

Chapter 2

True-False

1. The balance sheet is also called the statement of condition or statement of financial position.
2. The balance sheet is prepared for a period of time, generally a year.
3. A classified balance sheet means that the asset and liability sections are categorized into key areas.
4. Companies that use IFRS may switch the order of presentation of assets and liabilities, listing noncurrent items before current items.
5. As part of an integrated disclosure system required by the SEC, the information presented in annual reports includes three-year audited balance sheets.
6. A common-size balance sheet is useful to the analyst because it facilitates the structural analysis of the firm.
7. Working capital refers to the investment in property, plant and equipment.
8. The valuation of marketable securities on the balance sheet requires the separation of investment securities into three categories: held to maturity, trading securities, and securities available for sale.
9. Accounts receivable are recorded on the balance sheet at gross realizable value.
10. Retained earnings is the unused stash of cash that a firm has accumulated since inception.

Fill in the Blank

1. A _____ expresses each item on the balance sheet as a percentage of total assets.
2. _____ are those assets expected to be converted into cash within one year or operating cycle, whichever is longer.

3. _____ are also referred to as short-term investments.
4. The net realizable value of accounts receivable is the actual amount of the account less an _____.
5. Additional information helpful to the analysis of accounts receivable and the allowance account is provided in the schedule of _____.
6. The three cost flow assumptions most frequently used in the U.S. are _____, _____, and _____.
7. _____ arises when one company acquires another company for a price in excess of the fair market value of the net identifiable assets.
8. Companies that are paid in advance for services or products record a liability on the receipt of cash in an account titled _____ or _____.
9. A _____ lease affects both the balance sheet and the income statement.
10. Many companies list an account titled _____ on the balance sheet even though no dollar amount will appear.

Multiple Choice

1. The balancing equation is expressed as:
 - a. $\text{Assets} + \text{Liabilities} = \text{Stockholders' Equity}$.
 - b. $\text{Revenues} - \text{Expenses} = \text{Net Income}$.
 - c. $\text{Sales} - \text{Costs} = \text{Net Profit}$.
 - d. $\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$.
2. Which of the following statements is false?
 - a. Common-size balance sheets allow for comparison of firms with different levels of total assets by introducing a common denominator.
 - b. The common-size balance sheet reveals the composition of assets within major categories.
 - c. Each item on a common-size balance sheet is expressed as a percentage of sales.
 - d. The common-size balance sheet reveals the capital and the debt structure of the firm.

3. Which of the following accounts would be classified as current assets on the balance sheet?
- a. Accounts receivable, inventory, cash equivalents.
 - b. Marketable securities, accounts payable, property, plant and equipment.
 - c. Prepaid expenses, goodwill, long-term investments.
 - d. Property, plant and equipment, inventory, goodwill.
4. Which of the following items would not be classified as cash equivalents?
- a. U.S. Treasury bills.
 - b. Trading securities.
 - c. Commercial paper.
 - d. Money market funds.
5. Which of the following marketable securities are reported at fair value?
- a. Held to maturity and trading securities.
 - b. Trading securities and securities available for sale.
 - c. Held to maturity and securities available for sale.
 - d. Corporate bonds and convertible debt.
6. Which of the following items should alert the analyst to the potential for manipulation when analyzing accounts receivable and the allowance for doubtful accounts?
- a. Sales, accounts receivable and the allowance for doubtful accounts are all growing at approximately the same rate.
 - b. A company lowers its credit standards and also increases the balance in the allowance for doubtful accounts.
 - c. Accounts receivable is growing at a large rate and the allowance for doubtful accounts is decreasing.
 - d. An analysis of the "Valuation and Qualifying Accounts" schedule required in the Form 10-K reveals that the amounts recorded for bad debt expense are close in amount to the actual amounts written off each year.
7. Which method of inventory assumes the last units purchased will remain in ending inventory on the balance sheet?
- a. FIFO.
 - b. LIFO.
 - c. Average cost.
 - d. LIFO and FIFO.

8. Which type of firm would most likely carry the most finished goods inventory?
- a. A manufacturing firm.
 - b. A retail firm.
 - c. A service firm.
 - d. A wholesale firm.
9. Which method of inventory would be least likely to be used by a European firm?
- a. FIFO.
 - b. LIFO.
 - c. Average cost.
 - d. LIFO and FIFO.
10. Which of the following statements is false?
- a. Companies are allowed to use more than one inventory valuation method.
 - b. LIFO is an income tax concept.
 - c. Using FIFO for high-technology products makes sense if the firm is trying to reduce taxes because the technology industry is generally deflationary.
 - d. Companies using IFRS may not reverse entries for inventory write-downs if the market recovers.

Use the following information to answer questions 11 through 13:

ABC Company purchases five products for sale in the order and at the costs shown:

<u>Unit</u>	<u>Cost per Unit</u>
1	\$10
2	\$12
3	\$15
4	\$18
5	\$13

11. Assume ABC sells two items and uses the FIFO method of inventory valuation. What amount would appear in ending inventory on the balance sheet?
- a. \$22
 - b. \$46
 - c. \$45
 - d. \$31

12. Assume ABC sells two items and uses the LIFO method of inventory valuation. What amount would appear for cost of goods sold on the income statement?

- a. \$37
- b. \$41
- c. \$22
- d. \$31

13. Assume ABC uses the average cost method of inventory valuation. What unit cost would be used to determine the amount in ending inventory or cost of goods sold?

- a. \$12.67
- b. \$13.60
- c. \$15.00
- d. \$13.00

14. Which of the following statements is true?

- a. The straight-line method of depreciation allocates a decreasing amount of depreciation expense each year.
- b. Straight-line depreciation is the least used method for financial reporting purposes.
- c. Fixed assets are reported at historical cost less accumulated depreciation on the balance sheet.
- d. The total amount of depreciation over the asset's life is larger when using an accelerated method of depreciation.

15. When will a firm regard goodwill on its books?

- a. When one company acquires another company for a price in excess of the fair market value of the net identifiable assets acquired.
- b. When the firm donates property to charities.
- c. When it is determined that there has been a loss of value of long-term assets.
- d. When fixed assets are impaired.

16. Which of the following accounts could be categorized as either a current or noncurrent liability depending on date the debt is due?

- a. Notes payable and deferred taxes.
- b. Accounts payable and current portion of long-term debt.
- c. Deferred taxes and mortgages due in 30 years.
- d. Long-term warranties and accounts payable.

17. Which items would be classified as long-term debt?
- a. Accounts payable, unearned revenue, pension liabilities.
 - b. Common stock, retained earnings, bonds payable.
 - c. Mortgages, convertible debentures, bonds payable.
 - d. Deferred taxes, accrued expenses, treasury stock.
18. How are deferred taxes recorded on the balance sheet?
- a. As current or noncurrent liabilities.
 - b. As stockholders' equity.
 - c. As noncurrent assets or noncurrent liabilities.
 - d. As current or noncurrent assets or liabilities.
19. Which stockholders' equity account represents the sum of every dollar a company has earned since its inception, less any payments made to shareholders in the form of dividends?
- a. Treasury stock.
 - b. Accumulated other comprehensive income
 - c. Retained earnings.
 - d. Preferred stock.
20. Which item below would not be a quality of financial reporting issue related to the balance sheet?
- a. Mismatching the type of debt (short or long-term) used to finance assets.
 - b. Discretionary expenses.
 - c. Overvaluation of assets.
 - d. Off-balance sheet financing.

Short Answer/Problem

1. Explain the format and key components of a balance sheet prepared in the U.S. or overseas.
2. Define current assets and current liabilities and give two examples of each.
3. Why should the allowance for doubtful accounts and the valuation and qualifying accounts schedule be analyzed?
4. Write a short explanation of why you agree or disagree with the following statement:

“The LIFO method of inventory valuation cannot be used by grocery stores.”

5. Explain the impact of calculating depreciation using the straight-line method versus an accelerated method on the amounts shown on a balance sheet.

6. Using the following information analyze the accounts receivable and the allowance for doubtful accounts for this company:

	<u>2015</u>	<u>2014</u>
Sales	\$11,230	\$10,340
Accounts receivable, net	1,510	1,860
Allowance for doubtful accounts	43	32

7. Using the following excerpts from the most recent annual report of WooHoo, a high technology firm, analyze the accounts receivable and allowance for doubtful accounts. Be sure to show all calculations and write a thorough interpretation of those calculations.

<i>(dollars in millions)</i>	<i>2015</i>	<i>2014</i>
Net sales	\$7,200	\$6,400
Accounts receivable - less allowance for doubtful accounts of \$22 at April 30, 2015 and \$40 April 30, 2014	\$1,000	\$1,030

WooHoo
Valuation And Qualifying Accounts
For the Years Ended April 30, 2015, 2014 and 2013

	Balance at beginning of period	Charged to expenses	Deductions	Balance at end of period
Allowance for doubtful accounts				
2015	\$40	\$5	(\$23)	\$22
2014	\$51	\$4	(\$15)	\$40
2013	\$46	\$25	(\$20)	\$51

8. Why is the inventory accounting method chosen by a company important to the user of financial statement information?

9. Using the following information calculate the ending inventory balance and the cost of goods sold expense that would be reported at the end of the year if the following inventory valuation methods are used:

- a. Average cost
- b. FIFO
- c. LIFO

	<u>Units</u>	<u>Purchase Price</u>
Beginning inventory	100	\$25
Purchase #1	80	\$26
Purchase #2	160	\$23
Purchase #3	90	\$24
Sales	260	

10. Using the following information calculate the ending inventory balance and the cost of goods sold expense that would be reported at the end of the year if the following inventory valuation methods are used:

- a. Average cost
- b. FIFO
- c. LIFO

	<u>Units</u>	<u>Purchase Price</u>
Beginning inventory	8	\$8
Purchase #1	15	\$9
Purchase #2	24	\$11
Purchase #3	12	\$13
Sales	40	

11. The Breakfast Company purchases equipment for \$100,000. Management estimates that the equipment will have a useful life of eight years and no salvage value.

- a. Calculate depreciation expense and the book value of the equipment at the end of the first year using the straight-line method of depreciation.
- b. Calculate depreciation expense and the book value at the end of the first year using the double-declining balance method of depreciation.

12. Redtop Co. purchased a piece of equipment last year for \$300,000. Management estimates that the equipment will have a useful life of five years and

no salvage value. The depreciation expense recorded for tax purposes will be \$72,000 this year (Year 2). The company uses the straight-line method of depreciation for reporting purposes.

- a. Calculate the amount of depreciation expense for reporting purposes this year (Year 2).
- b. What will be the net book value of the equipment reported on the balance sheet at the end of this year (Year 2)?
- c. Will a deferred tax asset or liability be created as a result of the depreciation recorded for tax and financial reporting purposes?
- d. What amount will be added to the deferred tax account as a result of the depreciation timing difference?

13. Explain the differences between accounts payable, short-term debt, current maturities of long-term debt, accrued liabilities and unearned revenue.

14. Explain the differences between long-term notes payable, mortgages, debentures, bonds payable, and convertible debt.

15. Using the following balance sheet, prepare a common size balance sheet:

<u>Assets</u>		<u>Liabilities and stockholders' equity</u>	
Current assets		Current liabilities	
Cash	4	Accounts payable	28
Short-term investments	9	Current portion of	
Accounts receivable	32	long-term debt	<u>12</u>
Inventory	41	Total current liabilities	40
Prepaid expenses	2	Long-term liabilities	
Deferred taxes, current	<u>7</u>	Long-term debt	<u>48</u>
Total current assets	95	Total liabilities	88
Long-term assets		Stockholders' equity	
Property & equipment	53	Common stock and PIC	51
Goodwill	12	Retained earnings	
<u>30</u>			
Long-term investments	8	-	
Other assets	<u>1</u>	Total stockholders' equity	<u>81</u>
Total assets	<u>169</u>	Total liabilities and equity	<u>169</u>

16. Analyze the following common size balance sheet:

	<u>2015</u>	<u>2014</u>
Current assets:		
Cash	1%	16%
Accounts receivable	24	18
Inventory	<u>35</u>	<u>30</u>
Total current assets	60%	64%
 Property, plant and equipment	37	26
Other assets	<u>3</u>	<u>10</u>
Total assets	<u>100%</u>	<u>100%</u>
 Current liabilities:		
Accounts payable	29%	27%
Short-term debt	<u>23</u>	<u>33</u>
Total current liabilities	52%	60%
 Long-term debt	<u>22</u>	<u>17</u>
Total liabilities	74%	77%
 Common stock and paid in capital	9	10
Retained earnings	<u>17</u>	<u>13</u>
Total stockholders' equity	<u>26%</u>	<u>23%</u>
Total liabilities and stockholders' equity	<u>100%</u>	<u>100%</u>

Solutions - Chapter 2

True-False

- | | |
|------|-------|
| 1. T | 6. T |
| 2. F | 7. F |
| 3. T | 8. T |
| 4. T | 9. F |
| 5. F | 10. F |

Fill in the Blank

1. common-size balance sheet
2. Current assets
3. Marketable securities
4. allowance for doubtful accounts
5. valuation and qualifying accounts
6. FIFO, LIFO, average cost
7. Goodwill
8. unearned revenue, deferred credits
9. capital
10. commitments and contingencies

Multiple Choice

- | | | | |
|------|-------|-------|-------|
| 1. d | 6. c | 11. b | 16. a |
| 2. c | 7. a | 12. d | 17. c |
| 3. a | 8. b | 13. b | 18. d |
| 4. b | 9. b | 14. c | 19. c |
| 5. b | 10. d | 15. a | 20. b |

Short Answer/Problem

1. The balance sheet is a picture of the balancing equation: Assets = Liabilities + Stockholders' equity. Two years of balance sheet data is included and the statement is prepared at a point in time. Many balance sheets are "classified". This means that the asset and liability sections are categorized into key sections. Asset classifications generally include a section for current assets, property, plant and

equipment, intangible assets and other assets, while liability classifications include current liabilities and noncurrent liabilities. In the U.S., accounts are usually listed in terms of liquidity within sections. The most liquid assets are listed first; liabilities are listed in order of maturity. The format used for companies using IFRS varies with some firms using the U.S. format. A common format used by international firms is to list assets and liabilities in reverse order with noncurrent assets listed before current assets and noncurrent liabilities listed before current liabilities. Some foreign firms also switch the order of stockholders' equity and liabilities, listing equity before liabilities.

2. Current assets include cash or those assets expected to be converted into cash within one year or one operating cycle, whichever is longer. The *operating cycle* is the time required to purchase or manufacture inventory, sell the product, and collect the cash. Examples of current assets include cash, marketable securities, accounts receivable, inventory, prepaid expenses which expire in one year. Current liabilities represent claims against assets that must be satisfied in one year or one operating cycle, whichever is longer. Examples of current liability accounts include accounts payable, short-term debt, current maturities of long-term debt, accrued liabilities, unearned revenue.

3. The allowance for doubtful accounts can be important in assessing earnings quality. If, for instance, a company expands sales by lowering its credit standards, there should be a corresponding percentage increase in the allowance account. The estimation of this account will affect both the valuation of accounts receivable on the balance sheet and the recognition of bad debt expense on the income statement. The analyst should be alert to changes in the allowance account—both relative to the level of sales and the amount of accounts receivable outstanding—and to the justification for any variations from past practices. The analyst should use the valuation and qualifying accounts schedule to assess the probability that the firm is intentionally over- or underestimating the allowance account to manipulate the net earnings number on the income statement. This schedule shows the estimates of bad debt expense made each year as well as the actual amount of accounts receivable written off.

4. The statement is false. Inventory valuation is based on an assumption regarding the flow of goods and has nothing whatever to do with the actual order in which products are sold. The cost flow assumption is made in order to match the cost of products sold during an accounting period to the revenue generated from the sales and to assign a dollar value to the inventory remaining for sale at the end of the accounting period. The physical flow of products in a grocery store is on a first-in,

first-out basis, however, GAAP does not require that the cost flow method used for accounting purposes match the physical flow of goods. Grocery stores may use LIFO.

5. When firms record depreciation expense each year, the amount recorded is also recorded in the accumulated depreciation account which is then deducted from the fixed assets on the balance sheet. If depreciation is recorded using the straight-line method a smaller amount of depreciation is recorded in the early years of the life of an asset compared to an accelerated method. In later years the straight-line method will cause a higher amount of depreciation to be recorded relative to an accelerated method. The total amount of depreciation recorded over the life of the asset is the same regardless of method.

6.	<u>2015</u>	<u>2014</u>
<u>Allowance for doubtful accts.</u>		
Accts. Receivable + Allow.	2.8%	1.7%
Growth rates: Sales	8.6%	
Accts. Receivable (net)	(18.8%)(A/R, gross, (17.9%))	
Allowance for doubt. accts.	34.4%	

Sales for this company have increased so it is expected that the accounts receivable account would also increase. This is not necessarily a concern as it is possible the firm has done a better job collecting on accounts. It is also possible that large write-offs have occurred causing a drop in accounts receivable, however, the valuation schedule would need to be analyzed to determine if that was the reason for the decline. Since accounts receivable decreased it would be expected that the allowance for doubtful accounts would also decrease. Possible explanations for this inconsistency could be:

1. the company has loosened its credit policy,
2. prior bad debt estimates were too low and the company is correcting for this, or
3. management has intentionally increased bad debts now with the intent to reduce the estimates in future years to report a higher net income in a later year.

7.	<u>2015</u>	<u>2014</u>
<u>Allowance for doubtful accts.</u>		
Accts. Receivable + Allow.	2.2%	3.7%
Growth rates: Sales	12.5%	
Accts. Receivable (net)	(2.9%)(A/R, gross, (4.5%))	
Allowance for doubt. accts.	(45.0%)	

WooHoo experienced an increase in sales in 2015; however, both the accounts receivable and allowance for doubtful accounts decreased. The estimated percentage of bad debt relative to total accounts receivable has declined from 3.7% in 2014 to 2.2% in 2015, indicating management is expecting to collect more of their accounts receivable in the future.

The valuation schedule indicates that the allowance balance was somewhat high compared to actual write-offs in 2013 and 2014. The firm charged very little to the bad expense account in 2014 and 2015 which would have resulted in higher net income in those years. The allowance account balance at the end of 2015 is now lower than the actual write-offs in 2015 and may be inadequate in the upcoming year.

WooHoo may have tightened their credit policy and is anticipating better collections in the future or they may be intentionally manipulating the account to report higher income in a year with poor earnings.

8. Given the relative magnitude of inventory, the accounting method chosen to value inventory and the associated measurement of cost of goods sold have a considerable impact on a company's financial position and operating results. The method chosen by a company to account for inventory determines the value of inventory on the balance sheet and the amount of expense recognized for cost of goods sold on the income statement. The significance of inventory accounting is underlined by the presence of inflation and by the implications for tax payments and cash flow. Inventory valuation is based on an *assumption* regarding the flow of goods and has nothing whatever to do with the *actual* order in which products are sold. The cost flow assumption is made in order to *match* the cost of products sold during an accounting period to the revenue generated from the sales and to assign a dollar value to the inventory remaining for sale at the end of the accounting period.

9. Total units available for sale	430
Units sold	<u>260</u>
Units in ending inventory	170

Cost of units purchased:

100 units x \$25 =	\$2,500
80 units x \$26 =	\$2,080
160 units x \$23 =	\$3,680
<u>90 units x \$24 =</u>	<u>\$2,160</u>
430 units	\$10,420

a. Weighted average cost per unit:

$$\frac{\$10,420}{430} = \$24.2325$$

COGS = \$24.2325 x 260 units = \$ 6,300

EI = \$24.2325 x 170 units = \$ 4,120

Total goods available for sale = \$10,420

b. FIFO

COGS:

100@\$25 =	\$ 2,500
80@\$26 =	\$ 2,080
<u>80@\$23 =</u>	<u>\$ 1,840</u>
<u>260 units</u>	<u>\$6,420</u>

EI:

90@\$24 =	\$ 2,160
<u>80@\$23 =</u>	<u>\$ 1,840</u>
<u>170 units</u>	<u>\$ 4,000</u>

Check answer: COGS \$ 6,420

+EI \$ 4,000

Total goods available \$10,420

c. LIFO

COGS:

90@\$24 =	\$ 2,160
160@\$23 =	\$ 3,680
<u>10@\$26 =</u>	<u>\$ 260</u>
<u>260 units</u>	<u>\$6,100</u>

EI:

100@\$25 =	\$2,500
<u>70@\$26 =</u>	<u>\$1,820</u>
<u>170 units</u>	<u>\$4,320</u>

Check answer: COGS \$ 6,100

+EI \$ 4,320

Total goods available \$10,420

10. Total units available for sale	59
Units sold	<u>40</u>
Units in ending inventory	19

Cost of units purchased:

8 units x \$ 8 =	\$ 64
15 units x \$ 9 =	\$135
24 units x \$11 =	\$264
<u>12 units x \$13 =</u>	<u>\$156</u>
59 units	\$619

a. Weighted average cost per unit:

$$\frac{\$619}{59} = \$10.4915$$

COGS = \$10.4915 x 40 units = \$ 420

EI = \$10.4915 x 19 units = \$ 199

Total goods available for sale = \$ 619

b. FIFO

COGS:

8@\$ 8 =	\$ 64
15@\$ 9 =	\$ 135
<u>17@\$11 =</u>	<u>\$ 187</u>
40 units	\$ 386

EI:

7@\$11 =	\$ 77
<u>12@\$13 =</u>	<u>\$ 156</u>
19 units	\$ 233

Check answer: COGS \$ 386

+EI \$ 233

Total goods available \$ 619

c. LIFO

COGS:

12@\$13 =	\$ 156
24@\$11 =	\$ 264
<u>4@\$ 9 =</u>	<u>\$ 36</u>
40 units	\$ 456

EI:

8@\$8 =	\$ 64
<u>11@\$9 =</u>	<u>\$ 99</u>
19 units	\$ 163

Check answer: COGS \$ 456

+EI \$ 163

Total goods available \$ 619

11. a. $\frac{\$100,000}{8 \text{ years}} = \$12,500 \text{ per year}$

Book value = $\$100,000 - \$12,500 = \$87,500$

b. $\$100,000 \times (2 \times .125) = \$25,000$

Book value = $\$100,000 - \$25,000 = \$75,000$

12. a. $\frac{\$300,000}{5 \text{ years}} = \$60,000 \text{ per year}$

b. $\$300,000 - 60,000 - 60,000 = \$180,000$

c. Deferred tax liability.

d. $\$72,000 - 60,000 = \$12,000$

13. Accounts payable are short-term obligations that arise from credit extended by suppliers for the purchase of goods and services. Short-term debt (also referred to as notes payable) consists of obligations in the form of promissory notes to suppliers or financial institutions due in one year or less. When a firm has bonds, mortgages, or other forms of long-term debt outstanding, the portion of the principal that will be repaid during the upcoming year is classified as a current liability. Accrued liabilities result from the recognition of an expense in the accounting records prior to the actual payment of cash. Companies that are paid in advance for services or products record a liability referred to as unearned revenue on the receipt of cash.

14. Long-term notes payable are contractual agreements between borrower and lender (generally a bank) which designate the principal and interest repayment schedule and other conditions of the loan. Mortgages are loan agreements secured by real estate. Debentures are unsecured debt backed by the company's general credit standing. Bonds payable are financial instruments used to raise cash which are traded in capital markets. Bonds are generally issued in denominations of \$1,000 (face value or maturity value) and have a stated interest rate. Since bonds are traded on markets, the issue price investors are willing to pay may be more or less than the face or maturity value. Convertible debt is debt in the form of bonds

or notes that allows the investor or lender the opportunity to exchange a company's debt for common stock of that company. The terms of the agreement are specified in a document referred to as the bond indenture. The conversion price, or dollar value at which the debt may be converted into common stock, is generally set at an amount higher than the current market price of the firm's stock when the debt is issued.

15.

<u>Assets</u>		<u>Liabilities and stockholders' equity</u>	
Current assets		Current liabilities	
Cash	3%	Accounts payable	17
Short-term investments	5	Current portion of	
Accounts receivable	19	long-term debt	<u>7</u>
Inventory	24	Current liabilities	24%
Prepaid expenses	1	Long-term liabilities	
Deferred taxes, current	<u>4</u>	Long-term debt	<u>28</u>
Total current assets	56%	Total liabilities	52%
Long-term assets		Stockholders' equity	
Property & equipment	31	Common stock and PIC	30
Goodwill	7	Retained earnings	<u>18</u>
Long-term investments	5	-	
Other assets	<u>1</u>	Total stockholders' equity	<u>48%</u>
Total assets	<u>100%</u>	Total liabilities and equity	<u>100%</u>

16. By looking at the common size balance sheet, one can see that there have been structural changes in the components of the balance sheet equation. Cash and other assets have decreased, while accounts receivable, inventory and property, plant and equipment have increased. The company appears to have used cash to purchase property, plant and equipment. The 8% decline in current liabilities is a result of a decrease in short-term debt. Long-term debt has increased so the firm is using more permanent financing to support their assets. Retained earnings has increased which could be due to an increasing net income.

Solutions - Chapter 2

True-False

- | | |
|------|-------|
| 1. T | 6. T |
| 2. F | 7. F |
| 3. T | 8. T |
| 4. T | 9. F |
| 5. F | 10. F |

Fill in the Blank

1. common-size balance sheet
2. Current assets
3. Marketable securities
4. allowance for doubtful accounts
5. valuation and qualifying accounts
6. FIFO, LIFO, average cost
7. Goodwill
8. unearned revenue, deferred credits
9. capital
10. commitments and contingencies

Multiple Choice

- | | | | |
|------|-------|-------|-------|
| 1. d | 6. c | 11. b | 16. a |
| 2. c | 7. a | 12. d | 17. c |
| 3. a | 8. b | 13. b | 18. d |
| 4. b | 9. b | 14. c | 19. c |
| 5. b | 10. d | 15. a | 20. b |

Short Answer/Problem

1. The balance sheet is a picture of the balancing equation: $\text{Assets} = \text{Liabilities} + \text{Stockholders' equity}$. Two years of balance sheet data is included and the statement is prepared at a point in time. Many balance sheets are “classified”. This means that the asset and liability sections are categorized into key sections. Asset classifications generally include a section for current assets, property, plant and

equipment, intangible assets and other assets, while liability classifications include current liabilities and noncurrent liabilities. In the U.S., accounts are usually listed in terms of liquidity within sections. The most liquid assets are listed first; liabilities are listed in order of maturity. The format used for companies using IFRS varies with some firms using the U.S. format. A common format used by international firms is to list assets and liabilities in reverse order with noncurrent assets listed before current assets and noncurrent liabilities listed before current liabilities. Some foreign firms also switch the order of stockholders' equity and liabilities, listing equity before liabilities.

2. Current assets include cash or those assets expected to be converted into cash within one year or one operating cycle, whichever is longer. The *operating cycle* is the time required to purchase or manufacture inventory, sell the product, and collect the cash. Examples of current assets include cash, marketable securities, accounts receivable, inventory, prepaid expenses which expire in one year. Current liabilities represent claims against assets that must be satisfied in one year or one operating cycle, whichever is longer. Examples of current liability accounts include accounts payable, short-term debt, current maturities of long-term debt, accrued liabilities, unearned revenue.

3. The allowance for doubtful accounts can be important in assessing earnings quality. If, for instance, a company expands sales by lowering its credit standards, there should be a corresponding percentage increase in the allowance account. The estimation of this account will affect both the valuation of accounts receivable on the balance sheet and the recognition of bad debt expense on the income statement. The analyst should be alert to changes in the allowance account—both relative to the level of sales and the amount of accounts receivable outstanding—and to the justification for any variations from past practices. The analyst should use the valuation and qualifying accounts schedule to assess the probability that the firm is intentionally over- or underestimating the allowance account to manipulate the net earnings number on the income statement. This schedule shows the estimates of bad debt expense made each year as well as the actual amount of accounts receivable written off.

4. The statement is false. Inventory valuation is based on an assumption regarding the flow of goods and has nothing whatever to do with the actual order in which products are sold. The cost flow assumption is made in order to match the cost of products sold during an accounting period to the revenue generated from the sales and to assign a dollar value to the inventory remaining for sale at the end of the accounting period. The physical flow of products in a grocery store is on a first-in,

first-out basis, however, GAAP does not require that the cost flow method used for accounting purposes match the physical flow of goods. Grocery stores may use LIFO.

5. When firms record depreciation expense each year, the amount recorded is also recorded in the accumulated depreciation account which is then deducted from the fixed assets on the balance sheet. If depreciation is recorded using the straight-line method a smaller amount of depreciation is recorded in the early years of the life of an asset compared to an accelerated method. In later years the straight-line method will cause a higher amount of depreciation to be recorded relative to an accelerated method. The total amount of depreciation recorded over the life of the asset is the same regardless of method.

6.	<u>2015</u>	<u>2014</u>
<u>Allowance for doubtful accts.</u>		
Accts. Receivable + Allow.	2.8%	1.7%
Growth rates: Sales	8.6%	
Accts. Receivable (net)	(18.8%)(A/R, gross, (17.9%))	
Allowance for doubt. accts.	34.4%	

Sales for this company have increased so it is expected that the accounts receivable account would also increase. This is not necessarily a concern as it is possible the firm has done a better job collecting on accounts. It is also possible that large write-offs have occurred causing a drop in accounts receivable, however, the valuation schedule would need to be analyzed to determine if that was the reason for the decline. Since accounts receivable decreased it would be expected that the allowance for doubtful accounts would also decrease. Possible explanations for this inconsistency could be:

1. the company has loosened its credit policy,
2. prior bad debt estimates were too low and the company is correcting for this, or
3. management has intentionally increased bad debts now with the intent to reduce the estimates in future years to report a higher net income in a later year.

7.	<u>2015</u>	<u>2014</u>
<u>Allowance for doubtful accts.</u>		
Accts. Receivable + Allow.	2.2%	3.7%
Growth rates: Sales	12.5%	
Accts. Receivable (net)	(2.9%)(A/R, gross, (4.5%))	
Allowance for doubt. accts.	(45.0%)	

WooHoo experienced an increase in sales in 2015; however, both the accounts receivable and allowance for doubtful accounts decreased. The estimated percentage of bad debt relative to total accounts receivable has declined from 3.7% in 2014 to 2.2% in 2015, indicating management is expecting to collect more of their accounts receivable in the future.

The valuation schedule indicates that the allowance balance was somewhat high compared to actual write-offs in 2013 and 2014. The firm charged very little to the bad expense account in 2014 and 2015 which would have resulted in higher net income in those years. The allowance account balance at the end of 2015 is now lower than the actual write-offs in 2015 and may be inadequate in the upcoming year.

WooHoo may have tightened their credit policy and is anticipating better collections in the future or they may be intentionally manipulating the account to report higher income in a year with poor earnings.

8. Given the relative magnitude of inventory, the accounting method chosen to value inventory and the associated measurement of cost of goods sold have a considerable impact on a company's financial position and operating results. The method chosen by a company to account for inventory determines the value of inventory on the balance sheet and the amount of expense recognized for cost of goods sold on the income statement. The significance of inventory accounting is underlined by the presence of inflation and by the implications for tax payments and cash flow. Inventory valuation is based on an *assumption* regarding the flow of goods and has nothing whatever to do with the *actual* order in which products are sold. The cost flow assumption is made in order to *match* the cost of products sold during an accounting period to the revenue generated from the sales and to assign a dollar value to the inventory remaining for sale at the end of the accounting period.

9. Total units available for sale	430
Units sold	<u>260</u>
Units in ending inventory	170

Cost of units purchased:

100 units x \$25 =	\$2,500
80 units x \$26 =	\$2,080
160 units x \$23 =	\$3,680
<u>90 units x \$24 =</u>	<u>\$2,160</u>
430 units	\$10,420

a. Weighted average cost per unit:

$$\frac{\$10,420}{430} = \$24.2325$$

$$\text{COGS} = \$24.2325 \times 260 \text{ units} = \$ 6,300$$

$$\text{EI} = \$24.2325 \times 170 \text{ units} = \$ 4,120$$

$$\text{Total goods available for sale} = \$10,420$$

b. FIFO

COGS:

100@\$25 =	\$ 2,500
80@\$26 =	\$ 2,080
<u>80@\$23 =</u>	<u>\$ 1,840</u>
<u>260 units</u>	<u>\$6,420</u>

EI:

90@\$24 =	\$ 2,160
<u>80@\$23 =</u>	<u>\$ 1,840</u>
<u>170 units</u>	<u>\$ 4,000</u>

$$\text{Check answer: COGS} \quad \$ 6,420$$

$$+ \text{EI} \quad \$ 4,000$$

$$\text{Total goods available} \quad \$10,420$$

c. LIFO

COGS:

90@\$24 =	\$ 2,160
160@\$23 =	\$ 3,680
<u>10@\$26 =</u>	<u>\$ 260</u>
<u>260 units</u>	<u>\$6,100</u>

EI:

100@\$25 =	\$2,500
<u>70@\$26 =</u>	<u>\$1,820</u>
<u>170 units</u>	<u>\$4,320</u>

$$\text{Check answer: COGS} \quad \$ 6,100$$

$$+ \text{EI} \quad \$ 4,320$$

Total goods available	<u>\$10,420</u>
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10. Total units available for sale	59
Units sold	<u>40</u>
Units in ending inventory	19

Cost of units purchased:

8 units x \$ 8 =	\$ 64
15 units x \$ 9 =	\$135
24 units x \$11 =	\$264
<u>12 units x \$13 =</u>	<u>\$156</u>
59 units	\$619

a. Weighted average cost per unit:

$$\frac{\$619}{59} = \$10.4915$$

COGS = \$10.4915 x 40 units = \$ 420

EI = \$10.4915 x 19 units = \$ 199

Total goods available for sale = \$ 619

b. FIFO

COGS:

8@\$ 8 =	\$ 64
15@\$ 9 =	\$ 135
<u>17@\$11 =</u>	<u>\$ 187</u>
40 units	<u>\$ 386</u>

EI:

7@\$11 =	\$ 77
<u>12@\$13 =</u>	<u>\$ 156</u>
19 units	<u>\$ 233</u>

Check answer: COGS \$ 386

+EI \$ 233

Total goods available \$ 619

c. LIFO

COGS:

12@\$13 =	\$ 156
24@\$11 =	\$ 264
<u>4@\$ 9 =</u>	<u>\$ 36</u>
40 units	<u>\$ 456</u>

EI:

8@\$8 =	\$ 64
<u>11@\$9 =</u>	<u>\$ 99</u>
19 units	<u>\$ 163</u>

Check answer: COGS \$ 456

+EI \$ 163

Total goods available \$ 619

11. a. $\frac{\$100,000}{8 \text{ years}} = \$12,500 \text{ per year}$

Book value = $\$100,000 - \$12,500 = \$87,500$

b. $\$100,000 \times (2 \times .125) = \$25,000$

Book value = $\$100,000 - \$25,000 = \$75,000$

12. a. $\frac{\$300,000}{5 \text{ years}} = \$60,000 \text{ per year}$

b. $\$300,000 - 60,000 - 60,000 = \$180,000$

c. Deferred tax liability.

d. $\$72,000 - 60,000 = \$12,000$

13. Accounts payable are short-term obligations that arise from credit extended by suppliers for the purchase of goods and services. Short-term debt (also referred to as notes payable) consists of obligations in the form of promissory notes to suppliers or financial institutions due in one year or less. When a firm has bonds, mortgages, or other forms of long-term debt outstanding, the portion of the principal that will be repaid during the upcoming year is classified as a current liability. Accrued liabilities result from the recognition of an expense in the accounting records prior to the actual payment of cash. Companies that are paid in advance for services or products record a liability referred to as unearned revenue on the receipt of cash.

14. Long-term notes payable are contractual agreements between borrower and lender (generally a bank) which designate the principal and interest repayment schedule and other conditions of the loan. Mortgages are loan agreements secured by real estate. Debentures are unsecured debt backed by the company's general credit standing. Bonds payable are financial instruments used to raise cash which are traded in capital markets. Bonds are generally issued in denominations of \$1,000 (face value or maturity value) and have a stated interest rate. Since bonds are traded on markets, the issue price investors are willing to pay may be more or less than the face or maturity value. Convertible debt is debt in the form of bonds

or notes that allows the investor or lender the opportunity to exchange a company's debt for common stock of that company. The terms of the agreement are specified in a document referred to as the bond indenture. The conversion price, or dollar value at which the debt may be converted into common stock, is generally set at an amount higher than the current market price of the firm's stock when the debt is issued.

15.

<u>Assets</u>		<u>Liabilities and stockholders' equity</u>	
Current assets		Current liabilities	
Cash	3%	Accounts payable	17
Short-term investments	5	Current portion of	
Accounts receivable	19	long-term debt	<u>7</u>
Inventory	24	Current liabilities	24%
Prepaid expenses	1	Long-term liabilities	
Deferred taxes, current	<u>4</u>	Long-term debt	<u>28</u>
Total current assets	56%	Total liabilities	52%
Long-term assets		Stockholders' equity	
Property & equipment	31	Common stock and PIC	30
Goodwill	7	Retained earnings	<u>18</u>
Long-term investments	5	-	
Other assets	<u>1</u>	Total stockholders' equity	<u>48%</u>
Total assets	<u>100%</u>	Total liabilities and equity	<u>100%</u>

16. By looking at the common size balance sheet, one can see that there have been structural changes in the components of the balance sheet equation. Cash and other assets have decreased, while accounts receivable, inventory and property, plant and equipment have increased. The company appears to have used cash to purchase property, plant and equipment. The 8% decline in current liabilities is a result of a decrease in short-term debt. Long-term debt has increased so the firm is using more permanent financing to support their assets. Retained earnings has increased which could be due to an increasing net income.

