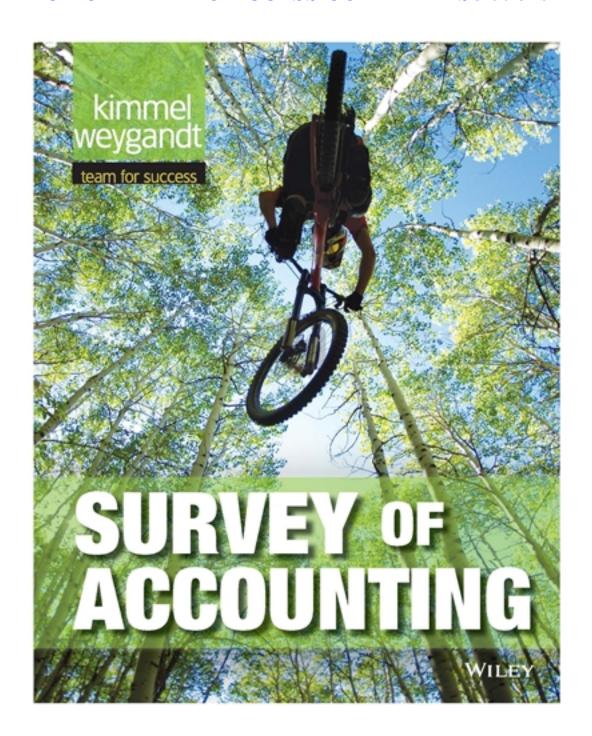
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Solutions

CHAPTER 2

A Further Look at Financial Statements

Learning Objectives

- 1. Identify the sections of a classified balance sheet.
- 2. Use ratios to evaluate a company's profitability, liquidity, and solvency.

Summary of Questions by Learning Objectives and Bloom's Taxonomy

Item	LO	ВТ	Item	LO	ВТ	Item	LO	ВТ	Item	LO	BT	Item	LO	BT
Questions														
1.	1	K	5.	1	K	9.	2	С						
2.	1	K	6.	2	С	10.	2	K						
3.	1	С	7.	2	K	11.	2	С						
4.	1	С	8.	2	С	12.	1	С						
Brief Exercises														
1.	1	K	3.	2	AP	5.	2	AP						
2.	1	AP	4.	2	AP									
						Do It	! Exer	cises						
1a.	1	AP	1b.	1	AP	2.	2	AP						
						Е	xercis	es						
1.	1	AP	4.	1	AP	7.	2	AP	10.	2	AP			
2.	1	AP	5.	1	AP	8.	1, 2	AP	11.	2	AP			
3.	1	AP	6.	1	AP	9.	2	AP						
						Prob	lems:	Set A						
1.	1	AP	3.	1	AP	5.	2	AP	7.	2	AP			
2.	1	AP	4.	2	AN	6.	2	AP						

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Prepare a classified balance sheet.	Simple	10–20
2A	Prepare financial statements.	Moderate	20–30
3A	Prepare financial statements.	Moderate	20–30
4A	Compute ratios; comment on relative profitability, liquidity, and solvency.	Moderate	20–30
5A	Compute and interpret liquidity, solvency, and profitability ratios.	Simple	10–20
6A	Compute and interpret liquidity, solvency, and profitability ratios.	Moderate	15–25
7A	Compute ratios and compare liquidity, solvency, and profitability for two companies.	Moderate	15–25

ANSWERS TO QUESTIONS

- 1. A company's operating cycle is the average time that is required to go from cash to cash in producing revenue.
- LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Measurement
 - Current assets are assets that a company expects to convert to cash or use up within one year of the balance sheet date or the company's operating cycle, whichever is longer. Current assets are listed in the order in which they are expected to be converted into cash.
- LO 1 BT: K Diff: E TOT: 1 min. AACSB: None AICPA FC: Reporting
 - 3. Long-term investments are investments in stocks and bonds of other companies where the conversion into cash is not expected within one year or the operating cycle, whichever is longer and plant assets not currently in operational use. Property, plant, and equipment are tangible resources of a relatively permanent nature that are being used in the business and not intended for sale.
- LO 1 BT: C Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting
 - 4. Current liabilities are obligations that will be paid within the coming year or operating cycle, whichever is longer. Long-term liabilities are obligations that will be paid after one year.
- LO 1 BT: C Diff: M TOT: 1 min. AACSB: None AICPA FC: Reporting
- 5. The two parts of stockholders' equity and the purpose of each are: (1) **Common stock** is used to record investments of assets in the business by the owners (stockholders). (2) **Retained earnings** is used to record net income retained in the business.
- LO 1 BT: K Diff: M TOT: 2 min. AACSB: None AICPA FC: Reporting
- **6.** (a) Geena is not correct. There are three characteristics: liquidity, profitability, and solvency.
 - (b) The three parties are not primarily interested in the same characteristics of a company. Short-term creditors are primarily interested in the liquidity of the company. In contrast, long-term creditors and stockholders are primarily interested in the profitability and solvency of the company.
- LO 2 BT: C Diff: M TOT: 3 min. AACSB: None AICPA FC: Reporting
- **7.** (a) Liquidity ratios: Working capital and current ratio.
 - (b) Solvency ratios: Debt to assets and free cash flow.
 - (c) Profitability ratio: Earnings per share.
- LO 2 BT: K Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

8. Debt financing is riskier than equity financing because debt must be repaid at specific points in time, whether the company is performing well or not. Thus, the higher the percentage of assets financed by debt, the riskier the company.

LO 2 BT: C Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

- **9.** (a) Liquidity ratios measure the short-term ability of the company to pay its maturing obligations and to meet unexpected needs for cash.
 - (b) Profitability ratios measure the income or operating success of a company for a given period of time.
 - (c) Solvency ratios measure the company's ability to survive over a long period of time.

LO 2 BT: K Diff: E TOT: 2 min. AACSB: None AICPA FC: Reporting

- **10.** (a) The increase in earnings per share is good news because it means that profitability has improved.
 - (b) An increase in the current ratio signals good news because the company improved its ability to meet maturing short-term obligations.
 - (c) The increase in the debt to assets ratio is bad news because it means that the company has increased its obligations to creditors and has lowered its equity "buffer."
 - (d) A decrease in free cash flow is bad news because it means that the company has become less solvent. The higher the free cash flow, the more solvent the company.

LO 2 BT: AN Diff: M TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

- **11.** (a) The debt to assets ratio and free cash flow indicate the company's ability to repay the face value of the debt at maturity and make periodic interest payments.
 - (b) The current ratio and working capital indicate a company's liquidity and short-term debt-paying ability.
 - (c) Earnings per share indicates the earning power (profitability) of an investment.

LO 2 BT: C Diff: M TOT: 3 min. AACSB: None AICPA FC: Reporting

12. At September 27, 2014 Apple's largest current asset was Cash and cash equivalents of \$14,557 million, its largest current liability is Accounts payable of \$16,459 million and its largest item under "Assets" was Property and equipment, net of \$16,967 million.

LO 1 BT: AN Diff: M TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 2-1

CLAccounts payableCLIncome taxes payableCAAccounts receivableLTIInvestment in long-term bondsPPEAccumulated depreciationPPELandPPEBuildingsCAInventoryCACashIAPatentIAGoodwillCASupplies

LO 1 BT: K Difficulty: Easy TOT: 4 min. AACSB: None AICPA FC: Reporting

BRIEF EXERCISE 2-2

CHIN COMPANY Partial Balance Sheet

Current assets	
Cash	\$10,400
Debt investments	8,200
Accounts receivable	14,000
Supplies	3,800
Prepaid insurance	2,600
Total current assets	\$39,000

LO 1 BT: AP Difficulty: Medium TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

BRIEF EXERCISE 2-3

Earnings per share = $\frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shares outstanding}}$ $= \frac{\$220 \text{ million} - \$0}{333 \text{ million shares}} = \$.66 \text{ per share}$

[(Net inc. – Pref. div.) ÷ Ave. com. shares outstanding]
LO 2 BT: AP Difficulty: Easy TOT: 2 min. AACSB: Analytic AICPA FC: Reporting

BRIEF EXERCISE 2-4

Working capital = Current assets - Current liabilities

Current assets \$102.5 million
Current liabilities (201.2) million
Working capital (\$98.7) million

(Current assets - Current liab.)

Current ratio:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$102,500,000}{\$201,200,000}$$

= .51:1

(Current assets + Current liab.)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

BRIEF EXERCISE 2-5

(a) Current ratio $\frac{$262,787}{$293,625} = 0.89:1$ Current liabilities (Current assets ÷ Current liab.)

(b) Debt to assets ratio $\frac{\text{Total liabilities}}{\text{Total assets}} = 85.5\%$ $\frac{\text{Total assets}}{\text{(Tot. liab. ÷ Tot. assets)}}$

(c) Free cash flow
(Net cash provided by operating activities – capital expenditures – dividends paid)

\$62,300 - \$24,787 - \$12,000 = \$25,513

(Net cash from oper. act. - Cap. expend. - Div. paid)

LO 2 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

SOLUTIONS TO DO IT! EXERCISES

DO IT! 2-1a

MYLAR CORPORATION Balance Sheet (partial) December 31, 2017

Assets		
Current assets		
Cash	\$ 13,000	
Accounts receivable	22,000	
Inventory	58,000	
Supplies	7,000	
Total current assets		\$100,000
Property, plant, and equipment		
Equipment	180,000	
Less: Accumulated depreciation—		
equipment	<u>50,000</u>	130,000
Total assets		\$230,000

(Cash + Accts. rec. + Inv. + Sup. + Equip. - Acc. dep.)

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

DO IT! 2-1b

<u>IA</u> Trademarks	<u>CA</u> Inventory
CL Notes payable (current)	PPE Accumulated depreciation
NA Interest revenue	<u>PPE</u> Land
CL Income taxes payable	SE Common stock
LTI Debt investments (long-term)	NA Advertising expense
CL Unearned sales revenue	LTL Mortgage payable (due in 3 years)

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

DO IT! 2-2

(a)
$$2017$$
 2016 $(\$80,000 - \$6,000) \over (40,000 + 75,000)/2} = \1.29 $(\$40,000 - \$6,000) \over (30,000 + 40,000)/2} = \0.97

[(Net inc. - Pref. div.) ÷ Ave. com. shares outstanding]

Nguoi's profitability, as measured by the amount of income available for each share of common stock, increased by 33 percent ((\$1.29 – \$0.97)/\$0.97) during 2017. Earnings per share should not be compared across companies because the number of shares issued by companies varies widely. Thus, we cannot conclude that Nguoi Corporation is more profitable than Matisse Corporation based on its higher EPS in 2017.

Net Income – Peferred Dividend
Average Common Shares Outstanding

(b)
$$\frac{2017}{\$54,000} = 2.45:1$$
 $\frac{\$36,000}{\$30,000} = 1.20:1$

(Current asets + Current liab.)

<u>Current assets</u> Current liabilities

Debt to
$$\frac{$72,000}{$240,000} = 30\%$$
 $\frac{$100,000}{$205,000} = 49\%$

(Tot. assets ÷ Tot. assets)

Total liabilities Total assets

The company's liquidity, as measured by the current ratio improved from 1.20:1 to 2.45:1. Its solvency also improved, because the debt to assets ratio declined from 49% to 30%.

DO IT! 2-2 (Continued)

(c)

Free cash flow 2017: \$90,000 - \$6,000 - \$3,000 - \$27,000 = \$54,000

2016: \$56,000 - \$6,000 - \$1,500 - \$12,000 = \$36,500

The amount of cash generated by the company above its needs for dividends and capital expenditures increased from \$36,500 to \$54,000.

(Net cash from oper. act. - Pref. div. - Com. div. - Expend. for prop., plant and equip. = Free cash flow)

LO 1 BT: AP Difficulty: Easy TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

SOLUTIONS TO EXERCISES

EXERCISE 2-1

CL Accounts payable CA Inventory

<u>CA</u> Accounts receivable <u>CA</u> Stock investments

PPE Accumulated depreciation—equip. PPE Land (in use)

PPE Buildings LTL Mortgage payable

CACashCASuppliesCLInterest payablePPEEquipmentIAGoodwillCAPrepaid rent

CA Prepaid ref

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

EXERCISE 2-2

<u>CA</u> Prepaid advertising <u>IA</u> Patents

PPEEquipmentLTLBonds payableIATrademarksSECommon stockCLSalaries and wages payablePPEAccumulated

CL Income taxes payable depreciation—equipment

SE Retained earnings <u>CL</u> Unearned sales revenue

<u>CA</u> Accounts receivable <u>CA</u> Inventory

LTI Land (held for future use)

LO 1 BT: AP Difficulty: Easy TOT: 3 min. AACSB: Analytic AICPA FC: Reporting

THE BOEING COMPANY Partial Balance Sheet December 31, 2017 (in millions)

Assets		
Current assets		
Cash	\$ 9,215	
Debt investments	2,008	
Accounts receivable	5,785	
Notes receivable	368	
Inventory	16,933	
Total current assets		\$34,309
Long-term investments		
Notes receivable		5,466
Property, plant, and equipment		,
Buildings	21,579	
Less: Accumulated depreciation—buildings	<u>12,795</u>	8,784
Intangible assets		
Patents		12,528
Total assets		\$61,087

(Current assets + Long-term invest. + Prop., plant, and equip. + Intang. assets)

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

H. J. HEINZ COMPANY Partial Balance Sheet April 30, 2017 (in thousands)

Asset	s		
Current assets			
Cash		\$ 373,145	
Accounts receivable		1,171,797	
Inventory		1,237,613	
Prepaid insurance		125,765	
Total current assets			\$ 2,908,320
Property, plant, and equipment			
Land		76,193	
Buildings	\$4,033,369		
Less: Accumulated depreciation—			
Buildings	2,131,260	1,902,109	1,978,302
Intangible assets			
Goodwill		3,982,954	
Trademarks		757,907	4,740,861
Total assets			\$ 9,627,483

(Current assets + Prop., plant, and equip. + Intang. assets)

LO 1 BT: AP Difficulty: Medium TOT: 5 min. AACSB: Analytic AICPA FC: Reporting

LONGHORN COMPANY Balance Sheet December 31, 2017

Assets			
Current assets			
Cash		\$11,840	
Accounts receivable		12,600	
Prepaid insurance		3,200	
Total current assets			\$ 27,640
Property, plant, and equipment			
Land		61,200	
Buildings	\$105,800	•	
Less: Accumulated depreciation—	,		
buildings	45,600	60,200	
Equipment	82,400	•	
Less: Accumulated depreciation—	•		
equipment	18,720	63,680	185,080
Total assets			\$212,720
(Tot. current assets + Tot. prop., plant, and equip.)			
Liabilities and Stockho	ldore' Fauit	hv	
Current liabilities	nders Equi	Ly	
Accounts payable		\$ 9,500	
Current maturity of note payable		13,600	
Interest payable		3,600	
Total current liabilities			\$ 26,700
Long-term liabilities			Ψ 20,100
Note payable (\$93,600 – \$13,600)			80,000
Total liabilities			106,700
Stockholders' equity			100,100
Common stock		60,000	
Retained earnings			
(\$40,000 + \$6,020*)		46,020	
Total stockholders' equity			106,020
Total liabilities and stockholders'			
equity			\$212,720
(Tot. current liab. + Note pay. + Com. stock + Ret. earn.)			
*Net income = \$14,700 - \$780 - \$5,300 - \$2	600 = \$6.02	0	
1131 111301113 - ψ1-1,1 30 - ψ1 30 - ψ0,300 - ψ2	,500 - 40,02		

LO 1 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

TEXAS INSTRUMENTS, INC. Balance Sheet December 31, 2017

(in millions)

Assets		
Current assets		
Cash	\$ 1,182	
Debt investments	1,743	
Accounts receivable	1,823	
Inventory	1,202	
Prepaid rent	<u> 164</u>	
Total current assets		\$ 6,114
Long-term investments		
Stock investments		637
Property, plant, and equipment		
Equipment	6,705	
Less: Accumulated depreciation—equipment	<u>3,547</u>	3,158
Intangible assets		
Patents		2,210
Total assets		<u>\$12,119</u>
(Tot. current assets + L-T invest. + Prop., plant and equip. + Intang. assets)		
Liabilities and Stockholders' Equity	y	
Current liabilities		
Accounts payable	\$1,459	
Income taxes payable	<u> 128</u>	
Total current liabilities		\$ 1,587
Long-term liabilities		
Notes payable		<u>810</u>
Total liabilities		2,397
Stockholders' equity		
Common stock	2,826	
Retained earnings	<u>6,896</u>	
Total stockholders' equity		9,722
Total liabilities and stockholders' equity		<u>\$12,119</u>

(Tot. current liab. + Notes pay. + Tot. stock. equity)

LO 1 BT: AP Difficulty: Medium TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

(a) Earnings per share = $\frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common shares outstanding}}$

2017: $\frac{\$66,176,000-0}{(66,282,000+64,507,000)/2} = \1.01

2016: $\frac{\$54,587,000-0}{(73,139,000+66,282,000)/2} = \$.78$

[(Net inc. - Pref. div) ÷ Ave. com. shares outstanding]

- (b) Using net income (loss) as a basis to evaluate profitability, Callaway Golf's income improved by 21% [(\$66,176 \$54,587) ÷ 54,587] between 2016 and 2017. Its earnings per share increased by 29% [(\$1.01 \$0.78) ÷ \$0.78].
- (c) To determine earnings per share, dividends on preferred stock are subtracted from net income, but dividends on common stock are not subtracted.

LO 2 BT: AP Difficulty: Medium TOT: 7 min. AACSB: Analytic AICPA FC: Reporting

(a)

FAIRVIEW CORPORATION Income Statement For the Year Ended July 31, 2017

Revenues		
Service revenue	\$66,100	
Rent revenue	8,500	
Total revenues		\$74,600
Expenses		
Salaries and wages expense	57,500	
Supplies expense	15,600	
Depreciation expense	4,000	
Total expenses		77,100
Net loss		<u>\$ (2,500</u>)

(Tot. rev. - Tot. exp.)

FAIRVIEW CORPORATION Retained Earnings Statement For the Year Ended July 31, 2017

Retain		\$34,000	
Less:	Net loss	\$2,500	
	Dividends	4,000	6,500
	ed earnings, July 31, 2014		\$27,500

(Beg. ret. earn. - Net loss - Div.)

(b)

FAIRVIEW CORPORATION Balance Sheet July 31, 2017

Assets		
Current assets		
Cash	\$29,200	
Accounts receivable	9,780	
Total current assets	·	\$38,980
Property, plant, and equipment		
Equipment	18,500	
Less: Accumulated depreciation—	•	
equipment	6,000	12,500
Total assets		\$51,480
(Tot. current assets + Tot. prop., plant and equip.)		
Liabilities and Stockholders' E	quity	
Current liabilities	. ,	
Accounts payable	\$ 4,100	
Salaries and wages payable	2,080	
Total current liabilities		\$ 6,180
Long-term liabilities		. ,
Notes payable		1,800
Total liabilities		7,980
Stockholders' equity		,
Common stock	16,000	
Retained earnings	27,500	
Total stockholders' equity		43,500
Total liabilities and stockholders' equity		\$51,480
(Tot. current liab. + Notes pay. + Tot. stock. equity)		2 - 7 - 9 -

(c) Current ratio =
$$\frac{$38,980}{$6,180}$$
 = 6.3:1

(Current assets + Current liab.)

Debt to assets ratio =
$$\frac{$7,980}{$51,480}$$
 = 15.5%

(Tot. liab. ÷ Tot. assets)

EXERCISE 2-8 (Continued)

(d) The current ratio would not change because equipment is not a current asset and a 5-year note payable is a long-term liability rather than a current liability.

The debt to assets ratio would increase from 15.5% to 39.1%*.

Looking solely at the debt to assets ratio, I would favor making the sale because Fairview's debt to assets ratio of 15.5% is very low. Looking at additional financial data, I would note that Fairview reported a significant loss for the current year which would lead me to question its ability to make interest and loan payments (and even remain in business) in the future. I would not make the proposed sale unless Fairview convinced me that it would be capable of earnings in the future rather than losses.

I would also consider making the sale but requiring a substantial downpayment and smaller note.

LO 1, 2 BT: AP Difficulty: Hard TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

EXERCISE 2-9

(a)		Beginning of Year	End of Year	
	Working capital	\$3,361 - \$1,635 = \$1,726	\$3,217 - \$1,601 = \$1,616	
	Current ratio	$\frac{\$3,361}{\$1,635} = 2.06:1$	$\frac{\$3,217}{\$1,601} = 2.01:1$	

(Current assets - Current liab.) and (Current assets + Current liab.)

(b) Nordstrom's liquidity decreased slightly during the year. Its current ratio decreased from 2.06:1 to 2.01:1. Also, Nordstrom's working capital decreased by \$110 million.

EXERCISE 2-9 (Continued)

(c) Nordstrom's current ratio at both the beginning and the end of the recent year exceeds Best Buy's current ratio for 2014 (and 2013). Nordstrom's end-of-year current ratio (2.01) exceeds Best Buy's 2014 current ratio (1.41*). Nordstrom would be considered much more liquid than Best Buy for the recent year.

LO 2 BT: AP Difficulty: Medium TOT: 10 min. Difficulty: Analytic AICPA FC: Reporting

EXERCISE 2-10

(a) Current ratio =
$$\frac{$60,000}{$30,000}$$
 = 2.0:1

(Current assets + Current assets)

Working capital =
$$$60,000 - $30,000 = $30,000$$

(Current assets - Current liab.)

(b) Current ratio =
$$\frac{$40,000^*}{$10,000^{**}}$$
 = 4.0:1

(Current assets + Current liab.)

Working capital =
$$$40,000 - $10,000 = $30,000$$

(Current assets - Current liab.)

(c) Liquidity measures indicate a company's ability to pay current obligations as they become due. Satisfaction of current obligations usually requires the use of current assets.

If a company has more current assets than current liabilities it is more likely that it will meet obligations as they become due. Since working capital and the current ratio compare current assets to current liabilities, both are measures of liquidity.

EXERCISE 2-10 (Continued)

Payment of current obligations frequently requires cash. Neither working capital nor the current ratio indicate the composition of current assets. If a company's current assets are largely comprised of items such as inventory and prepaid expenses it may have difficulty paying current obligations even though its working capital and current ratio are large enough to indicate favorable liquidity. In Myeneke's case, payment of \$20,000 of accounts payable will leave only \$5,000 cash. Since salaries payable will require \$10,000, the company may need to borrow in order to make the required payment for salaries and wages.

(d) The CFO's decision to use \$20,000 of cash to pay off accounts payable is not in itself unethical. However, doing so just to improve the year-end current ratio could be considered unethical if this action misled creditors. Since the CFO requested preparation of a "preliminary" balance sheet before deciding to pay off the liabilities he seems to be "managing" the company's financial position, which is usually considered unethical.

LO 2 BT: AP Difficulty: Medium TOT: 15 min. Difficulty: Analytic AICPA FC: Reporting

		2017	2016
(a)	Current ratio	\$925,359 \$401,763 = 2.30 : 1	$\frac{\$1,020,834}{\$376,178} = 2.71:1$
	(Current assets ÷ Current liab.)	
(b)	Earnings per sha	re $\frac{\$179,061}{205,169} = \0.87	$\frac{\$400,019}{216,119} = \1.85
	[(Net inc Pref. div.) ÷ Ave. o	om. shares outstanding]	
(c)	Debt to assets ratio	\$554,645 = 28.2%	\$527,216 = 28.2%
		\$1,963,676	\$1,867,680
	(Tot. liab. ÷ Tot. assets)		
(d)	Free cash flow	\$302,193 - \$265,335 - \$82,394	\$464,270 - \$250,407 - \$80,796

(Net cash from oper. act. - Cap. expend. - Com. div.)

= (\$45,536)

(e) Using the debt to assets ratio and free cash flow as measures of solvency produces deteriorating results for American Eagle Outfitters. Its debt to assets ratio remained constant from 2016 to 2017. However, its free cash flow decreased by 134% indicating a significant decline in solvency.

= \$133,067

(f) In 2016 American Eagle Outfitters's cash provided by operating activities was greater than the cash used for capital expenditures and dividend payments. It was generating plenty of cash from operations to cover its investing needs. In 2017, American Eagle Outfitters experienced negative free cash flow. This deficiency could have been covered by issuing stock or debt.

LO 2 BT: AP Difficulty: Medium TOT: 15 min. Difficulty: Analytic AICPA FC: Reporting

SOLUTIONS TO PROBLEMS

PROBLEM 2-1A

YAHOO! INC.
Balance Sheet
December 31, 2017
(Amounts are in millions)

Assets		
Current assets		
Cash	\$2,292	
Debt investments	1,160	
Accounts receivable	1,061	
Prepaid rent	233	
Total current assets		\$ 4,746
Long-term investments		. ,
Stock investments		3,247
Property, plant, and equipment		·
Equipment	1,737	
Less: Accumulated depreciation—		
equipment	<u> 201</u>	1,536
Intangible assets		
Goodwill	3,927	
Patents	234	4,161
Total assets		\$13,690

(Tot. current assets + L-T. Invest. + Tot. prop., plant, and equip. + Tot. intang. assets)

PROBLEM 2-1A (Continued)

Liabilities and Stockholders' Equity

,,,	
\$ 152	
413	
	\$ 565
	<u>734</u>
	1,299
6,283	
6,108	
	12,391
	<u>\$13,690</u>
	6,283

(Tot. current liab. + L-T. liabl. + Com. stock + Ret. earn.)

LO 1 BT: AP Difficulty: Medium TOT: 12 min. AACSB: Analytic AICPA FC: Measurement

PROBLEM 2-2A

MARTIN CORPORATION Income Statement For the Year Ended December 31, 2017

Revenues		
Service revenue		\$68,000
Expenses		
Salaries and wages expense	\$37,000	
Depreciation expense	3,600	
Insurance expense	2,200	
Utilities expense	2,000	
Maintenance and repairs expense	1,800	
Total expenses		46,600
Net income		<u>\$21,400</u>
(Serv. rev. – Tot. exp.)		

MARTIN CORPORATION Retained Earnings Statement For the Year Ended December 31, 2017

Retained earnings, January 1, 2017	
Add: Net income	21,400
	52,400
Less: Dividends	12,000
Retained earnings, December 31, 2017	\$40,400

(Beg. ret. earn. + Net inc. - Div.)

PROBLEM 2-2A (Continued)

MARTIN CORPORATION Balance Sheet December 31, 2017

Assets		
Current assets		
Cash	\$10,100	
Accounts receivable	11,700	
Prepaid insurance	3,500	
Total current assets		\$25,300
Property, plant, and equipment		
Equipment	66,000	
Less: Accumulated depreciation—equipment	17,600	48,400
Total assets		\$73,700
(Tot. current assets + Equip. – Acc. deprequip.) Liabilities and Stockholders' Equi	itv	
Current liabilities	,	
Accounts payable	\$18,300	
Salaries and wages payable	3,000	
Total current liabilities		\$21,300
Stockholders' equity		. ,
Common stock	12,000	
Retained earnings	40,400	
Total stockholders' equity		52,400
Total liabilities and stockholders' equity		\$73,700

(Tot. current liab. + Com stock + Ret. earn.)

LO 1 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement

PROBLEM 2-3A

LAZURIS ENTERPRISES (a) **Income Statement** For the Year Ended April 30, 2017

Sales revenue		\$5,100
Expenses		
Cost of goods sold	\$1,060	
Salaries and wages expense	700	
Interest expense	400	
Depreciation expense	335	
Insurance expense	210	
Income tax expense	165	
Total expenses		2,870
Net income		\$2,230
(Sales rev. – Tot. exp.)		
LAZURIS ENTERPRISES		

Retained Earnings Statement For the Year Ended April 30, 2017

Retained earnings, May 1, 2013	\$1,600
Add: Net income	2,230
	3,830
Less: Dividends	325
Retained earnings, April 30, 2014	<u>\$3,505</u>

(Beg. ret. earn. + Net inc. - Div.)

PROBLEM 2-3A (Continued)

(b) LAZURIS ENTERPRISES Balance Sheet April 30, 2017

Assets		
Current assets		
Cash	\$1,270	
Stock investments	1,200	
Accounts receivable	810	
Inventory	967	
Prepaid insurance	<u>60</u>	
Total current assets		\$4,307
Property, plant, and equipment		
Land	3,100	
Equipment \$2,420		
Less: Accumulated		
depreciation—equipment <u>670</u>	<u>1,750</u>	<u>4,850</u>
Total assets		<u>\$9,157</u>
(Tot. current assets + Land + Equip. – Acc. deprequip.)		
Liabilities and Stockholders' Equity		
Current liabilities		
Notes payable	\$ 61	
Accounts payable	834	
Salaries and wages payable	222	
Income taxes payable	<u> 135</u>	
Total current liabilities		\$1,252
Mortgage payable		<u>3,500</u>
Total liabilities		4,752
Stockholders' equity		
Common stock	900	
Retained earnings	<u>3,505</u>	
Total stockholders' equity		4,405
Total liabilities and stockholders' equity		<u>\$9,157</u>
(Tot. current liab. + Mort. pay. + Com. stock + Ret. earn.)		

LO 1 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Measurement

PROBLEM 2-4A

- (a) Loeb Company's net income for 2017 is \$248,000 (\$1,800,000 -\$1,175,000 - \$283,000 - \$9,000 - \$85,000). Its earnings per share is \$3.10 (\$248,000 ÷ 80,000 shares outstanding). Bowsh's net income for 2017 is \$142,200 (\$620,000 - \$340,000 - \$98,000 - \$3,800 - \$36,000). Its earnings per share is \$2.84 (\$142,200 ÷ 50,000 shares outstanding).
- (b) Loeb appears to be more liquid. Loeb's 2017 working capital of \$340,875 (\$407,200 - \$66,325) is more than twice as high as Bowsh's working capital of \$156,620 (\$190,336 - \$33,716). In addition, Loeb's 2017 current ratio of 6.1:1 (\$407,200 ÷ \$66,325) is higher than Bowsh's current ratio of 5.6:1 ($$190,336 \div $33,716$).
- (c) Loeb appears to be slightly more solvent. Loeb's 2017 debt to assets ratio of 18.6% (\$174,825 ÷ \$939,200)^a is lower than Bowsh's ratio of 22.5% (\$74,400 ÷ \$330,064)b. The lower the percentage of debt to assets, the lower the risk is that a company may be unable to pay its debts as they come due.

Another measure of solvency, free cash flow, also indicates that Loeb is more solvent. Loeb had \$12,000 (\$138,000 - \$90,000 - \$36,000) of free cash flow while Bowsh had only \$1,000 (\$36,000 - \$20,000 - \$15,000).

a\$174,825 (\$66,325 + \$108,500) is Loeb's 2017 total liabilities. \$939,200 (\$407,200 + \$532,000) is Loeb's 2017 total assets.

b\$74,400 (\$33,716 + \$40,684) is Bowsh's 2017 total liabilities. \$330,064 (\$190,336 + \$139,728) is Bowsh's 2017 total assets.

LO 2 BT: AN Difficulty: Hard TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

PROBLEM 2-5A

(a) (i) Working capital = \$458,900 - \$195,500 = \$263,400.

(Current assets - Current liab.)

(ii) Current ratio = $\frac{$458,900}{$195,500}$ = 2.35:1.

(Current assets + Current liab.)

(iii) Free cash flow = \$190,800 - \$92,000 - \$31,000 = \$67,800

(Cash from oper. act. - Cap. expend. - Div. paid)

(iv) Debt to assets ratio = $\frac{$395,500}{$1,034,200}$ = 38.2%.

(Tot. liab. ÷ Tot. assets)

(v) Earnings per share = $\frac{$153,100}{50,000 \text{ shares}}$ = \$3.06.

[(Net inc. - Pref. div.) ÷ Ave. com. shares outstanding)

(b) During 2017, the company's current ratio increased from 1.65:1 to 2.35:1 and its working capital increased from \$160,500 to \$263,400. Both measures indicate an improvement in liquidity during 2017.

The company's debt to assets ratio increased from 31.0% in 2016 to 38.2% in 2017 indicating that the company is less solvent in 2017. Another measure of solvency, free cash flow, increased from \$48,700 to \$67,800. This suggests an improvement in solvency, thus we have conflicting measures of solvency.

Earnings per share decreased from \$3.15 in 2016 to \$3.06 in 2017. This indicates a decline in profitability during 2017.

LO 2 BT: AP Difficulty: Medium TOT: 15 min. AACSB: Analytic AICPA FC: Reporting

PROBLEM 2-6A

2016

2017

(a) Earnings per share.

$$\frac{\$60,000}{30,000\,\text{shares}} = \$2.00$$

$$\frac{\$70,000}{33,000\,\text{shares}} = \$2.12$$

[(Net inc. - Pref. div.) ÷ Ave. com. shares outstanding]

(b) Working capital.

(Current assets - Current liab.)

(c) Current ratio.

$$\frac{\$155,000}{\$70,000} = 2.2:1$$

$$\frac{\$188,000}{\$75,000} = 2.5:1$$

(Current assets + Current liab.)

(d) Debt to assets ratio.

$$\frac{\$160,000}{\$685,000} = 23.4\%$$

$$\frac{\$155,000}{\$760,000} = 20.4\%$$

(Tot. liab. ÷ Tot. assets)

(e) Free cash flow. \$56,000 - \$38,000 - \$15,000 = \$3,000

(Cash from oper. act. - Cap. expend. - Div. pd.)

- (f) Net income and earnings per share have increased, indicating that the underlying profitability of the corporation has improved. The liquidity of the corporation as shown by the working capital and the current ratio has improved slightly. Also, the corporation improved its solvency by improving its debt to assets ratio as well as free cash flow.
- LO 2 BT: AP Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

PROBLEM 2-7A

	Ratio	Target	Wal-Mart
		(All Dollars are in Millions)	
(a)	Working capital	\$17,488 - \$10,512 = \$6,976	\$48,949 - \$55,390 = (\$6,441)
		(Current assets – Current liab.)	
(b)	Current ratio	1.66:1 (\$17,488 ÷ \$10,512)	.88:1 (\$48,949 ÷ \$55,390)
		(Current assets ÷ Current liab.)	
(c)	Debt to assets ratio	68.9% (\$30,394 ÷ \$44,106)	60% (\$98,144 ÷ \$163,429)
		(Tot. liab. ÷ Tot. assets)	
(d)	Free cash flow	\$4,430 - \$3,547 - \$465 = \$418	\$23,147 - \$11,499 - \$3,746 = \$7,902
		(Cash from oper. act. – Cap. expend. – Div. pd.)	
(0)	Familiana	$$2.86 = \frac{\$2,214}{774}$	$$3.39 = \frac{\$13,400}{3,951}$
(e)	Earnings per share	[(Net inc. – Pref. div.) ÷ Ave. com. shares outstanding)	

(f) The comparison of the two companies shows the following:

<u>Liquidity</u>—Target's current ratio of 1.66:1 is much better than Wal-Mart's .88:1 and Target has significantly higher working capital than Wal-Mart.

<u>Solvency</u>—Wal-Mart's debt to assets ratio is about 13% less than Target's and its free cash flow is much larger.

LO 2 BT: AP Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

FINANCIAL REPORTING PROBLEM

- Total current assets were \$68,531,000 at September 27, 2014, and (a) \$73,286,000 at September 28, 2013.
- (b) Current assets are properly listed in the order of liquidity. As you will learn in a later chapter, inventories are considered to be less liquid than receivables. Thus, they are listed below receivables and before prepaid expenses.
- The asset classifications are similar to the text: (a) current assets, (b) Long-term marketable securities, (c) property, plant, and equipment, and (d) intangibles.
- (d) Total current liabilities were \$63,448,000 at September 27, 2014, and \$43,658,000 at September 28, 2013.

LO 1 BT: AP Difficulty: Medium TOT: 8 min. AACSB: Analytic AICPA FC: Reporting

COMPARATIVE ANALYSIS PROBLEM

(a)		(\$ in thousands)	Columbia Sportswear	VFC
	1.	Working capital	\$1,266,041 - \$373,120 = \$892,921	\$4,185,854 – \$1,620,241 = \$2,565,613
			(Current assets – Current liab.)	
	2.	Current ratio	\$1,266,041 ÷ \$373,120 = 3.4:1	\$4,185,854 ÷ \$1,620,241 = 2.6:1
			(Current assets ÷ Current liab.)	
			\$436,975	\$4,349,258 * = 43.6%
	3.	Debt to assets ratio	\$1,792,209	\$9,980,140
			(Tot. liab. ÷ Tot. assets)	
	4.	Free cash flow	\$185,783 - \$60,283 - \$39,836 = \$85,664	\$1,697,629 - \$234,077 - \$478,933 = \$984,619
			(Cash from oper. act. – Cap. expend. – Div. pd.)	

^{*\$1,620,241 + \$1,423,581 + \$1,305,436}

(b) Liquidity

VFC appears much more liquid since it has about \$1,673 million more working capital than Columbia. But, looking at the current ratios, we see that Columbia's ratio is more than 1.3 times as large as VFC's.

Solvency

Based on the debt to assets ratio, Columbia is more solvent. Columbia's debt to assets ratio is significantly lower than VFC's and, therefore, Columbia would be considered better able to pay its debts as they come due.

Comparing free cash flow, VFC generates much more excess cash than Columbia—\$984.6 million versus \$85.7 million.

LO 2 BT: AN Difficulty: Hard TOT: 10 min. AACSB: Analytic AICPA FC: Reporting

CT 2-3 INTERPRETING FINANCIAL STATEMENTS

The percentage decrease in Gap's total assets during this period is calculated as:

$$\frac{\$7,065 - \$8,544}{\$8,544} = (17.3\%)$$

The average decrease per year can be approximated as:

$$\frac{17.3\%}{4 \text{ years}} = (4.3\%) \text{ per year}$$

(2017 Total assets - 2013 Total assets) ÷ 2013 Total assets)

- (b) Gap's working capital and current ratio decreased (2014), increased (2015 and 2016) and then decreased (2017) during this period, indicating a decline, an improvement and then another decline in liquidity. The current ratio is a better measure of liquidity because it provides a relative measure; that is, current assets compared to current liabilities. Working capital only tells us the net amount of current assets less current liabilities. It is hard to say whether a given amount of working capital is adequate or inadequate without knowing the size of the company.
- The debt to assets ratio suggests that Gap's solvency didn't change much during the period. Debt to assets was .39 in 2013, rose to .45 in 2014 and then came back down to .42 in 2017.
- (d) The earnings per share suggests that Gap's profitability improved significantly from 2013 to 2017, increasing from \$0.94 to \$1.89. However, based on the years shown, it appears that earnings varied a great deal during this period.

LO 2 BT: AN Difficulty: Hard TOT: 15 min. AACSB: Analytic AICPA FC: Reporting

REAL-WORLD FOCUS

CT 2-4

Answers will vary depending on the company chosen and the date.

LO 2 BT: AN Difficulty: Hard TOT: 20 min. AACSB: Analytic and Technology AICPA FC: Reporting

CT 2-5

Answers will vary depending on the company chosen and the date.

LO 1, 2 BT: E Difficulty: Hard TOT: 25 min. AACSB: Analytic, Technology, and Reflective Thinking AICPA FC: Reporting AICPA BB: Critical Thinking

RESEARCH CASE

- (a) Many large companies, big accounting firms, and accounting standard setters tend to favor a switch to IFRS because they believe that global accounting standards would save companies money by consolidating their bookkeeping. They also believe it would make it easier to raise capital around the world. In addition, investors would have less trouble comparing companies from different countries. They also feel that having international accounting standards would lead to an improvement in the enforcement of securities laws.
- (b) Many small companies are opposed to switching to IFRS because (1) they say that the switch would be very costly, and (2) because they don't have operations outside of the U.S., so they see any benefit to their company of using international standards.
- (c) It has been suggested that IFRS lacks standards that are specific to utility companies that U.S. GAAP contains.
- (d) Condorsement (a word invented by the SEC) represents a combination of convergence and endorsement. Under condorsement, U.S. standard setters would continue to work with international standard setters to try to reduce differences in standards. In addition, as new international standards are issued, U.S. standard setters would review those standards and consider whether to endorse them by absorbing them into U.S. GAAP.

LO 3 BT: AN Difficulty: Medium TOT: 20 min. AACSB: Analytic AICPA FC: Reporting

CT 2-7 DECISION MAKING ACROSS THE ORGANIZATION

The current ratio increase is a favorable indication as to liquidity, but alone tells little about the prospects of the client. From this ratio change alone, it is impossible to know the amount and direction of the changes in individual accounts, total current assets, and total current liabilities. Also unknown are the reasons for the changes.

The working capital increase is also a favorable indication as to liquidity, but again the amount and direction of the changes in individual current assets and current liabilities cannot be determined from this measure.

The increase in free cash flow is a favorable indicator for solvency. An increase in free cash flow means the company can replace assets, pay dividends, and have "free cash" available to pay down debt or expand operations.

The decrease in the debt to assets ratio is a favorable indicator for solvency and going-concern prospects. The lower the percentage of debt to assets, the lower the risk that a company may be unable to pay its debts as they come due. A decline in the debt to assets ratio is also a positive sign regarding going-concern potential.

The increase in net income is a favorable indicator for both solvency and profitability prospects although much depends on the quality of receivables generated from sales and how quickly they can be converted into cash. A significant factor here may be that despite a decline in sales the client's management has been able to reduce costs to produce this increase. Indirectly, the improved income picture may have a favorable impact on solvency and going-concern potential by enabling the client to borrow currently to meet cash requirements.

The earnings per share increase is a favorable indicator for profitability. A 109% (from \$1.15 to \$2.40) increase indicates a significant increase in net income and provides a favorable sign regarding going-concern potential.

LO 2 BT: E Difficulty: Hard TOT: 20 min. AACSB: Communication and Reflective Thinking AICPA PC: Interaction, Leadership, and Communication

COMMUNICATION ACTIVITY

B. P. Palmer To:

Accounting Major From:

Subject: **Financial Statement Analysis**

- (a) Ratios can be classified into three types, which measure three different aspects of a company's financial health:
 - Liquidity ratios—These measure a company's ability to pay its 1. current obligations.
 - Solvency ratios—These measure a company's ability to pay its 2. long-term obligations and survive over the long-term.
 - Profitability ratios—These measure the ability of the company to 3. generate a profit.
- (b) 1. Examples of liquidity measures are:

Working capital = Current assets - Current liabilities

 $Current ratio = \frac{Current assets}{Current liabilities}$

Examples of solvency measures are: 2.

Debt to assets ratio = $\frac{\text{Total liabilities}}{\text{Total assets}}$

Free cash flow = Cash provided by operating activities -**Capital expenditures – Cash dividends**

CT 2-8 (Continued)

3. Example of profitability measure:

(c) There are three bases for comparing a company's results:

The bases of comparison are:

- 1. Intracompany—This basis compares an item or financial relationship within a company in the current year with the same item or relationship in one or more prior years.
- 2. Industry averages—This basis compares an item or financial relationship of a company with industry averages (or norms).
- 3. Intercompany—This basis compares an item or financial relationship of one company with the same item or relationship in one or more competing companies.

LO 2 BT: AP Difficulty: Medium TOT: 18 min. AACSB: Communication AICPA PC: Communication

ETHICS CASE

- (a) The stakeholders in this case are: Boeing's management; CEO, public relations manager, Boeing's stockholders, McDonnell Douglas stockholders, other users of the financial statements; especially potential investors of the new combined company.
- (b) The ethical issues center around full disclosure of financial information. Management attempted to "time" the release of bad news in order to complete a merger that would have been revoked if cost overruns had been disclosed as soon as management became aware of them.
- (c) The periodicity assumption requires that financial results be reported on specific, predetermined dates.
 - The full disclosure principle requires that all circumstances and events that make a difference to financial statement users must be disclosed.
- (d) It is not ethical to "time" the release of bad news. GAAP requires that all significant financial information be released to allow users to make informed decisions.
- (e) Answers will vary. One possibility: Release the information regarding cost overruns as it became available. Describe the causes of such overruns and explain how Boeing would address them (probably by improving production methods to eliminate the inefficiencies alluded to in the text).
- (f) Investors and analysts should be aware that Boeing's management will probably "manage" information in the future in ways that will interfere with full disclosure.

LO 3 BT: E Difficulty: Hard TOT: 20 min. AACSB: Ethics AICPA FC: Measurement AICPA PC: Personal Demeanor

ALL ABOUT YOU

Answers will vary.

LO - BT: S Difficulty: Hard TOT: 30 min. AACSB: Communication and Reflective Thinking AICPA CC: Critical Thinking AICPA PC: Communication

PEOPLE, PLANET AND PROFIT

- (a) The existence of three different forms of certification would most likely create confusion for coffee purchasers. It would difficult to know what aspects of the coffee growing process each certification covered. Similarly, if there were multiple groups that certified financial statements, each with different criteria, it would be difficult for financial statement users to know what each certification promised.
- (b) The Starbucks certification appears to be the most common in that area. It has the advantage of having a direct link to the Starbucks coffee market. Although it does not guarantee that Starbucks will buy its coffee, it is a requirement that must be met before Starbucks will buy somebody's coffee. Note that the article states that the Starbucks certification "incorporates elements of social responsibility and environmental leadership, but quality of coffee is the first criteria." The Smithsonian Bird Friendly is considered to have the strictest requirements and, as a result, appears to be the least common.
- (c) The certifications have multiple objectives including organic farming as a means to protect bird species, biodiversity and wildlife habitat. Some included requirements are to improve workers' living conditions, such as providing running water in worker housing, child labor regulations and education requirements. As mentioned above, the Starbucks certification has the potential financial benefit of making Starbucks a potential customer, which can stabilize farmers' earnings. Certifications can also be financially beneficial because companies can benefit from the positive public relations effects of either producing or buying coffee produced using sustainable practices.

LO - BT: S Difficulty: Hard TOT: 30 min. AACSB: Technology and Reflective Thinking AICPA FC: Measurement and Reporting AICPA BB: Critical Thinking and Resource Management