

# Chapter 3

## Operating Decisions and the Accounting System

### Learning Objectives

After studying this chapter, you should be able to:

- 3-1** Describe a typical business operating cycle and explain the necessity for the time period assumption.
- 3-2** Explain how business activities affect the elements of the income statement.
- 3-3** Explain the accrual basis of accounting and apply the revenue and expense recognition principles to measure income.
- 3-4** Apply transaction analysis to examine and record the effects of operating activities on the financial statements.
- 3-5** Prepare a classified income statement.
- 3-6** Compute and interpret the net profit margin ratio.
- 3-7** Identify operating transactions and demonstrate how they affect cash flows.

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## Learning Objective 3-1

**3-1** Describe a typical business operating cycle and explain the necessity for the time period assumption.

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## Understanding the Business 了解企业

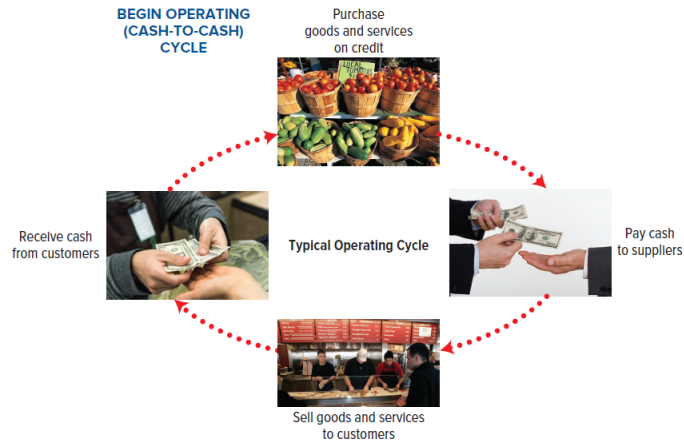
How do business activities affect the income statement?  
经营活动如何影响利润表

How are these activities recognized and measured?  
如何确认和计量这些经营活动

How are these activities reported on the income statement?  
这些经营活动如何在利润表中体现

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## The Operating Cycle<sub>1</sub> 经营周期



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## The Operating Cycle<sub>2</sub>

**Time period assumption:** The long life of a company can be reported in shorter time periods, such as months, quarters, and years.

会计分期假设：为满足决策者的信息需求，将公司较长的经营寿命人为划分为较短的时间段来报告财务报表（月度、季度、年度）

- Two issues arise when reporting periodic income:

- 1) Recognition issues: **When** should the effects of operating activities be recognized (recorded)? 何时记
- 2) Measurement issues: **What amounts** should be recognized? 记多少

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## Learning Objective 3-2

**3-2** Explain how business activities affect the elements of the income statement.

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## Elements of the Income Statement 利润表的要素

### Revenues

Increases in assets or settlements of liabilities from the major or central ongoing operations. 经营活动带来资产的增加或负债的减少

### Expenses

Decreases in assets or increases in liabilities from ongoing operations incurred to generate revenues. 经营活动带来资产的减少或者负债的增加

### Gains

Increases in assets or settlements of liabilities from peripheral transactions. 非经营活动带来的资产的增加或负债的减少

### Losses

Decreases in assets or increases in liabilities from peripheral transactions. 非经营活动带来资产的减少或者负债的增加

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# 利润表的要素

} 经营活动（主营业务）

} 非经营活动（非主营业务）

非经营活动，也可能具有连续性和日常性

会原基本不会涉及非经常项目/非连续性经营活动  
(extraordinary item/  
discontinuing operations)

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## Exhibit 3.1 Chipotle Mexican Grill's Income Statement

*\*The information has been adapted from actual statements and simplified for this chapter.*

Operating activities  
(central focus of business)

Peripheral activities  
(not central focus of business)

CHIPOTLE MEXICAN GRILL, INC. Consolidated Statement of Income* For the Year ended December 31, 2017 (in millions of dollars, except per share data)	
Restaurant sales revenue	\$4,477
Restaurant operating expenses:	
Supplies expense	1,536
Wages expense	1,206
Rent expense	327
Insurance expense	143
Utilities expense	85
Repairs expense	51
Other operating expenses	373
General and administrative expenses:	
Training expense	263
Advertising expense	46
Depreciation expense	163
Loss on disposal of assets	13
Total operating expenses	4,206
Income from operations	271
Other items:	
Interest revenue	6
Interest expense	(1)
Income before income taxes	276
Income tax expense	100
Net income	\$ 176
Earnings per share	\$6.19

Includes salaries expense

Includes pre-opening costs

Also called Provision for Income Taxes

= \$176 million Net Income ÷ about 28.4 million weighted average number of common stock shares outstanding (per 2017 annual report)

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截至 2017年12月31日的年度利润表			
(单位: 百万美元)			
经营活动	餐厅销售收入	\$	4,477
	餐厅经营费用:		
	食材费用		1,536
	工资费用		1,206
	租金费用		327
	保险费用		143
	水电煤气费		85
	修理费		51
	其他经营费用		373
	销售管理费用:		
	培训费		263
	广告费		46
	折旧费用		163
	处置资产损失		13
	经营费用合计		4,206
非经营活动	营业利润		271
	其他项目:		
	利息收入		6
	利息费用		(1)
	所得税前利润		276
	所得税费用		100
	净利润	\$	176
	每股收益	\$	6.19

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Operating Revenues营业收入

Operations of the business: the sale of goods or rendering of services as the central focus of the business主业

- e.g., When Chipotle sells burritos, it has **earned** revenue.

Revenues

- Any increases in assets or settlements of liabilities from the major or central ongoing operations of the business

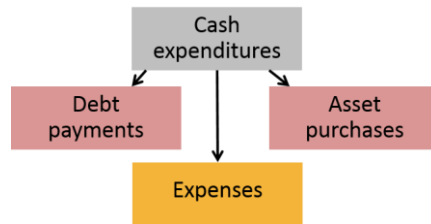
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## Operating Expenses 营业费用

**Operating expenses are outflows** or the using up of assets or increases in liabilities from ongoing operations **incurred to generate revenues** during the period. 为创造营业收入而耗费的资产或者增加的负债

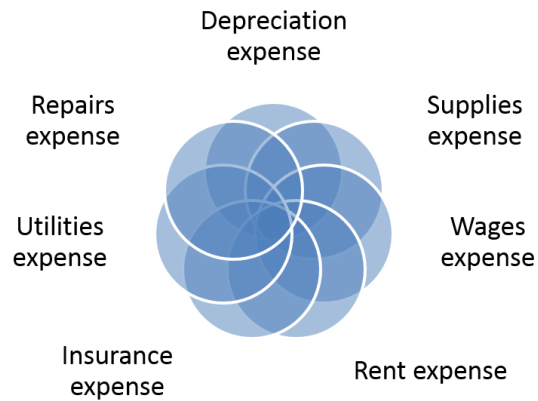
Don't confuse expenditures and expenses! An **expenditure** 支出 is an **outflow of cash** 现金支出 for any purpose, whether to buy equipment, pay off a bank loan, or pay employees their wages.

Therefore, **not all cash expenditures are expenses!**



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## Examples of Chipotle's Operating Expenses



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## Other Income Statement Items 其他利润表项目

Interest or Dividend Revenue 利息/红利收入

Interest Expense 利息费用

Gains (or Losses) on Sale of Investments 投资损益

Income Tax Expense 所得税费用

- Corporations are required to disclose earnings per share (EPS) on the income statement or in the notes to the financial statements.

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## DATA ANALYTICS

### Using Big Data in the Restaurant Industry to Increase Revenues and Decrease Costs

- Thanks to significant improvements in computing power, storage space, access to the cloud, and new software, **businesses can collect and analyze incredible amounts and types of data** to enhance revenues and reduce costs.
- Data sources include **point-of-sale terminals and information systems** related to accounting, inventory, scheduling, marketing, and more.
- **McDonald's** uses data to predict customer demand in drive-thru sales.
- **Wendy's** analyzes big data to identify the most profitable new restaurant locations.
- **Pizza Hut** uses software to track customer eye movements on digital, interactive menus in some of its restaurants to discover what customers subconsciously want.

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## How Are Operating Activities Recognized and Measured? 如何确认计量经营活动

Cash Basis Accounting 收付实现制(现金制): Record revenues when cash is received and expenses when cash is paid.

Revenue = cash received  
Less: Expenses = cash payments  
 Net Income (cash basis)

The cash basis may be adequate for organizations that do not need to report to external users, such as small businesses.

Cash basis accounting may lead to an incorrect interpretation of future company performance.

**GAAP does not allow the cash basis of accounting. 会计准则不允许现金制!**

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## Cash Basis Accounting

Cash Basis Income Statements	Year 1	Year 2	Year 3	Total
Sales on credit	<u>\$60,000</u>	<u>\$60,000</u>	<u>\$60,000</u>	<u>\$180,000</u>
Cash receipts from customers	<u>\$20,000</u>	\$70,000	\$90,000	\$180,000
Cash disbursements for:				
Salaries to employees	(30,000)	(30,000)	(30,000)	(90,000)
Insurance for 3 years	(12,000)	(0)	(0)	(12,000)
Supplies	(3,000)	(7,000)	(5,000)	(15,000)
<b>Net operating cash flows</b>	<b><u>\$(25,000)</u></b>	<b><u>\$33,000</u></b>	<b><u>\$55,000</u></b>	<b><u>\$63,000</u></b>

Using cash basis accounting may lead to an incorrect interpretation of future company performance.

*Simply looking at the first year, investors and creditors might interpret the negative cash flows as a problem with the company's ability to generate cash flows in the future.*

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## Learning Objective 3-3

**3-3** Explain the accrual basis of accounting and apply the revenue and expense recognition principles to measure income.

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## How Are Operating Activities Recognized and Measured?

### Accrual Basis Accounting 权责发生制(应计制)

Revenues and expenses are recognized when the transaction that causes them occurs, *not necessarily when cash is paid or received.*  
收入和费用应该在交易发生时确认，而不一定在收到或支付现金时。

Revenues are recognized when they are **earned** and expenses when they are **incurred** to generate revenues.

收入在赚取时确认，费用在发生时确认

**Accrual Basis Accounting** is required by:

**Generally Acceptable Accounting Principles (GAAP)**

一般公认会计准则

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### Exercise 3-1

Sleep Desk Pillow Company sells specialty pillows and accessories to customers. Its fiscal year ends on December 31. The following transactions occurred in the current year:

- a. Purchased \$280,000 of new pillow inventory; paid \$95,000 in cash and owed the rest on account.
- b. Paid employees \$183,500 in wages for work during the year; an additional \$4,700 for the current year's wages will be paid in January of the next year.
- c. Sold pillows to customers for \$765,000; received \$520,000 in cash and customers owed the rest on account. The cost of the pillow inventory to Sleep Desk Pillow was \$490,000.
- d. Paid \$18,400 cash for utilities for the year.
- e. Received \$65,000 from customers as deposits on orders of new pillows to be sold to the customers in January of the next year.
- f. Received a \$2,500 utilities bill for December of the current year that will be paid in January of the next year.

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### Exercise 3-1 journal entries

a. Inventory	280000	
Cash		95000
Accounts Payable		185000
b. Wages expense	188200	
Cash		183500
Wages Payable		4700
c. Cash	520000	
Accounts receivable	245000	
Sales revenue		765000
COGS	490000	
Inventory		490000
d. Utility expense	18400	
Cash		18400
e. Cash	65000	
Unearned revenue		65000
f. Utility expenses	2500	
Utility payable		2500

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Required:

1. Complete the following statements:

Cash Basis Income Statement	Accrual Basis Income Statement
Revenues: Cash sales Customer deposits	Revenues: Sales to customers
Expenses: Inventory purchases Wages paid Utilities paid	Expenses: Cost of sales Wages expense Utilities expense
Net income: _____	Net income: _____

2. Which basis of accounting (cash or accrual) provides more useful information to investors, creditors, and other users? Why?

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- b. Bed paid \$928,000 for wages over the year, and \$14,700 for the  
d. Bed paid \$49,000 in utilities for the year, and the next Sleep Desk Pillow was \$490,000.

1. Complete the following statements:

Cash Basis Income Statement	Accrual Basis Income Statement
Revenues: Cash Sales \$520,000 Customer deposits 65,000	Revenues: Sales to customers \$765,000
Expenses: Inventory purchases 95,000 Wages paid 183,500 Utilities paid 18,400	Expenses: Cost of sales 490,000 Wages expense 188,200 Utilities expense 28,900
Net income: <u>\$288,100</u>	Net income: <u>\$ 65,900</u>

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2. Which basis of accounting (cash or accrual) provides more useful information to investors, creditors, and other users? Why?

- **Accrual basis**

- ✓ Revenues and expenses are recognized when the transaction occurs, not necessarily when cash is received or paid.
- ✓ Revenues are recognized when they are earned.
- ✓ Expenses are recognized when they are incurred to generate revenues.
- ✓ Therefore, generally accepted accounting principles require accrual basis accounting for financial reporting.
- ✓ More useful to external users.

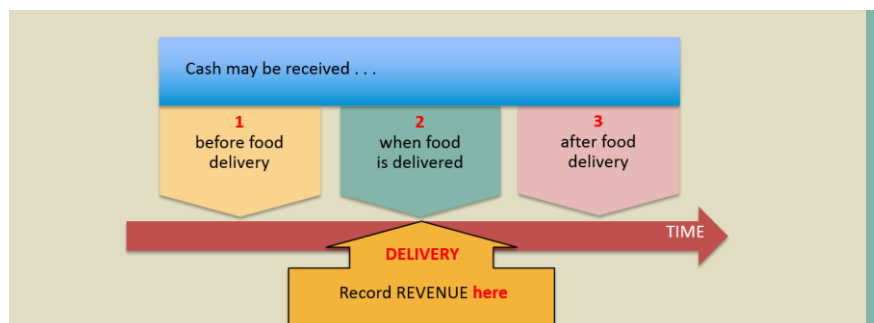
- **Cash basis**

- ❖ Normally postpone or accelerate recognition of revenues and expenses long before or after goods and services are produced and delivered (when cash is received or paid).
- ❖ Do not reflect all assets or liabilities of a company on a particular date.
- ❖ Not very useful to external users.

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## Exhibit 3.2

### Revenue Recognition Principle 收入确认原则



A company must recognize revenue:

1. When the company transfers promised goods or services to customers. 商品已经发出或者服务已经提供
2. In the amount it expects to be entitled to receive. 款项的收回有合理保证

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Revenue Recognition Principle<sub>1</sub>

(1) If cash is received **before** the company delivers goods or services, the liability account **UNEARNED REVENUE** 预收收入 is recorded.

On receipt of a \$100 cash:	Debit	Credit
Cash (+A)	100	
Unearned Revenue (+L)		100

On delivery of ordered food:	Debit	Credit
Unearned Revenue (-L)	100	
Restaurant Sales Revenue (+R, +SE)		100

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Revenue Recognition Principle<sub>2</sub>

(2) When cash is received **in the same period** as the goods or services are delivered.

On delivery of ordered food for \$12 cash:	Debit	Credit
Cash (+A)	12	
Restaurant Sales Revenue (+R, +SE)		12

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Revenue Recognition Principle<sub>3</sub>

(3) If cash is received *after* the company delivers goods or services, an asset *ACCOUNTS RECEIVABLE* is recorded.

On delivery of ordered food for \$50 on account:	Debit	Credit
Accounts Receivable (+A)	50	
Restaurant Sales Revenue (+R, +SE)		50

On receipt of cash after delivery:	Debit	Credit
Cash (+A)	50	
Accounts Receivable (-A)		50

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Revenue Recognition for More Complex Customer Contracts

FINANCIAL ANALYSIS

The FASB and IASB issued a joint revenue recognition accounting standard effective for 2018 financial statements.



The standard specifies five steps to recognizing revenue:

- Identify the contract between the company and the customer.识别与客户间存在合同
- Identify the performance obligations (promised goods and services).识别合同中约定的履约责任
- Determine the transaction price.确定交易对价
- Allocate the transaction price to the performance obligations.将交易对价分摊至相对应的履约责任
- Recognize revenue when each performance obligation is satisfied (or over time if a service is provided over time).在企业完成履约责任时确认收入

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## Exercise 3-2

The following transactions occurred in October, Year1:

- a. A popular off road magazine company receives a total of \$23,960 today from subscribers. The subscriptions begin in the next fiscal year. Answer from the magazine company's standpoint.
- b. On October 1, Year 1, a bank lends \$2,400 to a company; the note principal and \$288 ( $\$2,400 \times 12$  percent) annual interest are due in one year. Answer from the bank's standpoint.
- c. Acura, Inc. sells a truck with a list, or "sticker," price of \$40,100 for \$36,100 cash.
- d. Belk's department store orders 1,000 men's shirts for \$30 each for future delivery from Ralph Lauren Corporation. The terms require payment in full within 30 days of delivery. Answer from Ralph Lauren's standpoint.
- e. Ralph Lauren Corporation completes production of the shirts described in (d) and delivers the order. Answer from Ralph Lauren's standpoint.
- f. Ralph Lauren Corporation receives payment from Belk's for the events described in (d) and (e). Answer from Ralph Lauren's standpoint.
- g. A customer purchases a ticket from Northwest for \$1,220 cash to travel the following January. Answer from Northwest's standpoint.

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- h. General Motors issues \$40 million in new common stock.
- i. University of North Carolina receives \$36,600,000 cash for 160,000 five-game season football tickets.
- j. University of North Carolina plays the first football game referred to in (i).
- k. Home Improvement signs a contract with a customer for the construction of a new \$3,000,000 warehouse. At the signing, Home Improvement receives a check for \$300,000 as a deposit on the future construction. Answer from Home Improvement's standpoint.
- l. A customer orders and receives 20 personal computers from Apple; the customer promises to pay \$36,800 within three months. Answer from Apple's standpoint.
- m. JC Penneys, a retail store, sells a \$200 lamp to a customer who charges the sale on his store credit card. Answer from JC Penneys's standpoint.

**Required:**

For each of the transactions, if revenue is to be recognized in October, indicate the revenue account title and amount. If revenue is not to be recognized in October, explain why.

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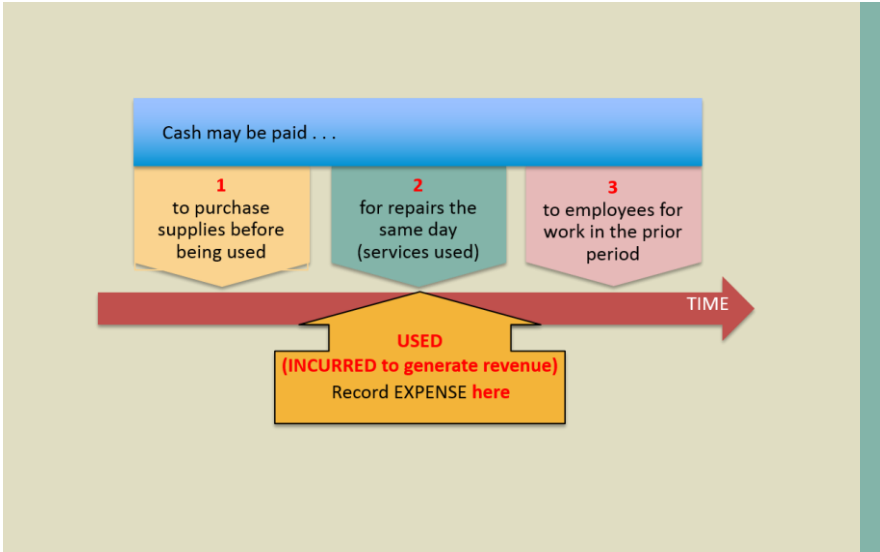
Activity	Revenue Account Title	Amount of Revenue Recognized in October
a.	None	No revenue earned in October; earnings process is not yet complete.
b.	Interest Revenue	\$24 ( $\$ 2,400 \times 12\% \times 1 \text{ month}/12 \text{ months}$ )
c.	Sales Revenue	\$36,100
d.	None	No transaction has occurred; exchange of promises only.
e.	Sales Revenue	\$30,000 (1,000 shirts $\times$ \$ 30 per shirt); revenue earned when goods are delivered.
f.	None	Payment related to revenue recorded previously in (e) above.
g.	None	No revenue earned in October; earnings process is not yet complete.
h.	None	No revenue is earned; the issuance of stock is a financing activity.
i.	None	No revenue earned in October; earnings process is not yet complete.

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Activity	Revenue Account Title	Amount of Revenue Recognized in October
j.	Ticket Sales Revenue	\$7,320,000 ( $\$ 36,600,000 \div 5 \text{ games}$ )
k.	None	No revenue earned in October; earnings process is not yet complete.
l.	Sales Revenue	\$36,800
m.	Sales Revenue	\$200

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Exhibit 3.3 Expense Recognition Principle费用确认原则 (also called matching principle配比原则)



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Expense Recognition Principle<sub>1</sub>

(1) Cash is paid before the expense is incurred to generate revenue.

On payment of \$200 cash for supplies:	Debit	Credit
Supplies (+A)	200	
Cash (-A)		200

On subsequent use of half of the supplies:	Debit	Credit
Supplies Expense (+E, -SE)	100	
Supplies (-A)		100

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Expense Recognition Principle<sub>2</sub>

(2) Cash is paid in the same period as the expense is incurred to generate revenue.

On payment of \$275 cash for using repair service	Debit	Credit
Repairs Expense (+E, -SE)	275	
Cash (-A)		275

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Expense Recognition Principle<sub>3</sub>

(3) Cash is paid after the expense is incurred to generate revenue.

On the use of \$400 in employees' services during the period:	Debit	Credit
Wages Expense (+E, -SE)	400	
Wages Payable (+L)		400

On payment of cash after using employees:	Debit	Credit
Wages Payable (-L)	400	
Cash (-A)		400

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### Exercise 3-3

The following transactions occurred in February, Year 1:

- a. The Nabisco Companies use \$3,000 worth of electricity and natural gas in their headquarters building for which it has not yet been billed.
- b. At the beginning of February, Home Improvement Company pays \$900 for magazine advertising to run in monthly publications each of the first three months of the year.
- c. Apple pays its computer service technicians \$400,000 in salaries for the two weeks ended February 7. Answer from Apple's standpoint.
- d. The University of North Carolina orders 120,000 season football tickets from its printer and pays \$15,220 in advance for the custom printing. The first game will be played in September. Answer from the university's standpoint.
- e. The campus bookstore receives 1,000 accounting texts at a cost of \$90 each. The terms indicate that payment is due within 30 days of delivery.
- f. During the last week of February, the campus bookstore sold 500 accounting texts received in (e) at a sales price of \$140 each.
- g. General Motors, Inc., pays its salespersons \$14,400 in commissions related to December automobile sales. Answer from General Motors standpoint.

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- h. On February 28, General Motors, Inc., determines that it will pay its salespersons \$15,500 in commissions related to February sales. The payment will be made in early March. Answer from General Motor's standpoint.
- i. A new grill is purchased and installed at a Burger King restaurant at the end of the day on February 28; a \$13,250 cash payment is made on that day.
- j. North Point Mall had janitorial supplies costing \$5,000 in storage. An additional \$4,000 worth of supplies was purchased during February. At the end of February, \$1,600 worth of janitorial supplies remained in storage.
- k. An Arizona State University employee works eight hours, at \$12 per hour, on February 28; however, payday is not until March 3. Answer from the university's point of view.
- l. Fong Company paid \$4,800 for a fire insurance policy on February 1. The policy covers 24 months beginning on February 1. Answer from Fong's point of view.
- m. Benton Incorporated has its delivery van repaired in February for \$450 and charges the amount on account.
- n. Farm Implement Company, a farm equipment company, receives its phone bill at the end of February for \$175 for February calls. The bill has not been paid to date.
- o. Kenworth Company receives and pays in February a \$2,500 invoice (bill) from a consulting firm for services received in February.
- p. Lynx Technology Company pays a \$675 invoice from a consulting firm for services received and recorded in December.

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q. Tommy Bahama Corporation completes production of 500 men’s shirts ordered by Macy’s department stores at a cost of \$15 each and delivers the order. Answer from Tommy Bahama’s standpoint.

**Required:**

For each of the transactions, if an expense is to be recognized in February, indicate the expense account title and amount. If an expense is not to be recognized in February, indicate why.

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Activity	Expense Account Affected	Amount of Expense Incurred in February
a.	Utilities Expense	\$3,000
b.	Advertising Expense	\$300 (\$900 × 1 month/3 months) incurred in February. The remainder is a prepaid expense (A) that is not incurred until March and April.
c.	Salary Expense	\$200,000 incurred in February. The remaining half was incurred in January.
d.	None	Expense will be recorded when the related revenue has been earned.
e.	None	Expense will be recorded in the future when the related revenue has been earned.
f.	Cost of Goods Sold	\$450,000 (5,000 books × \$90 per book)
g.	None	December expense paid in February.

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Activity	Expense Account Affected	Amount of Expense Incurred in February
h.	Commission Expense	\$15,500
i.	None	Will be recorded as depreciation over the equipment's useful life
j.	Supplies Expense	\$7,400 (\$5,000 + \$4,000 – \$1,600)
k.	Wages Expense	\$96 (8 hours × \$12 per hour)
l.	Insurance Expense	\$200 (\$ 4,800 ÷ 24 months)
m.	Repairs Expense	\$450
n.	Utilities Expense	\$175
o.	Consulting Expense	\$2,500
p.	None	December expense paid in February.
q.	Cost of Goods Sold	\$7,500 (500 shirts × \$15 per shirt)

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Management’s Incentives to Violate Accounting Rules

A QUESTION OF ETHICS

The CEO	The Fraud	Conviction/Plea	The Outcome
Joseph J. Erves, 53 MARTA (Atlanta’s public transportation operator)	Falsified maintenance expense invoices that funneled payments to his personal bank account.	Convicted, January 2018	Sentenced to 2 years, 9 months
Oliver Schmidt, 48 Volkswagen Group	Installed software on diesel cars to cheat emissions performance tests in the U.S.	Pleaded guilty to the conspiracy, December 2017	Sentenced to 7 years
Holli Dawn Coulman, 44 Hewlett Packard	As executive assistant to HP senior vice president, used corporate credit cards to support her lavish lifestyle and other personal expenses.	Pleaded guilty to falsifying employee expenses, August 2015	Sentenced to 20 months; pay nearly \$1 million in restitution
Elaine Martin, 67 MarCon, Inc.	Failed to record sales of used materials.	Convicted, February 2014	Sentenced to 7 years
Annette Bongiorno, 62, and Joann Crupi, 49 Madoff Investment Securities	Recorded trades of securities in the wrong accounting period as part of a Ponzi scheme.	Convicted, December 2014	Sentenced to 6 years each; forfeit a total of \$188.9 billion
Bernard Madoff, 71 Madoff Investment Securities	Scammed \$50 billion from investors in a Ponzi scheme (in which investors receive “returns” from money paid by subsequent investors).	Confessed, December 2008	Sentenced to 150 years
Bernie Ebbers, 65 Worldcom	Recorded \$11 billion in operating expenses as if they were assets.	Convicted, July 2005	Sentenced to 25 years
Barry Minkow ,* 21 ZZZZ Best	Made up customers and sales to show profits when, in reality, the company was a sham.	Convicted, December 1988	Sentenced to 25 years

\*After early release in 1995, Minkow pursued additional fraudulent activities and is in federal prison until 2021.

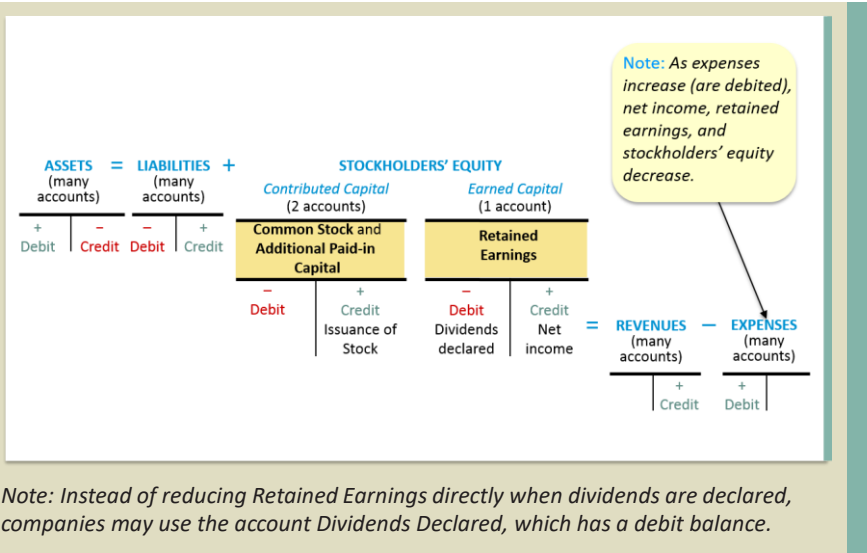
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# Learning Objective 3-4

**3-4** Apply transaction analysis to examine and record the effects of operating activities on the financial statements.

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## Exhibit 3.4 Expanded Transaction Analysis Model



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## In summary:

Understand how revenues and expenses impact the balance sheet and income statement:

### REVENUES

- Increase net income and stockholders' equity
- ↑ with Credits
- Accounts have credit balances

### EXPENSES

- Decrease net income and stockholders' equity
- ↑ with Debits
- Accounts have debit balances

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## Exhibit 3.5

### Transaction Analysis Steps

**Step 1: Ask** → Was a revenue earned by delivering goods or services?

If so, credit the revenue account and debit the appropriate accounts for what was received.

or **Ask** → Was an expense incurred to generate a revenue in the current period?

If so, debit the expense account and credit the appropriate accounts for what was given.

or **Ask** → If no revenue was earned or expense incurred, what was received and given?

- **Identify the accounts affected by title** (e.g., Cash and Notes Payable). Remember: *Make sure that at least two accounts change.*
- **Classify them by type of account:** asset (A), liability (L), stockholders' equity (SE), revenue/gain (R), or expense/loss (E).
- **Determine the direction of the effect.** Did the account increase (+) or decrease (-)?

**Step 2: Verify** → Is the accounting equation in balance? ( $A = L + SE$ )

3-48



Exhibit 3.6  
Chipotle Mexican Grill's Trial Balance

CHIPOTLE MEXICAN GRILL					
Trial Balance					
(based on investing and financing transactions during the first quarter ended March 31, 2018)					
(in millions)	Debit	Credit	(in millions)	Debit	Credit
Cash	389		Accounts payable		82
Short-term investments	333		Unearned revenue		64
Accounts receivable	49		Dividends payable		2
Supplies	20		Income taxes payable		18
Prepaid expenses	51		Wages payable		83
Land	21		Utilities payable		77
Buildings	1,711		Notes payable (current)		0
Equipment	637		Notes payable (noncurrent)		80
Accumulated depreciation		979	Other liabilities		279
Long-term investments	35		Common stock		2
Intangible assets	81		Additional paid-in capital		1,604
			Treasury stock	2,334	
			Retained earnings		2,391
			<b>Total</b>	<b>5,661</b>	<b>5,661</b>

3-49

Analyzing Chipotle's Transactions <sub>1</sub>

(1) Chipotle purchased food, beverage, and packaging supplies costing \$370, paying \$290 in cash and owing the rest on account.

	Debit	Credit
(1) Supplies (+A)	370	
Cash (-A)		290
Accounts payable (+L)		80

Assets		=	Liabilities		+	Stockholders' Equity	
Supplies	+370		Accounts payable	+80			
Cash	-290						
+ Cash (A) -			+ Supplies (A) -			- Accounts Payable (L) +	
Bal.	389		Bal.	20		82	Bal.
	290	(1)	(1)	370		80	(1)

3-50

Analyzing Chipotle's Transactions
2

(2) At the beginning of January, Chipotle paid \$80 cash for rent, insurance, and advertising to be used in the future (all prepaid expenses).

	Debit	Credit
(2) Prepaid expenses (+A)	80	
Cash (-A)		80

Assets				=	Liabilities		+	Stockholders' Equity	
Prepaid expenses +80									
Cash -80									
+ Cash (A) -					+ Prepaid Expenses (A) +				
Bal.	389				Bal.	51			
		290	(1)		(2)	80			
		80	(2)						

3-51

Analyzing Chipotle's Transactions
3

(3) During the first quarter, Chipotle sold food and beverages to customers for \$1,228; \$44 was sold to universities on account (to be paid by the universities next quarter) and the rest was received in cash in the stores.

**NOTE:** To measure revenues and expenses in a period, these accounts begin with a \$0 balance; notice they are not listed on the trial balance in Exhibit 3.6 because they have no balances yet.

	Debit	Credit
(3) Cash (+A)	1,184	
Accounts receivable (+A)	44	
Restaurant sales revenue (+R, +SE))		1,228

Assets				=	Liabilities		+	Stockholders' Equity	
Cash +1,184								Restaurant sales revenue (+R) +1,228	
Accounts receivable +44									
+ Cash (A) -					+ Accounts Receivable (A) -			- Restaurant Sales Revenue (R) +	
Bal.	389				Bal.	49		0	Bal.
(3)	1,184	290	(1)		(3)	44		1,228	(3)
		80	(2)						

3-52

Analizing Chipotle’s Transactions<sub>4</sub>

(4) Chipotle paid \$41 for management training expenses.

	Debit	Credit
(4) Training Expense (+E, -SE)	41	
Cash (-A)		41

Assets		=	Liabilities	+	Stockholders' Equity
Cash	-41				Training expense (+E)
					-41

+ Cash (A) -				+ Training Expense (E) -			
Bal.	389			Bal.	0		
(3)	1,184	290	(1)	(4)	41		
		80	(2)				
		41	(4)				

3-53

Analizing Chipotle’s Transactions<sub>5</sub>

(5) Chipotle paid employees \$177 for work this quarter and \$83 for work last quarter (recorded last quarter as Wages Expense and Wages Payable).

	Debit	Credit
(5) Wages Expense (+E, -SE)	177	
Wages Payable (-L)	83	
Cash (-A)		260

Assets		=	Liabilities	+	Stockholders' Equity
Cash	-260		Wages payable	-83	Wages expense (+E)
					-177

+ Cash (A) -				- Wages Payable (L) +				+ Wages Expense (E) -			
Bal.	389				83			Bal.	0		
(3)	1,184	290	(1)	(5)	83			(5)	177		
		80	(2)								
		41	(4)								
		260	(5)								

3-54

Analyzing Chipotle's Transactions 6

(6) Chipotle sold equipment costing \$9 for \$5 cash, resulting in a loss of \$4 (ignore any accumulated depreciation on the equipment, which will be explained in more depth in Chapter 8).

	Debit	Credit
(6) Cash (+A)	5	
Loss on disposal of assets (+E, -SE)	4	
Equipment (-A)		9

Assets	=	Liabilities	+	Stockholders' Equity
Cash				Loss on disposal of assets (+E)
Equipment				-4

+ Cash (A) -				+ Equipment -				Loss on Disposal + of Assets (E) -			
Bal.	389			Bal.	637			Bal.	0		
(3)	1,184	290	(1)					(6)	4		
(6)	5	80	(2)	9		(6)					
		41	(4)								
		260	(5)								

3-55

Analyzing Chipotle's Transactions 7

(7) Chipotle received \$39 cash from customers paying on their accounts.

	Debit	Credit
(7) Cash (+A)	39	
Accounts receivable (-A)		39

Assets	=	Liabilities	+	Stockholders' Equity
Cash				
Accounts receivable				

+ Cash (A) -				+ Accounts Receivable (A) -			
Bal.	389			Bal.	49		
(3)	1,184	290	(1)	(3)	44	39	(7)
(6)	5	80	(2)				
(7)	39	41	(4)				
		260	(5)				

3-56

Analyzing Chipotle’s Transactions 8

(8) During the quarter, Chipotle paid suppliers \$74 on accounts payable, paid \$72 on utilities payable from last year, and paid \$18 in income taxes payable from last year.

	Debit	Credit
(8) Accounts payable (–L)	74	
Utilities payable (–L)	72	
Income taxes payable (–L)	18	
Cash		164

Assets

=

Liabilities

+

Stockholders' Equity

Cash

– 164

Accounts payable

– 74

Utilities payable

– 72

Income taxes payable

– 18

+ Cash (A) –

– Accounts Payable (L) +

Bal.

389

290

(1)

(8)

74

82

Bal.

(1)

(3)

1,184

(6)

5

(7)

39

260

164

(8)

(8)

18

18

Bal.

(8)

72

77

Bal.

– Income Taxes Payable (L) +

– Utilities Payable (L) +

3-57

Analyzing Chipotle’s Transactions 9

(9) Chipotle paid \$75 for utilities used during the quarter and paid \$19 for repairs of its buildings and equipment during the quarter.

	Debit	Credit
(9) Utilities expense (+E, –SE)	75	
Repairs Expense (+E, –SE)	19	
Cash		94

Assets

=

Liabilities

+

Stockholders' Equity

Cash

– 94

Utilities expense (+E)

– 75

Repairs expense (+E)

– 19

+ Cash (A) –

+ Utilities Expense (E) –

+ Repairs Expense (E) –

Bal.

389

290

(1)

(9)

75

Bal.

0

(3)

1,184

(6)

5

(7)

39

260

164

94

(8)

(9)

(9)

19

3-58

Analyzing Chipotle’s Transactions
10

(10) Chipotle received \$1 cash as interest revenue earned during the quarter.

	Debit	Credit
(10) Cash (+A)	1	
Interest revenue (+R, +SE)		1

Assets	=	Liabilities	+	Stockholders' Equity
Cash	+ 1			Interest revenue (+R)
				+ 1

+ Cash (A) –				– Interest Revenue (R) +			
Bal.	389				0	Bal.	
(3)	1,184	290	(1)		1	(10)	
(6)	5	80	(2)				
(7)	39	41	(4)				
(10)	1	260	(5)				
		164	(8)				
		94	(9)				

3-59

Analyzing Chipotle’s Transactions
11

(11) During the quarter, Chipotle sold gift cards to customers for \$42 in cash (expected to be redeemed for food next quarter).

	Debit	Credit
(11) Cash (+A)	42	
Unearned revenue		42

Assets	=	Liabilities	+	Stockholders' Equity
Cash	+ 42	Unearned revenue	+ 42	

+ Cash (A) –				– Unearned Revenue (L) +			
Bal.	389				64	Bal.	
(3)	1,184	290	(1)		42	(11)	
(6)	5	80	(2)				
(7)	39	41	(4)				
(10)	1	260	(5)				
(11)	42	164	(8)				
		94	(9)				

3-60

Chipotle’s Balance Sheet Accounts

+ Cash (A) –			+ Short-Term Investments (A) –			+ Accounts Receivable (A) –			+ Supplies (A) –		
Bal.	389		Bal.	333		Bal.	49		Bal.	20	
(3)	1,184	290 (1)		333		(3)	44	39 (7)	(1)	370	
(6)	5	80 (2)					54			390	
(7)	39	41 (4)									
(10)	1	260 (5)									
(11)	42	164 (8)									
		94 (9)									
	731			131			21			1,711	
+ Equipment (A) –			– Accumulated Depreciation +			+ Long-Term Investments (A) –			+ Buildings (A) –		
Bal.	637			979	Bal.	Bal.	35		Bal.	81	
	9	(6)									
	628			979			35			81	
– Accounts Payable (L) +			– Unearned Revenue (L) +			– Dividends Payable (L) +			– Wages Payable (L) +		
	82	Bal.		64	Bal.		2	Bal.		83	Bal.
(8)	74	80 (1)		42	(11)				(5)	83	
	88			106			2			0	
– Utilities Payable (L) +			– Income Taxes Payable (L) +			– Notes Payable (noncurrent) (L) +			– Other Liabilities (L) +		
	77	Bal.		18	Bal.		80	Bal.		279	Bal.
(8)	72		(8)	18						279	
	5			0			80			279	
– Common Stock (SE) +			– Additional Paid-in Capital (SE) +			+ Treasury Stock –			– Retained Earnings (SE) +		
	2	Bal.		1,604	Bal.	Bal.	2,334			2,391	Bal.
	2			1,604			2,334			2,391	

3-61

Chipotle’s Income Statement Accounts

– Restaurant Sales Revenue (R) +			– Interest Revenue (R) +		
	0	Bal.		0	Bal.
	1,228	(3)		1	(10)
	1,228			1	
+ Wages Expense (E) –			+ Utilities Expense (E) –		
Bal.	0		Bal.	0	
(5)	177		(9)	75	
	177			75	
+ Loss on Disposal of Assets (E) –			+ Repairs Expense (E) –		
Bal.	0		Bal.	0	
(6)	4		(9)	19	
	4			19	
			+ Training Expense (E) –		
Bal.	0		Bal.	0	
(6)	4		(4)	41	
	4			41	

3-62

### Exercise 3-4

At January 1 (beginning of its fiscal year), Takeover, Inc., a financial services consulting firm, reported the following account balances (in thousands, except for par and market value per share):

Cash	2,850	Accounts payable	315
Short-term investments	615	Unearned revenue	1,980
Accounts receivable	5,355	Salaries payable	1,305
Supplies	225	Short-term note payable	1,170
Prepaid expenses	7,080	Common stock (\$1 par value)	75
Office equipment	2,295	Additional paid-in capital	9,840
Accumulated depreciation—office equipment*	-720	Retained earnings	3,015

Required:

- Prepare journal entries for the following transactions for the current year. Use the balance sheet account titles above and the revenue or expense account titles mentioned in requirement (2):
  - Received \$14,250 cash for consulting services rendered.
  - Issued 10 additional shares of common stock at a market price of \$120 per share.
  - Purchased \$960 of office equipment, paying 25 percent in cash and owing the rest on a short-term note.
  - Received \$1,335 from clients for consulting services to be performed in the next year.
  - Bought \$705 of supplies on account.

3-63

- Prepare journal entries for the following transactions for the current year. Use the balance sheet account titles above and the revenue or expense account titles mentioned in requirement (2):
  - Incurred and paid \$2,700 in utilities for the current year.
  - Consulted for clients in the current year for fees totaling \$2,430, due from clients in the next year.
  - Received \$4,470 from clients paying on their accounts.
  - Incurred \$9,315 in salaries in the current year, paying \$7,950 and owing the rest (to be paid next year).
  - Purchased \$1,845 in short-term investments and paid \$1,200 for insurance coverage beginning in the next fiscal year.
  - Received \$15 in interest revenue earned in the current year on short-term investments.
- Create T-accounts for the balance sheet accounts and for these additional accounts: Consulting Fees Revenue, Interest Revenue, Salaries Expense, and Utilities Expense. Enter the beginning balances of the balance sheet accounts. Takeover's income statement accounts had zero balances. Post the journal entry effects in requirement (1) above into the T-accounts, using the letter of each transaction as the reference.
- Using the data from the T-accounts, amounts for the following at the end of the current year were  
 Revenues \$ \_\_\_\_\_ - Expenses \$ \_\_\_\_\_ = Net Income \$ \_\_\_\_\_  
 Assets \$ \_\_\_\_\_ = Liabilities \$ \_\_\_\_\_ + Stockholders' Equity \$ \_\_\_\_\_
- What would net income be if Takeover, Inc., used the cash basis of accounting? Why does this differ from accrual basis net income [in requirement (3)]?

3-64



g. Paid \$4,630 of the principal amount of the short-term note.

(\$ in millions)		
Account Titles and Explanation	Debit	Credit
a. Cash (+A).....	14,250	
Consulting fees revenue (+R, +SE).....		14,250
b. Cash (+A).....	1,200	
Common stock (+SE).....		10
Additional paid-in capital (+SE).....		1,190
c. Office equipment (+A).....	960	
Cash (-A).....		240
Short-term note payable (+L).....		720
d. Cash (+A).....	1,335	
Unearned revenue (+L).....		1,335
e. Supplies (+A).....	705	
Accounts payable (+L).....		705
f. Utilities expense (+E, -SE).....	2,700	
Cash (-A).....		2,700
g. Accounts receivable (+A).....	2,430	
Consulting fees revenue (+R, +SE).....		2,430

3-65

h. Received \$4,470 from the company's customers and paid \$2,950 of the short-term note beginning in the next fiscal year.

(\$ in millions)		
Account Titles and Explanation	Debit	Credit
h. Cash (+A).....	4,470	
Accounts receivable (-A).....		4,470
i. Salaries expense (+E, -SE).....	9,315	
Cash (-A).....		7,950
Salaries payable (+L).....		1,365
j. Short-term investments (+A).....	1,845	
Cash (-A).....		1,845
Prepaid Expenses (+A).....	1,200	
Cash (-A).....		1,200
k. Cash (+A).....	15	
Interest revenue (+R, +SE).....		15

3-66

2. Create T-accounts for the balance sheet accounts and for these additional accounts: Consulting Fees Revenue, Interest Revenue, Salaries Expense, and Utilities Expense. Enter the beginning balances of the balance sheet accounts. Takeover's income statement accounts had zero balances. Post the journal entry effects in requirement (1) above into the T-accounts, using the letter of each transaction as the reference.

<b>+ Cash (A) -</b>			<b>+ Short-term investments (A) -</b>			<b>+ Accounts Receivable (A) -</b>		
Beg.	2,850	240 (c)	Beg.	615		Beg.	5,355	4,470 (h)
(a)	14,250	2,700 (f)	(j)	1,845		(g)	2,430	
(b)	1,200	7,950 (i)		<u>2,460</u>			<u>3,315</u>	
(d)	1,335	1,845 (j)	<b>+ Supplies (A) -</b>			<b>+ Prepaid expenses (A) -</b>		
(h)	4,470	1,200 (j)	Beg.	225		Beg.	7,080	
(k)	15		(e)	705		(j)	1,200	
	<u>10,185</u>			<u>930</u>			<u>8,280</u>	
<b>+ Office equipment (A) -</b>			<b>- Accum. depreciation-office equipment (L) +</b>			<b>- Accounts payable (L) +</b>		
Beg.	2,295			720	Beg.		315	Beg.
(c)	960			<u>720</u>			705	(e)
	<u>3,255</u>						<u>1,020</u>	
<b>- Unearned revenue (L) +</b>			<b>- Salaries payable (L) +</b>			<b>- Short-term note payable (L) +</b>		
	1,980	Beg.		1,305	Beg.		1,170	Beg.
	1,335	(d)		1,365	(i)		720	(c)
	<u>3,315</u>			<u>2,670</u>			<u>1,890</u>	
<b>- Common Stock (SE) +</b>			<b>- Additional Paid-in Capital (SE) +</b>			<b>- Retained Earnings (SE) +</b>		
	75	Beg.		9,840	Beg.		3,015	Beg.
	10	(b)		1,190	(b)		4,680	Net income
	<u>85</u>			<u>11,030</u>			<u>7,695</u>	(Current year)
<b>- Consulting fees revenue (R) +</b>			<b>- Interest revenue (R) +</b>			<b>+ Salaries expense (E) -</b>		
	0	Beg.		0	Beg.		0	Beg.
	14,250	(a)		15	(k)	(i)	9,315	
	2,430	(g)		<u>15</u>			<u>9,315</u>	
	<u>16,680</u>						<u>2,700</u>	
<b>+ Utilities Expense (E) -</b>								

3-67

3. Using the data from the T-accounts, amounts for the following at the end of the current year were

Revenues \$ \_\_\_\_\_ - Expenses \$ \_\_\_\_\_ = Net Income \$ \_\_\_\_\_  
Assets \$ \_\_\_\_\_ = Liabilities \$ \_\_\_\_\_ + Stockholders' Equity \$ \_\_\_\_\_

$$\begin{aligned} \$16,695 - \$12,015 &= \$4,680 \\ \$28,425 &= \$9,615 + \$18,810 \end{aligned}$$

4. What would net income be if Takeover, Inc., used the cash basis of accounting? Why does this differ from accrual basis net income [in requirement (3)]?

$$\$21,270 - \$13,935 = \$7,335$$

3-68

# Learning Objective 3-5

3-5 Prepare a classified income statement.

3-69

## How Is the Income Statement Prepared and Analyzed? 1

CHIPOTLE MEXICAN GRILL		
Unadjusted Trial Balance		
For the first quarter ended March 31, 2018		
(in millions)	Debit	Credit
Cash	731	
Short-term investments	333	
Accounts receivable	54	
Supplies	390	
Prepaid expenses	131	
Land	21	
Buildings	1,711	
Equipment	628	
Accumulated depreciation		979
Long-term investments	35	
Intangible assets	81	
Accounts payable		88
Unearned revenue		106
Dividends payable		2
Income taxes payable		0
Wages payable		0
Utilities payable		5
Notes payable (current)		0
Notes payable (noncurrent)		80
Other liabilities		279
Common stock		2
Additional paid-in capital		1,604
Treasury stock	2,334	
Retained earnings		2,391
Restaurant sales revenue		1,228
Interest revenue		1
Wages expense	177	
Utilities expense	75	
Repairs expense	19	
Training expense	41	
Loss on disposal of assets	4	
Income tax expense	0	
Total	6,765	6,765

3-70

How Is the Income Statement Prepared and Analyzed? <sub>2</sub>

Classified  
Income  
Statement

CHIPOTLE MEXICAN GRILL, INC. Consolidated Statement of Income <b>UNADJUSTED</b> For the Quarter ended March 31, 2018 (in millions of dollars)	
Restaurant sales revenue	\$1,228
Restaurant operating expenses:	
Wages expense	177
Utilities expense	75
Repairs expense	19
General and administrative expenses:	
Training expense	41
Loss on disposal of assets	4
Total operating expenses	316
Income from operations	912
Other items:	
Interest revenue	1
Income before income taxes	913
Income tax expense	0
Net income	\$ 913

*Note: Because this statement is based on unadjusted balances, it would not be presented to external users.*

3-71

Exercise 3-5

Barkley’s Engine Rebuilding Company has been operating for one year and one month (Since January 1, year 1). Ending balances (unadjusted) for the next year for Barkley’s as of January 31, year 2 are shown in the following T-accounts:

<b>Cash</b>	<b>Accounts Receivable</b>	<b>Supplies</b>
25,040	45,600	4,800
<b>Equipment</b>	<b>Land</b>	<b>Building</b>
21,040	14,400	52,800
<b>Accounts Payable</b>	<b>Unearned Fee Revenue</b>	<b>Notes Payable</b>
15,960	8,880	96,000

3-72

<b>Contributed Capital</b>		<b>Retained Earnings</b>		<b>Rebuilding Fees Revenue</b>	
	19,040		23,800		36,800
<b>Wages Expense</b>		<b>Utilities Expense</b>		<b>Rent Revenue</b>	
30,000		1,040			1,640

**Required:**

Use the ending balances in the T-accounts to prepare an unadjusted classified income statement for January, year 2 (ignore income taxes).

3-73

**BARKLEY'S ENGINE REBUILDING COMPANY**

**Income Statement (unadjusted)**  
**For the Month ended January 31, year 2**

**Operating revenues:**

Rebuilding fees revenue	\$36,800
Total operating revenues	36,800

**Operating expenses:**

Wages expense	30,000
Utilities expense	1,040
Total operating expenses	31,040

**Income from operations** 5,760

**Other items:**

Rent revenue	1,640
--------------	-------

**Net Income** \$ 7,400

3-74

## Learning Objective 3-6

**3-6** Compute and interpret the net profit margin ratio.

3-75

### Net Profit Margin Ratio

KEY RATIO ANALYSIS

\$\$\$

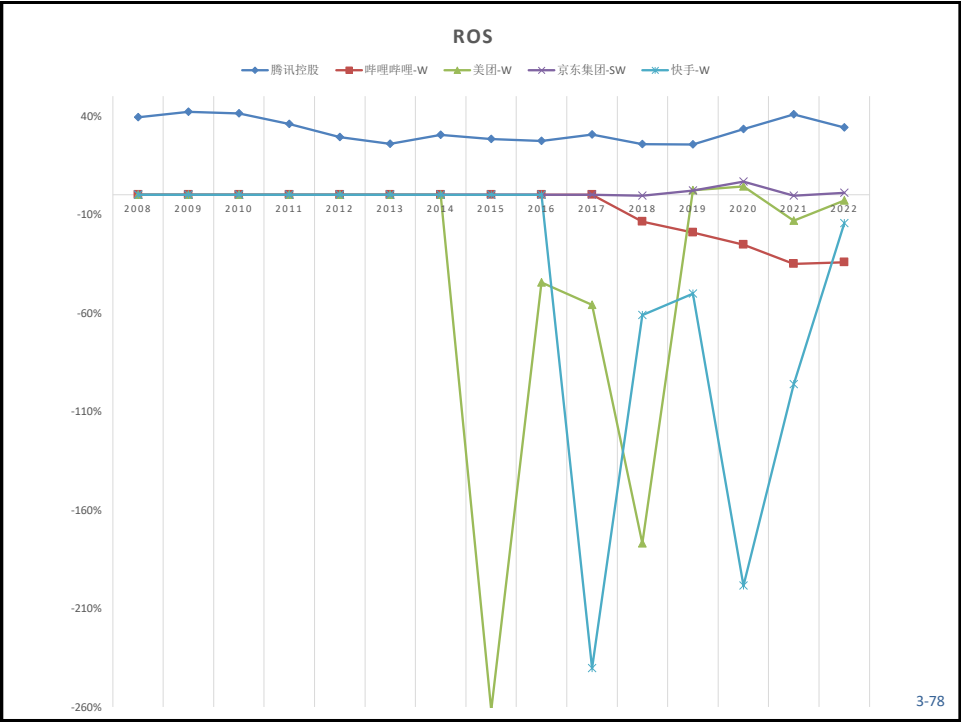
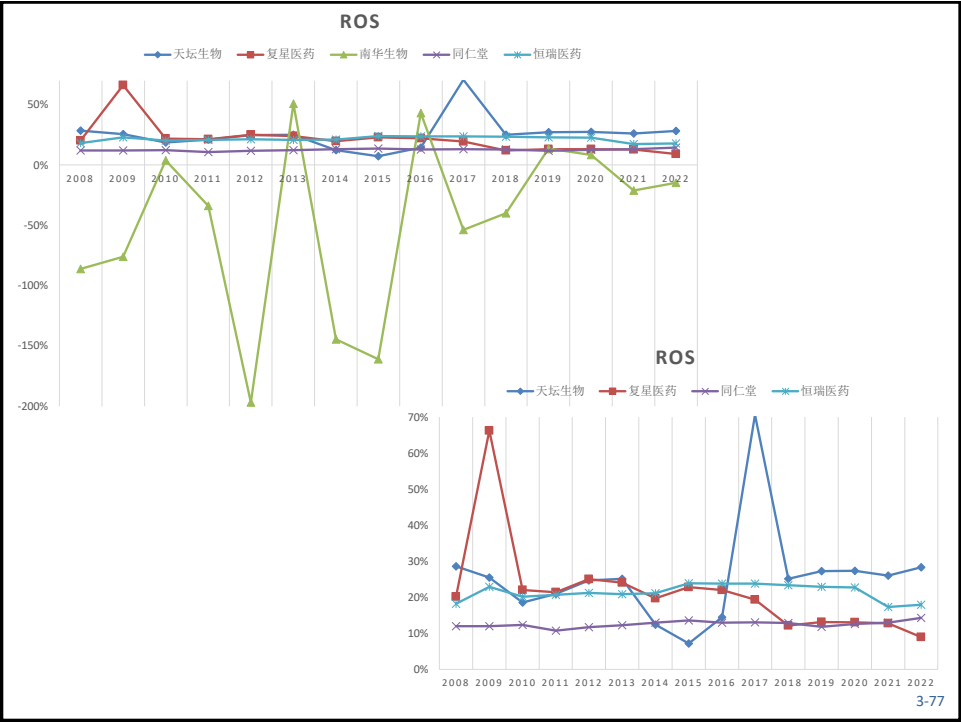
How effective is management in generating profit on every dollar of sales?

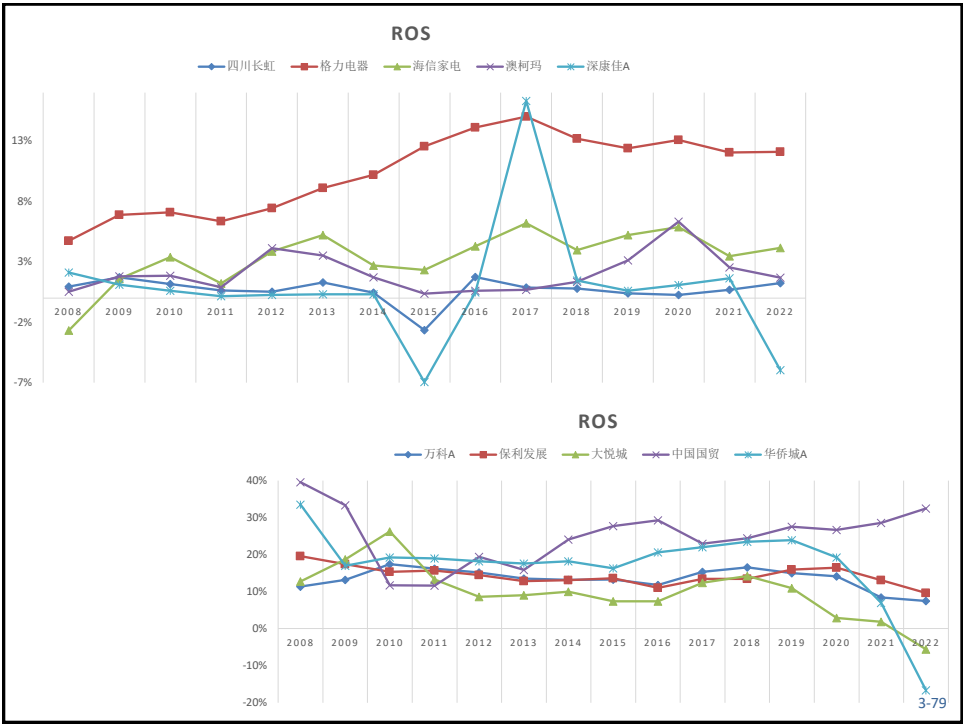
$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Net Sales (or Operating Revenues)}}$$

A rising **net profit margin (Return on Sales, ROS)** signals more efficient management of sales and expenses.

*Note: Net sales is sales revenue less any returns from customers and other reductions. For companies in the service industry, total operating revenues is equivalent to net sales.*

3-76





## Learning Objective 3-7

**3-7** Identify operating transactions and demonstrate how they affect cash flows.



Effect of Operating Activities on Cash Flows

FOCUS ON CASH FLOWS

Only transactions affecting cash are reported on the Statement of Cash Flows. Cash flows from operating activities are primarily cash received from customers and cash paid to suppliers and other involved in operations.



Let’s analyze the Cash T-account for **Chipotle’s** transactions in this chapter:

		+ Cash (A) –					
		1/1/18	186				
From investors	+ F	(a)	300	54	(c)	–I	To purchase noncurrent assets
From bank	+ F	(b)	2	1	(d)	–F	To repay notes payable to the bank
				44	(e)	–I	To purchase investments in other companies
From customers	+ O	(3)	1,184	290	(1)	–O	To pay suppliers of food and paper products
From sale of noncurrent asset	+ I	(6)	5	80	(2)	–O	To pay suppliers of rental facilities, insurance, and advertising
From customers	+ O	(7)	39	41	(4)	–O	To pay to train employees
From earnings on investments	+ O	(10)	1	260	(5)	–O	To pay employees for working
From customers	+ O	(11)	42	164	(8)	–O	To pay suppliers and taxes
				94	(9)	–O	To pay suppliers of utilities and repairs
			<u>731</u>				

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