to other publicly traded companies and those in the same industry. Comment on the comparison. (*Hint:* Refer to Exhibit 5.2.)
b. IBM's spending on research and development declined during 2015. Quantify this trend. Is this of potential concern to investors?
c. What other data might analysts and investors collect to form an opinion about the level and effectiveness of IBM's R&D endeavors?

P5-50. Analyzing and Interpreting Revenue Recognition Policies and Risks

LO1
Amazon.com Inc. (AMZN)

Amazon.com Inc. provides the following explanation of its revenue recognition policies in its 2015 10-K report.

> Sales of our digital devices, including Kindle e-readers, Fire tablets, Fire TVs, and Echo, are considered arrangements with multiple deliverables, consisting of the device, undelivered software upgrades and/or undelivered non-software services such as cloud storage and free trial memberships to other services. The revenue allocated to the device, which is the substantial portion of the total sale price, and related costs are generally recognized upon delivery. Revenue related to undelivered software upgrades and/or undelivered non-software services is deferred and recognized generally on a straight-line basis over the estimated period the software upgrades and non-software services are expected to be provided for each of these devices.

Required

a. What is an arrangement with multiple deliverables? Explain.
b. Explain how companies account for multiple-element contracts in general.
c. Assume Amazon sold a Kindle Paperwhite with wi-fi capabilities for $180 and the company estimated a selling price (ESP) of $20 per unit for future software upgrades. Further assume that a typical customer keeps their Kindle reader about four years. Compute the revenue Amazon would recognize at the point of sale.
d. Use the financial statement effects template to record the initial sale of a Kindle Paperwhite with wi-fi and the accounting adjustment required at the end of the first year.

LO1, 6 P5-51. Analyzing and Interpreting Income Components and Disclosures

LO1, 6 **P5-51. Analyzing and Interpreting Income Components and Disclosures**

Xerox Corporation (XRX)

Homework MBC

The income statement for **Xerox Corporation** follows.

Years Ended December 31 ($ millions)	2015	2014	2013
Revenues			
Sales	$ 4,748	$ 5,288	$ 5,582
Outsourcing, maintenance and rentals	12,951	13,865	13,941
Financing	346	387	483
Total Revenues	18,045	19,540	20,006
Costs and Expenses			
Cost of sales	2,961	3,269	3,550
Cost of outsourcing, maintenance, and rentals	9,691	9,885	9,808
Cost of financing	130	140	163
Research, development and engineering expenses	563	577	603
Selling, administrative and general expenses	3,559	3,788	4,073
Restructuring and asset impairment charges	186	128	115
Amortization of intangible assets	310	315	305
Other expenses, net	233	232	146
Total costs and expenses	17,633	18,334	18,763
Income before income taxes and equity income	412	1,206	1,243
Income (tax) benefit expense	(23)	215	253
Equity in net income of unconsolidated affiliates	135	160	169
Income from continuing operations	570	1,151	1,159
(Loss) income from discontinued operations, net of tax	(78)	(115)	20
Net income	492	1,036	1,179
Less: net income attributable to noncontrolling interests	18	23	20
Net income attributable to Xerox	$ 474	$ 1,013	$ 1,159

Required

a. Xerox reports several sources of income. How should revenue be recognized for each of these business activities? Explain.

b. Compute the relative size of sales revenue and of revenue from outsourcing, maintenance, and rentals. (*Hint:* Scale each type of revenue by total revenue.) What observations can be made about the different sources of revenue?

c. Xerox reports $233 million in expenses in 2015 labeled as "Other expenses, net." How can a company use such an account to potentially obscure its actual financial performance?

LO1, 3 **P5-52. Analyzing Unearned Revenue Disclosures**

Costco Wholesale (COST)

Homework MBC

The following disclosures (excerpted) are from the August 28, 2016, annual report of **Costco Wholesale Corporation**.

Revenue Recognition We generally recognize sales, net of estimated returns, at the time the member takes possession of merchandise or receives services. When we collect payment from customers prior to the transfer of ownership of merchandise or the performance of services, the amount received is generally recorded as deferred revenue on the consolidated balance sheets until the sale or service is completed. Membership fee revenue represents annual membership fees paid by our members. We account for membership fee revenue, net of estimated refunds, on a deferred basis, whereby revenue is recognized ratably over the one-year membership period.

Revenue ($ millions)	August 28, 2016	August 30, 2015	August 31, 2014
Net sales	$116,073	$113,666	$110,212
Membership fees	2,646	2,533	2,428
Total revenue	$118,719	$116,199	$112,640

continued

Current Liabilities ($ millions)	August 28, 2016	August 30, 2015
Accounts payable	$ 7,612	$ 9,011
Current portion of long-term debt	1,100	1,283
Accrued salaries and benefits	2,629	2,468
Accrued member rewards	869	813
Deferred membership fees	1,362	1,269
Other current liabilities	2,003	1,695
Total current liabilities	$15,575	$16,539

Required

a. Explain in layman's terms how Costco accounts for the cash received for membership fees.

b. Use the balance sheet information on Costco's deferred membership fees liability account and its income statement revenues related to membership fees earned during 2016 to compute the cash Costco received during 2016 for membership fees.

c. Use the financial statement effects template to show the effect of the cash Costco received during 2016 for membership fees and the recognition of membership fees revenue for 2016.

P5-53. Interpreting Accounts Receivable and Related Footnote Disclosure LO5

Following is the current asset section from the **W.W. Grainger Inc.** balance sheet.

W.W. Grainger Inc. (GWW)

Homework MBC

As of December 31 ($ 000s)	2015	2014	2013
Cash and cash equivalents	$ 290,136	$ 226,644	$ 430,644
Accounts receivable (less allowances for doubtful accounts of $22,288, $22,121 and $20,096, respectively)	1,209,641	1,172,924	1,101,656
Inventories—net	1,414,177	1,356,396	1,305,520
Prepaid expenses and other assets	85,670	102,669	115,331
Deferred income taxes	0	61,387	75,819
Prepaid income taxes	49,018	47,529	15,315
Total current assets	$3,048,642	$2,967,549	$3,044,285

Grainger reports the following footnote relating to its receivables.

Allowance for Doubtful Accounts The following table shows the activity in the allowance for doubtful accounts.

For Years Ended December 31 ($ 000s)	2015	2014	2013
Balance at beginning of period	$22,121	$20,096	$19,449
Provision for uncollectible accounts	10,181	12,945	8,855
Write-off of uncollectible accounts, net of recoveries	(10,495)	(9,628)	(7,942)
Business acquisitions, foreign currency and other	481	(1,292)	(266)
Balance at end of period	$22,288	$22,121	$20,096

Required

a. What amount do customers owe Grainger at each of the year-ends 2013 through 2015?

b. What percentage of its total accounts receivable does Grainger deem uncollectible? (*Hint:* percentage of uncollectible accounts = allowance for uncollectible accounts/gross accounts receivable)

c. What amount of bad debts expense did Grainger report in its income statement for each of the years 2013 through 2015?

d. Explain the change in the balance of the allowance for uncollectible accounts since 2013. Specifically, did the allowance increase or decrease as a percentage of gross accounts receivable, and why?

e. If Grainger had kept its 2015 allowance for uncollectible accounts at the same percentage of gross *e.* If Grainger had kept its 2015 allowance for uncollectible accounts at the same percentage of gross accounts receivable as it was in 2013, by what amount would its pretax profit have changed? Explain.

f. Overall, what is your assessment of Grainger's allowance for uncollectible accounts and the related bad debts expense?

LO5 Intuit Inc. (INTU)

P5-54. Analyzing and Interpreting Receivables and Related Ratios

Following is the current asset section from **Intuit Inc.**'s balance sheet. Total revenues were $4,694 million ($1,289 million in product sales and $3,405 million in service revenues and other) in 2016.

July 31 ($ millions)	2016	2015
Current assets:		
Cash and cash equivalents	$638	$ 808
Investments	442	889
Accounts receivable, net of allowance for doubtful accounts of $51 and $45	108	91
Income taxes receivable	20	84
Deferred income taxes	0	231
Prepaid expenses and other current assets	102	94
Current assets of discontinued operations	0	26
Current assets before funds held for customers	1,310	2,223
Funds held for customers	304	337
Total current assets	$1,614	$2,560

Required

a. What are Intuit's gross accounts receivable at the end of 2015 and 2016?

b. For both 2016 and 2015, compute the ratio of the allowance for uncollectible accounts to gross receivables. What trend do you observe?

c. Compute the receivables turnover ratio and the average collection period for 2013 based on gross receivables computed in part *a*. Does the collection period (days sales in receivables) appear reasonable given Intuit's lines of business (Intuit's products include QuickBooks, TurboTax, and Quicken, which it sells to consumers and small businesses)? Explain.

d. Is the percentage of Intuit's allowance for uncollectible accounts to gross accounts receivable consistent with what you expect for Intuit's line of business? Explain.

e. Intuit discloses the following table related to its allowance for uncollectible accounts from its 10-K. Comment on the change in the allowance account during 2015 through 2016.

Allowance for doubtful accounts ($ millions)	Beginning Balance	Additions Charged to Expense	Deductions	Ending Balance
Year ended July 31, 2016	$45	$49	$(43)	$51
Year ended July 31, 2015	$40	$57	$(52)	$45
Year ended July 31, 2014	$38	$50	$(48)	$40

IFRS Applications

LO1, 3 Telstra Corporation Limited

I5-55. Analyzing Unearned Revenue Transactions and Multiple-Element Arrangements

Telstra Corporation Limited is an Australian telecommunications and technology company that offers a full range of communications services in all telecommunications markets. In Australia, Telstra provides 17.2 million mobile services, 7.0 million fixed voice services, and 3.4 million retail fixed broadband services. Excerpts from the company's revenue recognition footnote follow.

Revenue Recognition Our categories of sales revenue are recorded after deducting sales returns, trade allowances, discounts, sales incentives, duties and taxes.

Services revenue Revenue from the provision of our telecommunications services includes telephone calls and other services and facilities provided, such as internet and data. We record revenue earned from:

- telephone calls on completion of the call; and
- other services generally at completion, or on a straight line basis over the period of service provided, unless another method better represents the stage of completion.

Installation and connection fee revenues that are not considered to be separate units of accounting are deferred and recognised over the average estimated customer life. Incremental costs directly related to these revenues are also deferred and amortised over the customer contract life. In relation to basic access installation and connection revenue, we apply management judgement to determine the estimated customer contract life. Based on our reviews of historical information and customer trends, we have determined that our average estimated customer life is 5 years.

Sale of goods Our revenue from the sale of goods includes revenue from the sale of customer equipment and similar goods. This revenue is recorded on delivery of the goods sold. Generally we record the full gross amount of sales proceeds as revenue, however if we are acting as an agent under a sales arrangement, we record the revenue on a net basis, being the gross amount billed less the amount paid to the supplier. We review the facts and circumstances of each sales arrangement to determine if we are an agent or principal under the sale arrangement.

Revenue arrangements with multiple deliverables Where two or more revenue-generating activities or deliverables are sold under a single arrangement, each deliverable that is considered to be a separate unit of accounting is accounted for separately. When the deliverables in a multiple deliverable arrangement are not considered to be separate units of accounting, the arrangement is accounted for as a single unit. We allocate the consideration from the revenue arrangement to its separate units based on the relative selling prices of each unit. If neither vendor specific objective evidence nor third party evidence exists for the selling price, then the item is measured based on the best estimate of the selling price (BESP) of that unit. The revenue allocated to each unit is then recognised in accordance with our revenue recognition policies described above.

Required

a. Explain in layman's terms how Telstra records revenue from sales of bundled contracts.

b. Telstra sells a number of prepaid mobile packages for voice, text, and data. Assume a customer pays \$100 in cash for a prepaid plan and Telstra activates service immediately. Explain how and when Telstra recognizes the \$100 as revenue.

c. Assume that, at the beginning of the fiscal year, a customer makes a volume purchase of 200 iPhones and signs a two-year contract with Telstra for a voice and data package for each phone. The total discounted sales price is \$480 per phone, and Telstra pays Apple \$640 for each iPhone. Telstra loses money on the handset but makes it up by locking the customer into a long-term service contract. This contract includes free future software upgrades for two years. Because there is no reliable vendor-specific objective evidence, Telstra estimates a BESP of \$64 for the future software upgrades. Allocate the consideration received for the 200 units to each respective element in the arrangement, based on its relative selling price (the sale is on account).

d. Use the financial statement effects template to record the original sale in part *c.*, above, and the accounting adjustment at the end of the first fiscal year after the sale.

I5-56. Identifying Operating Income Components LO1, 2, 7 Mitel (MITL)

Headquartered in Ottawa, Ontario, Canada, **Mitel Networks Corporation** is a high-tech company that provides unified communications solutions for business. The company focuses almost entirely on Voice-over-IP (VoIP) products. Mitel has partners and resellers worldwide and is listed on the NASDAQ; its income statement follows.

MITEL NETWORKS CORPORATION Consolidated Statement of Operations Data For Year Ended December 31 (in U.S. dollars, millions)	2015
Revenues	$1,157.7
Cost of revenues	543.8
Gross margin	613.9
Expenses:	
Selling, general and administrative	363.0
Research and development	131.4
Special charges and restructuring costs	54.6
Amortization of acquisition-related intangible assets	75.1
	624.1
Operating income (loss)	(10.2)
Interest expense	(32.4)
Debt retirement and other debt costs	(9.6)
Other income (expense), net	20.9
Income tax recovery	10.6
Net income (loss)	$ (20.7)

Required

a. Identify the components considered operating for each year.
b. Identify the nonrecurring items for 2015 and explain how financial analysts would treat each item.

Management Applications

LO4 MA5-57. Managing Foreign Currency Risk

Fluctuations in foreign currency exchange rates can result in increased volatility of revenues, expenses, and profits. Companies generally attempt to reduce this volatility.

a. Identify two possible solutions to reduce the volatility effect of foreign exchange rate fluctuations.
b. What costs would arise if you implemented each of your solutions?

LO1 MA5-58. Ethics and Governance: Revenue Recognition

GAAP revenue recognition standards are based on broad principles rather than bright-line rules. This creates a certain amount of latitude in determining when revenue is earned. Assume a company that normally required acceptance by its customers prior to recording revenue as earned, delivers a product to a customer near the end of the quarter. The company believes customer acceptance is assured but cannot obtain it prior to quarter-end. Recording the revenue would assure "making its numbers" for the quarter. Although formal acceptance is not obtained, the salesperson records the sale, fully intending to obtain written acceptance as soon as possible.

a. What are the revenue recognition requirements in this case?
b. What are the ethical issues relating to this sale?
c. Assume you are on the board of directors of this company. What safeguards can you put in place to ensure the company's revenue recognition policy is followed?

Ongoing Project

(This ongoing project began in Module 1 and continues through most of the book; even if previous segments were not completed, the requirements are still applicable to any business analysis.) Analysis of financial statements commonly includes operating income and its components as explained in this module.

1. *Revenue Recognition* Revenue is the largest item on the income statement, and we must assess it on a quantitative and qualitative basis.
   - Use horizontal analysis to identify any time trends.
   - Compare the horizontal analyses of the two companies.
   - Consider the current economic environment and the companies' competitive landscape. Given they operate in the same industry, you might expect similar revenue trends.
   - Read the management's discussion and analysis (MD&A) section of the 10-K to learn how the companies' senior managers explain revenue levels and changes.

   Our goal is to determine whether each company's revenue levels and changes seem appropriate and in line with external factors. *Additional analysis*: (a) If the company distinguishes among types of revenue on the income statement, use horizontal and vertical analyses to identify any changes in the product line mix or where sales are growing most quickly. Find the footnote on segment revenues and profits, and identify trends or significant changes. (b) Assess each company's revenue recognition policy by comparing it with the other and with those of some other close competitors. (c) Consider unearned revenue on the balance sheet. How big is it (common size), and is it fluctuating over time? (d) For companies that operate globally, determine the effect of foreign currency fluctuations on revenue. If these are substantial year after year, it might indicate that managers are not effectively hedging, and this would warrant additional investigation.
2. *Accounts Receivable* The following provides some guidance for analyzing a company's accounts receivable.
   - Are sales primarily on credit, or is a typical sale transacted in cash? Consider the industry and the companies' business model.
   - What is the relative size of accounts receivable? How has this changed over the recent three-year period?
   - Determine the accounts receivable balance relative to gross accounts receivable.
   - What did the company record for bad debt expense? Compute the common size amount.
   - Compute accounts receivable turnover and days sales outstanding for all three years reported on the income statement. One will need to obtain additional balance sheet information to be able to compute average balances for the denominator. Consider the current economic environment and the company's competitive landscape. Would one expect collection to have slowed down or sped up during the year?
   - Does the company have any large customers that increase its credit risk?

   For each point of analysis, compare across companies and over time. The goal is to determine whether each company's accounts receivable (levels and changes) seems appropriate and to gauge the quality of the receivables.
3. *Operating Expenses* Review and analyze the income statement items.
   - Prepare a common-sized income statement by dividing each item on the income statement by total revenues, net.
   - Compare the common-sized values for the three years presented in the income statement. What changes are there, if any? Are material changes explained in the MD&A? Do the explanations seem reasonable given the current economic environment?
   - Does the company engage in research and development activities? Quantify the amount in dollar terms and common size. Do you observe any patterns? Is the level of R&D expense consistent with peers and industry?
   - Does the company have discontinued operations? If so, how will this impact future operations?
4. *Accounting Quality* Evaluating accounting quality is more of an art than a science. The point is to form an overall opinion about the reliability of the numbers in the financial statements.
   - Does the company report non-GAAP earnings? What items do they exclude or include? Do the two companies report similar one-time items? Do the items seem reasonable, or do we detect some self-serving disclosures?
   - Consider the list in the Research Insight Box in the module, and use it to assess the quality of the two companies' reported numbers.
   - Use an online investment website to find key ratios for close competitors. Compare to our companies.
   - Find the consensus analysts' EPS forecast for the recent year-end. How did our companies fare? Were there any one-time items or unusual changes in any expenses that might have caused the company to just meet or beat the forecast? This could indicate earnings management.

Solutions to Review Problems

Review 5-1—Solution

Part I

1. Revenue is recognized for the sales price less anticipated returns.
2. The purchase price is apportioned between two components (performance obligations): the value of the copier and the value of the two-year service agreement. Revenue is immediately recognized on the first component. For the second component, revenue is deferred and recognized ratably over two years.
3. Revenue is recognized ratably over the year despite the fact that customers pay up front.
4. Revenue is recognized for the commission only, not the full sales price, because the company is acting as an agent for the other companies.
5. Product sales are recognized as revenue when the product is delivered to the franchisee. Accounting services are recognized as revenue on a monthly basis as the service is provided.

Part II

1. Revenue = $3,000,000 × ($500,000/$2,500,000) = $600,000.

   Gross profit = $600,000 − $500,000 = $100,000.
2. The cost of $500,000 exceeds the billing of $400,000, and the excess of $100,000 is reported as a current asset (such as costs in excess of billings or contracts in progress).

Review 5-2—Solution

1. "Additions" represents the amount of returns allowances recorded during fiscal 2015 for sales during that year.
2. "Returns, net" is the dollar value of actual returns offset by the value of the merchandise returned. The actual returns number is very close to the amount estimated. This indicates that Nordstrom is fairly accurate in its estimation process.
3. *a.* Sales returns/gross sales shows an increasing pattern. The ratio is up from 13.3% two years ago to 16.1% in the most current year. This could indicate that customer satisfaction with products is decreasing. However, Nordstrom's business model focuses on customer satisfaction, and the fact that its margin is very high (35% in 2015) puts the increase in perspective—it is not alarming, but should be monitored.

$ millions	2015	2014	2013
Net sales	$14,095	$13,110	$12,166
Returns during the year	2,710	2,097	1,868
Gross sales	$16,805	$15,207	$14,034
% Returned merchandise	16.1%	13.8%	13.3%

b. Nordstrom's allowance is adequate considering the following ratio of actual to estimate:

$ millions	2015	2014	2013
Actual returns during the year	$2,710	$2,097	$1,868
Estimated returns for the year	$2,720	$2,129	$1,880
Adequacy	99.6%	98.5%	99.4%

Review 5-3—Solution

Review 5-3—Solution

1. Some customers have very low credit scores and by allowing them to prepay for their wireless services, AT&T increases revenue without the risk of increasing the bad debt expense. Other customers may want a temporary phone while visiting the United States. Still other customers may not want a long-term contract because of uncertainty in their usage. For a variety of reasons, a prepaid wireless service makes economic sense for AT&T. Indeed, the company collected nearly $5 billion in revenue from this product line in 2015.

2. The amount of cash received from the customers is the amount added to the liability.

Advanced Billings and Customer Deposits ($ millions)	
Balance at 1/1/2015	$4,105
+ Cash prepayments by customers during the year	??
− Revenue recognized during the year	(4,662)
= Balance at 12/31/2015	$4,682

Cash prepayments by customers during the year = $4,682 + $4,662 − $4,105 = $5,239

3. The gift card is booked as a liability when sold, then AT&T would use historical analysis to age the gift cards. For example, the analysis might reveal that by the time a gift card is one year old, there is a 75% chance it will be redeemed, so AT&T would recognize 25% of the value of these cards as revenue (100% − 75%) leaving 75% of the value of the gift card in the liability account. When a gift card is two years old, analysis reveals there is only a 5% chance it will be redeemed, and AT&T would recognize another 70% of the revenue, leaving 5% of the value of the gift card still in the liability account.

Review 5-4—Solution

1. Using the rates provided, we can compute the change in the value of a peso during 2015 as 15.18% [(17.249549/14.975945) − 1 = 15.18%], which is close to the 13.1% AT&T claimed. The difference could be due to the exact date when AT&T measured the rates.

2.

(Revenue in millions)	1 $US = pesos	Monthly Revenue	Revenue in $US at January rate
31-Jan	14.975945		
28-Feb	14.948455	$177.45	$ 177.12
31-Mar	15.241323	177.45	180.59
30-Apr	15.388116	177.45	182.33
31-May	15.378000	177.45	182.21
30-Jun.	15.695152	177.45	185.97
31-Jul.	18.216009	177.45	215.84
31-Aug	16.734763	177.45	198.29
30-Sep	16.901119	177.45	200.26
31-Oct.	16.500190	177.45	195.51
30-Nov	16.601480	177.45	196.71
31-Dec	17.249549	177.45	204.39
		Total	2,119.22
		As reported	1,952.00
		Translation loss	$ 167.22

3. It cannot be determined from the information provided. If the Mexican wireless operations were profitable, then the net income when translated to $US would have been negatively impacted by the peso devaluation, and a translation loss would have reduced AT&T's consolidated net income. However, if the Mexican operations were unprofitable (a net loss for the year), then the weaker peso actually caused the loss to be smaller in $US.

4. AT&T does not hedge these exposures because the gains and losses on net income and foreign net assets are

4. AT&T does not hedge these exposures because the gains and losses on net income and foreign net assets are not realized. They are losses created by the accounting rules that require consolidation of all subsidiaries regardless of their location. These gains and losses will fluctuate over time and will only be realized when the foreign profits are repatriated to the United States.
5. These transactions have actual cash consequences to AT&T. The losses are realized when the liabilities are actually repaid in $US or the dividends are actually received by AT&T. Because they have real consequences, AT&T hedges the exposure.

Review 5-5—Solution

1. The company expects to collect $16,532 million, the amount reported on the balance sheet.
2. At December 31, 2015, AT&T's customers owed the company $17,236 million, computed as $16,532 million of accounts receivable, net + $704 of allowance for doubtful accounts. This is the gross accounts receivable.
3. The aging analysis shows that AT&T's allowance account should be $704 million.

$ millions	Accounts Receivable	% uncollectible	Allowance
Current	$12,650	0.50%	$ 63
1–30 days past due	2,785	5%	139
31–60 days past due	854	15%	128
61–90 days past due	589	25%	147
91–120 days past due	207	55%	114
Over 120 days past due	151	75%	113
Total	$17,236		$704

4. Bad debt expense is determined by reconciling the allowance account as follows ($ millions):

Balance January 1, 2015	$ 454
Write-offs during the year	(1,166)
Allowance available	(712)
Allowance required at December 31, 2015, per aging analysis	704
Bad debt expense	$1,416

5. The quality of AT&T's receivables has declined during the year. The proportion of allowance to gross accounts receivable has increased from 3.03% in 2014 [$454/($14,527 + $454)] to 4.08% in 2015 ($704 million/$17,236 million). Possible causes include the change in customer mix with the increase in sales in Mexico and Latin America and overall decline in credit quality in the United States, or more lax credit granting policies and/or collection processes.

Review 5-6—Solution

1. The following would **not** be included in selling, general and administrative expense.
   - Utilities for the research laboratories—this would be included in the research and development expense because it relates to those activities.
   - Wages for manufacturing employees—these are costs to manufacture goods and would be included in Cost of products sold.
   - Pharmaceuticals consumed during phase III trials for FDA approvals—seeking approvals is part of the research and development process, so these costs would be included on that income statement line item.
   - Depreciation on machines that package and label finished goods—this is part of the cost to get the inventory ready for sale and would be included in Cost of products sold.

2.

	2015	2014	2013
R&D expense in $ millions	$1,405	$1,345	$1,371
R&D expense as % of revenue	6.9%	6.6%	7.0%

Abbott's spending has grown slightly in 2015 compared to prior years. This is evident in both dollar and percentage terms. Abbott engages in basic pharmaceutical research and develops and brings to market successful compounds and drugs. R&D costs include salaries and overhead for R&D employees including scientists, lab workers directly involved with R&D as well as for personnel who indirectly assist and support R&D activities.

3. Abbott sold off or closed some operations during the current fiscal year. From the start of the year until the date of sale or closure, those operations earned a total of $65 million. That amount is reported on the line item labeled "Earnings from discontinued operations."

4. When Abbott discontinued some operations during the current fiscal year, the assets and liabilities were sold. Abbott received proceeds from the sale in excess of the value of the net assets on the balance sheet. That excess was $1,752 after tax.

5. Discontinued operations are segregated in the income statement because they represent a transitory item, which reflect transactions or events that affected the current period but will not recur. One plausible way to treat this is to use the earnings from continuing operations in all ratios and other analysis.

6. When a company does not own 100% of the voting stock of all of its subsidiaries, there are minority shareholders involved—they own the remaining stock. In that case, their proportionate share of the net income of the subsidiaries is shown as a separate line item on the income statement labeled "Noncontrolling interest." Such a line item is not shown on the Abbott Labs income statement, so we might conclude that the company owns 100% of the stock of all of the subsidiaries. Another explanation is the item is immaterial, so Abbott did not call it out specifically.

Review 5-7—Solution

1. Companies, including AT&T, publicly report non-GAAP information to communicate its view of the company's ongoing, persistent earnings. Skeptics of such pro forma numbers suggest companies are simply trying to present their financial results in the best possible light.

2. AT&T management does not seem to be adjusting income up so as to present their financial results in the best possible light. By deliberately reducing the bottom line non-GAAP number, the company seems to be forthcoming. The income statement and/or the footnotes will report the wireless gain, so AT&T might lose credibility if it did not include the item in the non-GAAP reconciliation.

Module 6