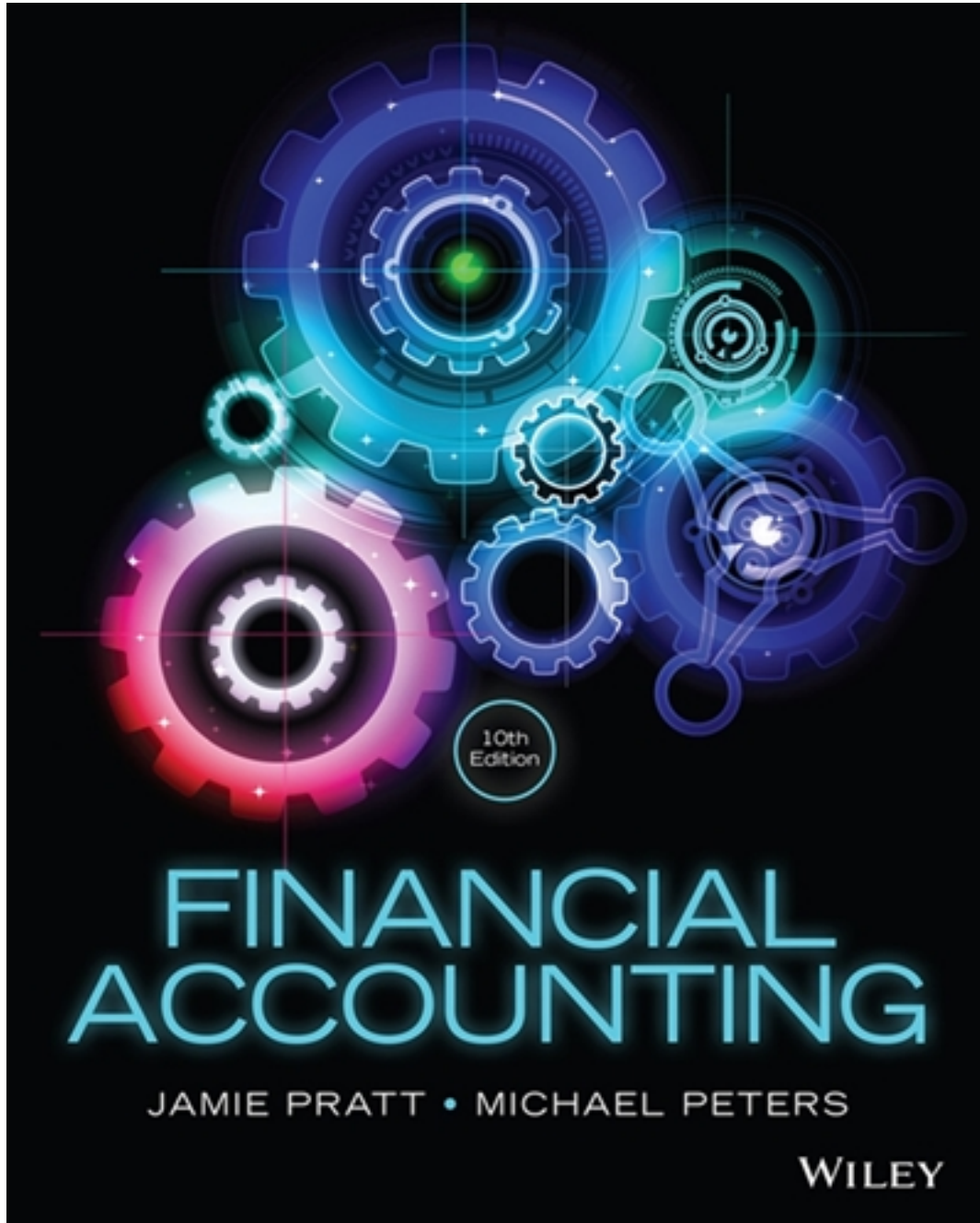


Solutions for Financial Accounting in an Economic Context 10th Edition by Pratt

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Solutions

CHAPTER 2

The Financial Statements

BRIEF EXERCISES

BE2-1

2012

2014 Beginning Retained Earnings	+	2014 Revenues	–	2014 Expenses	–	2014 Dividends	=	2014 Ending Retained Earnings
\$46.4	+	\$66.7	–	\$60.2	–	X	=	\$49.1
			X	=	\$3.8			

2014 Dividends as a percentage of 2014 net income:

$$\frac{\text{2014 Dividends}}{\text{2014 Net income } (\$66.7 - \$60.2)} = \frac{\$3.8}{\$6.5} = 58.5\%$$

LO: 2 **BT:** AN; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

BE2-2

- (1) Current Liabilities financed \$57 billion of the assets.
Current Liabilities divided by Total assets = $\$57/\$99 = 57.6\%$
- (2) Long-term debt financed \$33 billion of the assets.
Long-term debt divided by total assets = $\$33/\$99 = 33.3\%$
- (3) Shareholders' equity financed \$9 billion of the assets.
Shareholders' equity divided by total assets = $\$9/\$99 = 9.1\%$

LO: 1 **BT:** AP; **Difficulty:** Easy; **Total Time:** 10 minutes; **AACSB:** Analytic; **AICPA:** Measurement

BE2-3

- (a) Working capital = current assets – current liabilities. Boeing's current assets total \$68 billion, less \$57 billion of current liabilities, gives the company working capital of \$11 billion. Another measure of solvency would be the current ratio. The current ratio is current assets divided by current liabilities or \$68 billion divided by \$57 billion = 1.19. Both measures indicate that Boeing appears to have reasonable solvency. Current assets are sufficient to cover current liabilities.
- (b) No, Boeing has \$20.8 billion of liquid current assets (cash, short term investments, and accounts receivable) but it has \$57 billion of current liabilities.

- (c) Boeing would be more solvent if accounts receivable were \$46.8 billion and inventory was \$7.7 billion. Accounts receivable are closer to cash than inventory. When inventory is sold, it often becomes accounts receivable for a period of time prior to being converted to cash. So accounts receivable is one step closer to cash than inventory. Thus accounts receivables are expected to be converted to cash in a shorter time period than inventory.

LO: 4 **BT:** AP; **Difficulty:** Easy; **Total Time:** 10 minutes; **AACSB:** Analytic; **AICPA:** Measurement

BE2-4

	<u>2014</u>	<u>2013</u>	<u>2012</u>
Net cash flow from operating activities.....	\$ 31,338**	\$ 34,796	\$ 39,176
Net cash flow from investing activities.....	(18,337)	(23,124)	(19,680)
Net cash flow from financing activities.....	<u>(7,737)</u>	<u>(13,201)*</u>	<u>(17,673)</u>
Net change in cash	\$ 5,264*	\$ (1,529)**	\$ 1,823*
Cash at beginning of period	<u>3,339</u>	<u>4,868***</u>	<u>3,045**</u>
Cash at end of period.....	<u>\$ 8,603</u>	<u>\$ 3,339</u>	<u>\$ 4,868</u>

2014

$$* \$5,264 = \$8,603 - \$3,339$$

$$**x + (\$18,337) + (\$7,737) = \$5,264; x = \$31,338$$

2013

$$* \$34,796 + (\$23,124) + x = (\$1,529); x = \$13,201$$

$$**\$1,201 = \$3,339 + (\$1,529)$$

Cash at end of 2013 is same as cash at beginning of 2014.

$$*** (\$1,529) + x = \$3,339; x = \$4,868$$

2012

$$* \$x = \$39,176 + (\$19,680) + (\$17,673); x = \$1,823$$

$$** \$3,045 = \$4,868 - \$1,823$$

AT & T's cash management activities over the three-year period of 2012- 2014 appear to be extremely strong. The company is generating significant amounts of cash flow from operating activities, with all three years in excess of \$31 billion. AT & T is then able to reinvest substantial amounts in its asset base. At the same time, AT & T is also able to fund its financing activities from its operating cash flow. The large amount of funds being used in investing activities indicates that AT & T is growing its capital-intensive business.

LO: 3 **BT:** AN; **Difficulty:** Easy; **Total Time:** 10 minutes; **AACSB:** Analytic; **AICPA:** Measurement

BE2-5

IFRS Format

Noncurrent assets	253,338
Current assets	<u>99,778</u>
Total Assets	<u>353,116</u>

Noncurrent liabilities	94,118
Less: Current liabilities	<u>86,212</u>
Total Liabilities	<u>180,330</u>
Net Assets	<u>172,786</u>

Equity	<u>172,786</u>
--------	----------------

GAAP Format

Current assets	99,778
Noncurrent assets	<u>253,338</u>
Total	<u>353,116</u>

Current liabilities	86,212
Noncurrent liabilities	94,118
Shareholders' Equity	<u>172,786</u>
Total	<u>353,116</u>

Note: Another format used for IFRS begins with non-current assets, add current assets, and then subtract current liabilities to reflect the resources available to generate revenues and profits. The IFRS balance sheet then lists non-current liabilities and shareholders' equity, which represent the financing sources of company resources; this amount is often labeled "capital employed."

GAAP balance sheets, on the other hand, list all assets owned (current and long-term) and then categorizes the financing sources (current and long-term liabilities, as well as shareholder equity) for those assets.

LO: 4 **BT:** AP; **Difficulty:** Easy; **Total Time:** 12 minutes; **AACSB:** Diversity; **AICPA:** Measurement

EXERCISES

E2-1

	Operating, Investing, or Financing	Balance Sheet	Income Statement	Statement of Cash Flows	Statement of Shareholder's Equity
1	Financing	Yes	No	Yes	Yes
2	Operating	Yes	Yes	Cannot Tell	Yes
3	Operating	Yes	Cannot Tell*	Yes	Cannot Tell*
4	Investing	Yes	No	Yes	No
5	Financing	Yes	No	Yes	No
6	Financing	Yes	No	Yes	Yes
7	Investing	Yes	No	Yes	No
8	Operating	Yes	No	Yes	No

* It would impact these statements if the wages were paid in the same period as incurred.

LO: 3,4; **BT:** C; **Difficulty:** Moderate; **Total Time:** 12 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-2

	Operating, Investing, or Financing	Balance Sheet	Income Statement	Statement of Cash Flows	Statement of Shareholder's Equity
1	Financing	Yes	No	Yes	No
2	Operating	Yes	No	No	No
3	Operating	Yes	Yes	Yes	Yes
4	Operating	Yes	Yes	No	Yes
5	Investing	Yes	No	Yes	No
6	Investing	Yes	Cannot tell	Yes	Cannot tell
7	Financing	Yes	No	Yes	No
8	Operating	Yes	No	Yes	No

LO: 3,4; **BT:** C; **Difficulty:** Moderate; **Total Time:** 12 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-3

- | | | |
|---------------------|---------------------|---------------------|
| a. Balance sheet | g. Balance sheet | m. Balance sheet |
| b. Income statement | h. Balance sheet | n. Balance sheet |
| c. Balance sheet | i. Balance sheet | o. Balance sheet |
| d. Income statement | j. Balance sheet | p. Income statement |
| e. Balance sheet | k. Income statement | q. Balance sheet |
| f. Income statement | l. Income statement | r. Balance sheet |

LO: 4; **BT:** C; **Difficulty:** Easy; **Total Time:** 8 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-4

1. Statement of Shareholders' Equity (Retained Earnings), Statement of Cash Flows, Income Statement
2. Income Statement
3. Balance Sheet
4. Statement of Cash Flows, Balance Sheet
5. Statement of Shareholders' Equity; Statement of Cash Flows
6. Income Statement, Balance Sheet
7. Income Statement
8. Balance Sheet and Statement of Cash Flows

LO: 4; **BT:** C; **Difficulty:** Easy; **Total Time:** 10 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-5

2012

2012 Beginning Retained Earnings	+	2012 Revenues	–	2012 Expenses	–	2012 Dividends	=	2012 Ending Retained Earnings
\$1.9	+	\$17.9	–	\$16.1	–	X	=	\$1.9
			X	=	\$1.8			

2013*

2013 Beginning Retained Earnings	+	2013 Revenues	–	2013 Expenses	–	2013 Dividends	=	2013 Ending Retained Earnings
\$1.9	+	\$22.8	–	X	–	\$2.2	=	\$2.3
		X	=	\$20.2				

2014

2014 Beginning Retained Earnings	+	2014 Revenues	–	2014 Expenses	–	2014 Dividends	=	2014 Ending Retained Earnings
X	+	\$23.9	–	22.0	–	\$2.2	=	\$2.0
		X	=	\$2.3				

*The 2014 equation must be calculated before the 2013 equation.

	<u>2014</u>	<u>2013</u>	<u>2012</u>
Sales growth (\$)	\$1.1	\$4.9	N/A
Sales growth (%)	4.8%**	27.4%*	N/A
Profits (\$)	\$1.9	\$2.6	\$1.8
Profits / Sales	7.9%	11.4%	10.1%
Dividends / Net income	115.8%	84.6%	100.0%

* $27.4\% = (\$22.8 - \$17.9) / \$17.9$

** $4.8\% = (\$23.9 - \$22.8) / \$22.8$

The company saw strong sales growth, but profits were more volatile. Dividends are a consistently a high percentage of profits, which is common in the utility industry.

LO: 5; **BT:** AN; **Difficulty:** Medium; **Total Time:** 25 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-6

2015

Beginning Retained Earnings	+	2015 Revenues	–	2015 Expenses	–	2015 Dividends	=	Ending Retained Earnings
(\$499)	+	\$1,383	–	X	–	0	=	(\$523)
X	=	\$1,407						

Expenses for 2015 are \$1,407.

2016

Beginning Retained Earnings	+	2016 Revenues	–	2016 Expenses	–	2016 Dividends	=	Ending Retained Earnings
(\$523)	+	\$1,522	–	\$1,608	–	X	=	(\$758)
X	=	\$149						

Dividends declared for 2016 are \$149.

2017

Beginning Retained Earnings	+	2017 Revenues	–	2017 Expenses	–	2017 Dividends	=	Ending Retained Earnings
(\$758)	+	X	–	\$1,550	–	\$5	=	(\$596)
X	=	\$1,717						

Revenue for 2017 is \$1,717.

	<u>2017</u>	<u>2016</u>	<u>2015</u>
Sales growth (%)	12.8%**	10.1%*	N/A
Profits (Revenues – Expenses)	\$167	(\$86)	\$ (24)
Profits / Sales.....	9.7%	(5.7%)	(1.7%)
Dividends	\$ 5	\$ 149	\$ 0
Dividends / Profits.....	3.0%	N/A	N/A

* $10.1\% = (\$1,522 - \$1,383) / \$1,383$

** $12.8\% = (\$1,717 - \$1,522) / \$1,522$

The advertising agency had strong sales growth from 2015 to 2017. However, from 2016 to 2017, the Company was able to go from losses to a profit. Even though the Company had a loss in 2016 the

Company paid a healthy dividend. Then in 2017, when the Company showed a profit, it virtually eliminated the dividend. There is reason to be optimistic going forward. In 2017 the Company was able to show a nice growth in its sales while at the same time showing a reduction in its expenses.

LO: 5; **BT:** AN; **Difficulty:** Medium; **Total Time:** 25 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-7

Solvency primarily indicates a company's ability to meet its debt payments as they come due. Current liabilities are obligations that will be settled within one year or the company's operating cycle, whichever is longer, through the use of current assets or the creation of new current liabilities. Current assets are those assets that will be consumed or converted to cash within one year or the company's operating cycle, whichever is longer. Consequently, comparing current assets to current liabilities provides an indication of a company's ability to meet its short-term debts. In this case, current assets were 3.08 (\$477/\$155) and 3.13 (\$523/\$167) times greater than current liabilities as of December 31, 2014 and December 31, 2013, respectively.

Although comparing current assets to current liabilities provides a measure of a company's solvency, this measure is not perfect. A true test of a company's short-term solvency would be to compare the cash value of its current assets to the cash value of its current liabilities. For current liabilities, the book value is usually a good approximation of the cash value, since a company cannot, from a legal viewpoint, unilaterally change its debts. However, the situation is different for current assets. The book value may or may not bear any relation to the cash value. Consequently, comparing the book value of current assets to current liabilities may not give an accurate measure of a company's solvency.

LO: 5; **BT:** AN; **Difficulty:** Easy; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-8

	<u>Method 1</u>	<u>Method 2</u>
Working capital as of 12/31/2014.....	\$ 322*	\$ 322*
Impact of method on current assets.....	0	0
Impact of method on current liabilities	<u>200</u>	<u>0</u>
New working capital as of January 2015.....	<u>\$ 122</u>	<u>\$ 322</u>

* \$322 = \$477 current assets - \$155 current liabilities

It seems that only the second method would be acceptable to the company in terms of maintaining compliance with the minimum working capital covenant.

LO: 5; **BT:** AN; **Difficulty:** Easy; **Total Time:** 12 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-9

	<u>2015</u>	<u>2014</u>	<u>2013</u>
Beginning cash balance	\$ 6,726	\$ Y*	\$ 9,799
Net cash flow from operating activities.....	12,552	X	12,894
Net cash flow from investing activities.....	(10,088)	(6,643)	X
Net cash flow from financing activities.....	<u>X</u>	<u>(6,888)</u>	<u>(3,000)</u>
Ending cash balance.....	<u>\$ 6,877</u>	<u>\$ Z**</u>	<u>\$ 7,925</u>
X equals	\$ (2,313)	\$ 12,332	\$ (11,768)

*Beginning cash balance for 2014 = Ending cash balance for 2013; Thus Y = \$7,925.

** Ending cash balance for 2014 = Beginning cash balance for 2015; Thus Z = \$6,726

Cisco Systems' cash management activities over the three-year period of 2013, 2014, and 2015 appear to be strong. The Company is generating a significant amount of net cash flow from operations each year and then is investing in its business. Financing activities (including dividends and/or share repurchases) reduced cash in all three years.

LO: 3,4; **BT:** AN; **Difficulty:** Easy; **Total Time:** 12 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-10

	<u>2014</u>	<u>2013</u>	<u>2012</u>
Beginning cash balance	\$ Z**	\$ 1,113	\$ X
Net cash flow from operating activities.....	2,902	2,477	2,064
Net cash flow from investing activities.....	X	(1,384)	(833)
Net cash flow from financing activities.....	<u>(1,248)</u>	<u>X</u>	<u>(947)</u>
Ending cash balance.....	<u>\$ 1,282</u>	<u>\$ 1,355</u>	<u>\$ Y*</u>
X equals	\$ (1,727)	\$ (851)	\$ 829

*2013 Beginning balance = 2012 Ending balance; thus Y = \$1,113

**2014 Beginning balance = 2013 Ending balance; thus Z = \$1,355

Southwest Airlines' cash management activities appear to be very good and trending in the right direction for 2012, 2013, and 2014. The company generated a net cash inflow from its operating activities for the years shown. A look at its investing activities reveals that the company is expanding its asset base, as necessary in such a capital-intensive industry. During each year, the company increased its cash outflows due to financing activities. Overall, Southwest Airlines is a strong company that has done very well in this economy.

LO: 3,4; **BT:** AN; **Difficulty:** Easy; **Total Time:** 12 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-11

Lana & Sons
Statement of Cash Flows
For the Year Ended

Cash flows from operating activities:		
Cash collection from services provided	\$4,000	
Cash payment for expenses	<u>(3,000)</u>	
Net cash increase (decrease) from operating activities		\$1,000
Cash flows from investing activities:		
Purchase of property, plant, and equipment	<u>\$(3,000)</u>	
Net cash increase (decrease) from investing activities		(3,000)
Cash flows from financing activities:		
Proceeds from shareholders' contributions	\$7,000	
Payment of dividends	<u>(1,500)</u>	
Net cash increase (decrease) from financing activities		<u>5,500</u>
Increase (decrease) in cash balance		\$ 3,500
Beginning cash balance		<u>13,000</u>
Ending cash balance		<u>\$ 16,500</u>

Based on just one year's statement of cash flows it is difficult to comment adequately on Lana & Son's cash management activities. However, one can observe that most of the cash during the year was generated as a result of issuing equity. The company seems to be investing in its asset base. That will certainly help it grow in the future. Cash flows from operations is positive, which certainly is a good sign.

LO: 3,4; **BT:** AP; **Difficulty:** Medium; **Total Time:** 18 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-12

Emory Inc.
Statement of Cash Flows
For the Year Ended

Cash flows from operating activities:		
Cash collection from services provided	\$40,000	
Cash payment for expenses	<u>(23,000)</u>	
Net cash increase (decrease) from operating activities		\$17,000
Cash flows from investing activities:		
Purchase of equipment	<u>\$(23,000)</u>	
Net cash increase (decrease) from investing activities		(23,000)
Cash flows from financing activities:		
Proceeds from the bank loan	\$30,000	
Payment of dividends	<u>(24,000)*</u>	
Net cash increase (decrease) from financing activities		<u>6,000</u>
Increase (decrease) in cash balance		\$ 0
Beginning cash balance		<u>25,000</u>
Ending cash balance		<u>\$ 25,000</u>

Based on just one year's statement of cash flows, it is difficult to comment adequately on Emory's cash management activities. However, it seems that the company is generating a substantial portion of its cash flows from operating activities. The company is taking some loans to finance its asset base,

which would be helpful in the future. Return on total assets and return on equity would probably increase.

- * $\$17,000 \text{ (CFOA)} - \$23,000 \text{ (CFIA)} + 30,000 \text{ (Bank Loan Proceeds)} - X = 0 \text{ (Change in Cash Balance)}$
 $X = \text{Dividends Paid} = \$24,000$

LO: 3,4; **BT:** AP; **Difficulty:** Hard; **Total Time:** 18 minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-13

George's Business Income Statement For the Year Ended

Rent revenue	\$3,000
Operating Expenses	<u>2,500</u>
Net income.....	<u>\$ 500</u>

George's Business Statement of Shareholders' Equity For the Year Ended

	Common Stock	Retained Earnings
Beginning Balance	\$ 0	\$ 0
Stock Issue	6,000	
Net Income		500
Cash Dividends		<u>(800)</u>
Ending Balance	<u>\$6,000</u>	<u>\$ (300)</u>

George's Business Balance Sheet As of _____

<u>Assets</u>	
Cash	\$ 2,700*
Land	<u>8,000</u>
Total assets.....	<u>\$ 10,700</u>
<u>Liabilities & Shareholders' Equity</u>	
Note payable	\$ 5,000
Common Stock.....	6,000
Retained earnings.....	<u>(300)</u>
Total liabilities & shareholders' equity	<u>\$ 10,700</u>

* $\$2,700 = \$6,000 \text{ Equity} + \$5,000 \text{ Loan} - \$8,000 \text{ Land purchase} + \$3,000 \text{ rent} - \$2,500 \text{ expenses} - \800 dividends

George's Business
Statement of Cash Flows
For the Year Ended

Cash flows from operating activities:		
Cash collections from customers.....	\$ 3,000	
Cash payments for expenses	<u>(2,500)</u>	
Net cash flow from operating activities.....		\$ 500
Cash flows from investing activities:		
Purchase of land.....	\$ <u>(8,000)</u>	
Net cash flow from investing activities.....		(8,000)
Cash flows from financing activities:		
Proceeds from equity investor	\$ 6,000	
Proceeds from borrowing.....	5,000	
Cash payments for dividends	<u>(800)</u>	
Net cash flow from financing activities		<u>10,200</u>
Increase in cash		\$ 2,700
Beginning cash balance.....		<u>0</u>
Ending cash balance		<u>\$ 2,700</u>

Upon examining George's financial statements, the bank would certainly be concerned because George paid out more in dividends than the net income he realized during the year. George's statement of retained earnings shows a negative balance, which means that the payment to equity investors, which was disguised as return *on* capital was in fact a return *of* capital. Generally, dividend payments cannot exceed the Retained Earnings balance.

LO: 3,4; 5 **BT:** C, AP; **Difficulty:** Hard; **Total Time:** 35minutes; **AACSB:** Analytic; **AICPA:** Measurement

E2-14

Mary's Business
Income Statement
For the Year Ended _

Rent revenue	\$ 12,000
Operating Expenses.....	<u>14,000</u>
Net income.....	<u>\$ (2,000)</u>

Mary's Business
Statement of Shareholders' Equity
For the Year Ended _

	Common Stock	Retained Earnings
Beginning Balance	\$ 0	\$ 0
Stock Issue	30,000	
Net Income (Loss)		(2,000)
Cash Dividends		<u>(1,000)</u>
Ending Balance	<u>\$30,000</u>	<u>\$ (3,000)</u>

Mary's Business
Balance Sheet
As of _____

<u>Assets</u>	
Cash	\$ 2,000*
Land	<u>40,000</u>
Total assets.....	<u>\$ 42,000</u>
<u>Liabilities & Shareholders' Equity</u>	
Note payable.....	\$ 15,000
Common Stock.....	30,000
Retained earnings.....	<u>(3,000)</u>
Total liabilities & shareholders' equity.....	<u>\$ 42,000</u>

* \$2,000 = \$30,000 equity + \$15,000 loan - \$40,000 land purchase + \$12,000 rent - \$14,000 expenses - \$1,000 dividend.

Mary's Business
Statement of Cash Flows
For the Year Ended

Cash flows from operating activities:	
Cash collections from customers.....	\$ 12,000
Cash payments for expenses	<u>(14,000)</u>
Net cash flow from operating activities.....	\$ (2,000)
Cash flows from investing activities:	
Purchase of land.....	<u>\$ (40,000)</u>
Net cash flow from investing activities.....	(40,000)
Cash flows from financing activities:	
Proceeds from equity investor	\$ 30,000
Proceeds from borrowing.....	15,000
Cash payments for dividends.....	<u>(1,000)</u>
Net cash flow from financing activities	<u>44,000</u>
Increase in cash	\$ 2,000
Beginning cash balance.....	<u>0</u>
Ending cash balance	<u>\$ 2,000</u>

Mary should not have paid a cash dividend of \$1,000 because of her dwindling cash position and negative earnings during the year. The dividend was a return *of* capital rather than a return *on* capital.

PROBLEMS

P2-1

- | | | |
|------|-------|-------|
| 1. e | 9. a | 17. d |
| 2. e | 10. a | 18. a |
| 3. a | 11. c | 19. h |
| 4. a | 12. d | 20. e |
| 5. g | 13. c | 21. e |
| 6. c | 14. b | 22. e |
| 7. f | 15. e | |
| 8. c | 16. a | |

X Company Balance Sheet (Date)

Assets

Current assets:

Cash.....		\$XX	
Short-term investments		XX	
Accounts receivable	\$XX		
Less: Allowance for uncollectible accounts.....	<u>XX</u>	XX	
Inventory		XX	
Prepaid rent.....		<u>XX</u>	
Total current assets.....			\$XX

Long-term investments:

Long-term investments	<u>XX</u>		
Total long-term investments.....			XX

Property, plant, & equipment

Land.....		XX	
Buildings		XX	
Machine		XX	
Less: Accumulated depreciation.....	<u>XX</u>		
Net Property, plant, & equipment			<u>XX</u>

Intangible assets:

Patents		\$XX	
Less: Accumulated amortization	<u>XX</u>		
Total intangible assets			<u>XX</u>

Total assets.....			<u>\$XX</u>
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Liabilities and Shareholders' Equity

Current liabilities:

Accounts payable.....		\$XX	
Salaries and Wages payable.....		XX	
Dividends payable.....		XX	
Short-term notes payable		XX	
Current maturities of long-term debt		XX	
Unearned Revenue	<u>XX</u>		
Total current liabilities			\$XX

<u>Long-term liabilities:</u>		
Bonds payable.....	<u>\$XX</u>	
Total long-term liabilities.....		XX
<u>Shareholders' equity:</u>		
<u>Contributed Capital:</u>		
Common Stock.....	\$XX	
Retained earnings	<u>XX</u>	
Total shareholders' equity		<u>XX</u>
Total liabilities and shareholders' equity.....		<u>\$XX</u>

LO: 4; **BT:** C.; **Difficulty:** Easy; **Total Time:** 15minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-2

- | | | |
|------|-------|-------|
| 1. e | 6. e | 11. e |
| 2. b | 7. e | 12. c |
| 3. e | 8. f | 13. f |
| 4. a | 9. c | 14. d |
| 5. e | 10. c | 15. c |

X Company Income Statement For the Period Ended _____		
Revenues:		
Sales	\$XX	
Service Revenue.....	<u>XX</u>	
Total revenues.....		XX
Expenses:		
Cost of goods sold.....		XX
Operating expenses:		
Salaries and Wages expense.....	\$XX	
Selling and Administrative Expenses.....	XX	
Insurance expense.....	XX	
Depreciation expense.....	XX	
Supplies expense.....	XX	
Advertising expense.....	<u>XX</u>	
Total operating expenses		XX
Other income/expenses:		
Interest Revenue	XX	
Dividend Revenue.....	XX	
Gain on sale of investments	XX	
Interest expense	XX	
Gain on disposal of plant assets.....	XX	
Loss on disposal of plant assets	<u>XX</u>	
Total other		<u>XX</u>
Net income.....		<u>\$XX</u>

LO: 4; **BT:** C; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-3

Nimmo Brothers Corporation

Statement of Cash Flows

for the year ending 12/31/2017

Cash-Operating	275
Cash-Investing	(200)
Cash-Financing	<u>330</u>
Δ in Cash	405
Cash-12/31/16	<u>420</u>
Cash-12/31/17	<u>825</u>

Balance Sheet

as of 12/31/2017

Cash	825
Other Current Assets	1,550
Long-term Assets	<u>1,600</u>
Total Assets	<u>3,975</u>

Income Statement

for the year ending 12/31/2017

Revenue	4,200
Expenses	<u>4,050</u>
Net Income	<u>150</u>

Current Liabilities	995
Long-term Liabilities	1,200
Common Stock	1,200
Retained Earnings	<u>580</u>
Total	<u>3,975</u>

Statement of Shareholders' Equity

for the year ending 12/31/2017

	Common <u>Stock</u>	Retained <u>Earnings</u>
12/31/16	1,000	500
Net Income		150
Dividends		(70)
Stock Issuance	<u>200</u>	—
12/31/17	<u>1,200</u>	<u>580</u>

LO: 4; **BT:** AN; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-4

Johnson Company
Balance Sheet
December 31, 2017

Assets

Current assets:

Cash	\$ 8,000	
Short-term investments	40,000	
Accounts receivable	\$125,000	
Less: Allowance for doubtful accounts	<u>2,400</u>	
Net accounts receivable	122,600	
Inventory	<u>161,000^a</u>	
Total current assets		\$331,600

Property, plant, & equipment:

Buildings	\$ 35,000	
Less: Accumulated depreciation	<u>8,000</u>	
Total property, plant, & equipment		<u>27,000</u>

Total assets \$358,600

Liabilities & Shareholders' Equity

Current liabilities:

Accounts payable	\$110,000	
Income Taxes payable	<u>29,400</u>	
Total current liabilities		\$139,400
Notes payable		79,100

Shareholders' equity:

Common Stock	\$100,000 ^b	
Retained earnings	<u>40,100^c</u>	
Total shareholders' equity		<u>140,100</u>

Total liabilities & shareholders' equity \$358,600

^a Inventory is reported at the lower of its cost or its market value.

^b \$100,000 = \$12,500 shares × \$8 per share.

^c \$40,100 = \$65,000 cumulative earnings – \$24,900 cumulative declared dividends.

Based on only one year's balance sheet it is a very difficult question to answer. This fact proves the point that (1) all the financial statements must be interpreted as a whole, and (2) that the information should be analyzed over a number of years to draw any meaningful conclusions.

However, based on what we have, I would not invest in this company. The current ratio is 2.379 (\$331,600 / \$139,400) but debt/equity ratio is 1.560 ((\$139,400 + \$79,100) / \$140,100), which is a cause for concern in the long term. Further, the company seems to be paying approximately 38% of its net income in dividends (\$24,900 / \$65,000), which is good for the investors who are looking for short-term return on their capital.

P2-4 (cont'd)

Johnson Company
Balance Sheet
December 31, 2017

Property, plant, & equipment:		
Buildings.....	\$ 35,000	
Less: Accumulated depreciation	<u>8,000</u>	
Total property, plant, & equipment.....		\$ 27,000
Current assets:		
Cash	\$ 8,000	
Short-term investments	40,000	
Accounts receivable	\$125,000	
Less: Allowance for doubtful accounts	<u>2,400</u>	
Net accounts receivable	122,600	
Inventory.....	<u>161,000^a</u>	
Total current assets		<u>331,600</u>
Total Assets.....		<u>\$358,600</u>
Current liabilities:		
Accounts payable	\$110,000	
Income Taxes payable.....	<u>29,400</u>	
Total current liabilities		139,400
Notes payable.....		<u>79,100</u>
Total Liabilities.....		<u>218,500</u>
Net Assets		<u>\$140,100</u>
Equity:		
Common Stock	\$100,000	
Retained earnings.....	<u>40,100</u>	
Total shareholders' equity.....		<u>140,100</u>

Many non-US companies begin with non-current assets, add current assets, and then subtract current liabilities to reflect the resources available to generate revenues and profits. The IFRS balance sheet then lists non-current liabilities and shareholders' equity, which represent the financing sources of company resources; this amount is often labeled "capital employed."

Note that another approach to reporting under IFRS would show shareholders' equity prior to showing liabilities.

GAAP balance sheets, on the other hand, list all assets owned (current and long-term) and then categorizes the financing sources (current and long-term liabilities, as well as shareholder equity) for those assets.

LO: 4, 5; **BT:** AP; **Difficulty:** Medium; **Total Time:** 25 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-5

2014

Common Stock:

$$\begin{aligned}\text{Total assets} &= \text{Total liabilities} + \text{Total shareholders' equity} \\ (\$300 + \$200 + \$500 + \$100 + \$700) &= (\$200 + \$500) + (\text{Common Stock} + \$400) \\ \text{Common Stock} &= \$700\end{aligned}$$

Net Income:

$$\begin{aligned}\text{Net income} &= \text{Sales} - \text{Operating Expenses} \\ &= \$1,000 - \$400 \\ &= \$600\end{aligned}$$

Dividends:

$$\begin{aligned}\text{Ending retained earnings} &= \text{Beginning retained earnings} + \text{Net income} - \text{Dividends} \\ \$400 &= \$0 + \$600 - \text{Dividends} \\ \text{Dividends} &= \$200\end{aligned}$$

2015

Inventory:

$$\begin{aligned}\text{Total assets} &= \text{Total liabilities} + \text{Total shareholders' equity} \\ (\$300 + \$300 + \text{Inventory} + \$200 + \$600) &= (\$300 + \$600) + (\$400 + \$800) \\ \text{Inventory} &= \$700\end{aligned}$$

Expenses:

$$\begin{aligned}\text{Net income} &= \text{Sales} - \text{Operating Expenses} \\ \$400 &= \$1,100 - \text{Operating Expenses} \\ \text{Expenses} &= \$700\end{aligned}$$

Dividends:

$$\begin{aligned}\text{Ending retained earnings} &= \text{Beginning retained earnings} + \text{Net income} - \text{Dividends} \\ \$800 &= \$400 + \$400 - \text{Dividends} \\ \text{Dividends} &= \$0\end{aligned}$$

2016

Accounts Receivable:

$$\begin{aligned}\text{Total assets} &= \text{Total liab.} + \text{Total shareholders' equity} \\ (\$200 + \text{Accts. rec.} + \$400 + \$400 + \$700) &= (\$500 + \$800) + (\$600 + \$300) \\ \text{Accounts receivable} &= \$500\end{aligned}$$

Expenses:

$$\begin{aligned}\text{Net income} &= \text{Sales} - \text{Operating Expenses} \\ (\$100) &= \$700 - \text{Operating Expenses} \\ \text{Expenses} &= \$800\end{aligned}$$

Dividends:

$$\begin{aligned}\text{Ending retained earnings} &= \text{Beginning retained earnings} + \text{Net income} - \text{Dividends} \\ \$300 &= \$800 + (\$100) - \text{Dividends} \\ \text{Dividends} &= \$400\end{aligned}$$

2017

Accounts Payable:

$$\begin{aligned} \text{Total assets} &= \text{Total liabilities} + \text{Total shareholders' equity} \\ (\$500 + \$700 + \$400 + \$400 + \$800) &= (\text{Accts. pay.} + \$700) + (\$600 + \$600) \\ \text{Accounts payable} &= \$900 \end{aligned}$$

Net income:

$$\begin{aligned} \text{Ending retained earnings} &= \text{Beginning retained earnings} + \text{Net income} - \text{Dividends} \\ \$600 &= \$300 + \text{Net income} - \$200 \\ \text{Net income} &= \$500 \end{aligned}$$

Sales:

$$\begin{aligned} \text{Net income} &= \text{Sales} - \text{Operating Expenses} \\ \$500 &= \text{Sales} - \$600 \\ \text{Sales} &= \$1,100 \end{aligned}$$

In order to assess the financial performance of this company, we need to calculate the measures of solvency and earning power. Respective measures are computed as follows:

<u>Measures of Solvency</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Current Ratio:	5.00 ^a	4.33 ^b	2.20 ^c	1.78 ^d
Working Capital:	\$800 ^e	\$1,000 ^f	\$600 ^g	\$700 ^h
Debt/Equity Ratio:	.640 ⁱ	.700 ^j	1.44 ^k	1.30 ^l

^a $5.00 = [\$300 \text{ (Cash)} + \$200 \text{ (A/R)} + \$500 \text{ (Inventory)}] / \200 (A/P)

^b $4.33 = [\$300 \text{ (Cash)} + \$300 \text{ (A/R)} + \$700 \text{ (Inventory)}] / \300 (A/P)

^c $2.20 = [\$200 \text{ (Cash)} + \$500 \text{ (A/R)} + \$400 \text{ (Inventory)}] / \500 (A/P)

^d $1.78 = [\$500 \text{ (Cash)} + \$700 \text{ (A/R)} + \$400 \text{ (Inventory)}] / \900 (A/P)

^e $\$800 = \$1,000 \text{ Current Assets} - \$200 \text{ Current Liabilities}$

^f $\$1,000 = \$1,300 \text{ Current Assets} - \$300 \text{ Current Liabilities}$

^g $\$600 = \$1,100 \text{ Current Assets} - \$500 \text{ Current Liabilities}$

^h $\$700 = \$1,600 \text{ Current Assets} - \$900 \text{ Current Liabilities}$

ⁱ $.64 = \$700 \text{ TL} / \$1,100 \text{ TSE}$

^j $.75 = \$900 \text{ TL} / \$1,200 \text{ TSE}$

^k $1.44 = \$1,300 \text{ TL} / \900 TSE

^l $1.30 = \$1,600 \text{ TL} / \$1,200 \text{ TSE}$

The only measure of earning power that we can compute for this company is Return on Equity. The other measures, such as EPS and P/E Ratio, cannot be computed since the relevant information is not available. For this example, we will use the ending balances to calculate return on equity. This assumption will be the average balance after the discussion in Chapter 5.

<u>Measures of Earning Power</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Return on Equity:	.55 ^a	.33 ^b	— ^c	.42 ^d

^a $.55 = \$600 \text{ NI} / \$1,100 \text{ Total SE}$

^b $.33 = \$400 \text{ NI} / \$1,200 \text{ Total SE}$

^c No return on shareholder's equity during 2016 since the company suffered a loss of \$100.

^d $.42 = \$500 \text{ NI} / \$1,200 \text{ Total SE}$

Overall, looking at the measures of solvency and earning power, one can best conclude that the financial performance and position of the company has deteriorated since its inception in 2014.

The current ratio has continued to decline and working capital has also gone down. While the company has taken more debt, it has been unable to leverage against the interest of the shareholders, since the return on equity has declined considerably. In one year, 2016, the company even suffered a loss.

The company paid dividends even during the year of loss, indicating a poorly devised dividend policy.

LO: 4,5, **BT:** AN; **Difficulty:** Medium; **Total Time:** 25 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-6

Kroger
Balance Sheet
December 31, 2014, 2013

	<u>2014</u>	<u>2013</u>
<u>Assets</u>		
Cash	\$ 1,256	\$ 1,359
Accounts receivable	1,266	1,116
Inventory	<u>5,688</u>	<u>5,651</u>
Total Current Assets	<u>8,210</u>	<u>8,126</u>
Property, plant, and equipment (net).....	17,912	16,893
Other assets	<u>4,434</u>	<u>4,262</u>
Total assets	<u>\$ 30,556</u>	<u>\$ 29,281</u>
<u>Liabilities and Shareholders' Equity</u>		
Accounts payable.....	\$ 5,052	\$ 4,881
Other short-term debts.....	<u>6,351</u>	<u>5,824</u>
Total Current Liabilities.....	<u>11,403</u>	<u>10,705</u>
Long term debt.....	13,711	13,181
Shareholders' Equity.....	<u>5,442</u>	<u>5,395</u>
Total liabilities and shareholders' equity	<u>\$ 30,556</u>	<u>\$ 29,281</u>

Kroger
Income Statement
For the Years Ended December 31, 2014, 2013

	<u>2014</u>	<u>2013</u>
Sales	\$108,465	\$ 98,375
Expenses	<u>106,737</u>	<u>96,856</u>
Net income	<u>\$ 1,728</u>	<u>\$ 1,519</u>

Solvency refers to a company's ability to pay its obligations as they come due. The current ratio provides a measure of solvency by comparing those obligations that are coming due in the near future against those assets that the company expects to convert into cash or consume in the near future. Based on its current ratio, Kroger does not have sufficient current assets to cover its existing current liabilities in either year. In 2014, the current ratio was 0.72 (\$8,210/\$11,403), while it was 0.76 (\$8,126/\$10,705) in 2013. However, grocery companies, due to the perishable nature of their inventory, often have low current ratios.

Earning power refers to a company's ability to generate net assets through operations. Income has increased in dollars. Margins are thin in the company's industry, but Kroger has shown consistent earning capabilities in the time period.

LO: 4,5, **BT:** C, AN; **Difficulty:** Medium; **Total Time:** 20 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-7

- a. Assets are, for the most part, recorded at original cost. Over a period of time, the value of an item will change. For instance, the value of Eat and Run's property, plant, and equipment will most likely change as the items become older. Consequently, over time the cost of an item may have no relation to the item's market value. Since the cash received from selling an asset is based on the asset's market value, the asset's book value is not an accurate indicator of a company's value.
- b. The value of the firm would equal the sum of the fair market value of the assets less the sum of liabilities. The value of Eat and Run would, therefore, be as follows:

	<u>Market Value</u>
Cash	\$ 25,000
Short-term investments.....	19,000
Accounts receivable.....	25,000
Inventory.....	33,000 (\$30,000 + \$3,000)
Prepaid insurance	0
Property, plant, & equipment.....	100,000
Patents.....	<u>0</u>
Total market value of assets	\$ 202,000
Less: Total liabilities.....	<u>196,000*</u>
Value of Eat and Run	<u>\$ 6,000</u>

* \$196,000 = \$42,000 A/P + \$20,000 SWP + \$34,000 Accrued P + \$75,000 N/P + \$25,000 M/P

- c. If Eat and Run were to go bankrupt, the shareholders would receive anything left after all the assets were sold and the creditors were paid. In this case the fair market value of the assets exceeds the total liabilities, so the shareholders would receive the residual, which would be \$6,000. As a practical matter, Eat and Run might have to hire lawyers and accountants for the bankruptcy proceedings. If this were the case, the lawyers and accountants would have to be paid before the shareholders received anything. So in this particular case, there may be nothing left for the shareholders once the creditors, lawyers, and accountants are paid.

LO: 1, **BT:** AN; **Difficulty:** Medium; **Total Time:** 20 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-8

First, let us compute some relevant ratios that would help to evaluate the financial statements submitted by Romney Heights in support of its loan application to Acme Bank.

<u>Ratios</u>	<u>2017</u>	<u>2016</u>
Liquidity		
Current Ratio (Current Assets ÷ Current Liabilities)	2.00 ^a	2.00 ^b
Working Capital (Current Assets – Current Liabilities)	\$7,000 ^c	\$6,000 ^d

^a 2.00 = \$14,000 CA / \$7,000 CL

^b 2.00 = \$12,000 CA / \$6,000 CL

^c \$7,000 = \$14,000 Current Assets - \$7,000 Current Liabilities

^d \$1,000 = \$12,000 Current Assets - \$6,000 Current Liabilities

Long-Term Debt Paying Ability

Debt/Equity Ratio (Total Liabilities ÷ Shareholders' Equity)	1.06 ^e	0.96 ^f
Operating Cash Flow to Total Debt (Operating Cash Flow ÷ Total Debt)	0.45 ^g	0.33 ^h

^e 1.06 = \$33,000 TL / \$31,000 TSE

^f .96 = \$27,000 TL / \$28,000 TSE

^g .45 = \$15,000 OCF / \$33,000 TL

^h .33 = \$9,000 OCF / \$27,000 TL

<u>Ratios</u>	<u>2017</u>	<u>2016</u>
Profitability		
Net Profit Margin (Net Income ÷ Sales)	0.34 ⁱ	0.19 ^j
Total Asset Turnover (Sales ÷ Total Assets)	0.55 ^k	0.58 ^l
Return on Assets (Net Income ÷ Total Assets)	0.19 ^m	0.11 ⁿ
Return on Assets (Net Profit Margin × Total Asset Turnover)	0.19 ^o	0.11 ^p
Return on Equity (Net Income ÷ Shareholders' Equity)	0.39 ^q	0.21 ^r

ⁱ .34 = \$12,000 NI / \$35,000 Sales

^j .19 = \$6,000 NI / \$32,000 Sales

^k .55 = \$35,000 Sales / \$64,000 Total Assets

^l .58 = \$32,000 Sales / \$55,000 Total Assets

^m .19 = \$12,000 NI / \$64,000 Total Assets

- n $.11 = \$6,000 \text{ NI} / \$55,000 \text{ Total Assets}$
- o $.19 = .34 \text{ Net Profit Margin} \times .55 \text{ Asset Turnover}$
- p $.11 = .19 \text{ Net Profit Margin} \times .58 \text{ Asset Turnover}$
- q $.39 = \$12,000 \text{ NI} / \$31,000 \text{ Total SE}$
- r $.21 = \$6,000 \text{ NI} / \$28,000 \text{ Total SE}$

Note that ending balances are used to calculate Asset Turnover, Return on Assets, and Return on Equity. We change this assumption to average assets in Chapter 5. A thorough review of the various ratios reveals that Romney Heights is worth the risk. The bank should consider its loan application, at least for a short-term loan.

The short-term solvency position is reasonably good. Working capital is positive and the current assets are twice the current liabilities. Regarding long-term debt paying ability the company seems to be heavily leveraged. The debt to equity ratio is more than 1 and has increased from 2016 to 2017. However, the concern is somewhat mitigated by a substantial increase in the proportion of operating cash flows to the total debt held by the company.

The overall profitability of the company is on the rise, but the asset utilization is poor and flat. Since the return on equity has almost doubled, the company seems to be able to effectively leverage the increment in its debt to the advantage of its shareholders.

Regarding the statement of cash flows, the company seems to be doing fine. Net cash flow from operating activities is positive. The company is investing in its asset base, probably intending to expand in the future by supplementing its cash flow from operating activities with financing either from bank loans or from equity.

LO: 5, **BT:** AN; **Difficulty:** Medium; **Total Time:** 25 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2-9

First, let us compute some relevant ratios that would help us evaluate the financial statements of Ted Tooney.

<u>Ratios</u>	<u>2017</u>	<u>2016</u>
Liquidity		
Current Ratio (Current Assets ÷ Current Liabilities)	1.29 ^a	2.00 ^b
Working Capital (Current Assets – Current Liabilities)	\$2,000 ^c	\$4,000 ^d

- a $1.29 = \$9,000 \text{ CA} / \$7,000 \text{ CL}$
- b $2.00 = \$8,000 \text{ CA} / \$4,000 \text{ CL}$
- c $\$2,000 = \$9,000 \text{ Current Assets} - \$7,000 \text{ Current Liabilities}$
- d $\$4,000 = \$8,000 \text{ Current Assets} - \$4,000 \text{ Current Liabilities}$

Long-Term Debt Paying Ability

Debt/Equity Ratio (Total Liabilities ÷ Shareholders' Equity)	1.45 ^e	0.92 ^f
Operating Cash Flow to Total Debt (Operating Cash Flow ÷ Total Debt)	0.75 ^g	1.36 ^h

^e 1.45 = \$16,000 TL / \$11,000 TSE

^f .92 = \$11,000 TL / \$12,000 TSE

^g .75 = \$12,000 OCF / \$16,000 TL

^h 1.36 = \$15,000 OCF / \$11,000 TL

Profitability

Net Profit Margin (Net Income ÷ Sales)	0.15	0.19
Total Asset Turnover (Sales ÷ Total Assets)	3.41	3.87
Return on Assets (Net Income ÷ Total Assets)	0.52	0.74
Return on Assets (Net Profit Margin × Total Asset Turnover)	0.51	0.74
Return on Equity (Net Income ÷ Shareholders' Equity)	1.27	1.42

ⁱ .15 = \$14,000 NI / \$92,000 Sales

^j .19 = \$17,000 NI / \$89,000 Sales

^k 3.41 = \$92,000 Sales / \$27,000 Total Assets

^l 3.87 = \$89,000 Sales / \$23,000 Total Assets

^m .51 = \$14,000 NI / \$27,000 Total Assets

ⁿ .74 = \$17,000 NI / \$23,000 Total Assets

^o .51 = .15 Net Profit Margin x 3.41 Asset Turnover

^p .74 = .19 Net Profit Margin x 3.87 Asset Turnover

^q 1.27 = \$14,000 NI / \$11,000 Total SE

^r 1.42 = \$17,000 NI / \$12,000 Total SE

Looking at the declining trends of all financial indicators, it would be best to decline Ted's request for an equity investment in his company.

The short-term liquidity of the company is going down. The working capital as well as the current ratio has declined. The company is becoming highly leveraged and the amount of operating cash flow as a percentage of total debt has considerably declined. This all indicates a worsening position.

The profitability and return on assets are declining. The return on equity has also declined as the company is not able to leverage its debt to the advantage of its shareholders.

Even though the overall liquidity position is not that serious, the trend is towards the decline. In summary, a loan position may be taken with the company, but certainly not an equity position.

LO: 5, **BT:** AN; **Difficulty:** Medium; **Total Time:** 25 minutes; **AACSB:** Analytic; **AICPA:** Measurement

P2–10

- a. As of 12/31/17 the current asset balance of Ellington Industries is 1.33 times the current liability balance ($1.33 = \$12,000 \text{ current asset} / \$9,000 \text{ current liability}$)

Since the debt covenant requires this balance to be 2 times the current liability balance, Ellington Industries must have current assets of at least \$18,000. It already has \$12,000 invested in current assets, it will need to invest an additional \$6,000 out of the long-term borrowing of \$40,000 to comply with the debt covenant. That would leave \$34,000 ($\$40,000 - \$6,000$) for additional investment in the land. The land investment will then become \$89,000 ($\$55,000 + \$34,000$)

b.

Ellington Industries
Balance Sheet
January 1, 2018

<u>Assets</u>	
Current assets	\$ 18,000
Land	<u>89,000</u>
Total assets.....	<u>\$ 107,000</u>
<u>Liabilities & Shareholders' Equity</u>	
Accounts payable.....	\$ 9,000
Long-term liabilities.....	70,000
Shareholders' equity	<u>28,000</u>
Total liabilities and shareholders' equity.....	<u>\$ 107,000</u>

Ratios

Current assets/Current liabilities = $\$18,000 / \$9,000 = 2$

Total liabilities/Total assets = $\$79,000^* / \$107,000 = .74$

* $\$79,000 = \$9,000 + \$70,000$

c.

Ellington Industries
Balance Sheet
December 31, 2018

<u>Assets</u>	
Current assets	\$ 36,000
Land	<u>89,000</u>
Total assets.....	<u>\$ 125,000</u>
<u>Liabilities & Shareholders' Equity</u>	
Accounts payable.....	\$ 7,000
Long-term liabilities.....	70,000
Shareholders' equity	<u>48,000</u>
Total liabilities and shareholders' equity.....	<u>\$ 125,000</u>

Since the dividend has to be paid in cash, it will come out of the current assets. According to the restrictions imposed by the debt covenant, the current assets must be twice the current liabilities, i.e., at least \$14,000. This would result in an excess of \$22,000 ($\$36,000 - \$14,000$) in the current assets. Therefore, the company can pay a maximum of \$22,000 in dividends without violating the debt covenant.

If the company declares and pays \$22,000 in dividends, then total liabilities/total assets would be equal to .75 (\$77,000/\$103,000*).

* $\$103,000 = \$125,000 \text{ Total Assets} - \$22,000 \text{ cash paid dividends}$

LO: 5, **BT:** AN; **Difficulty:** Hard; **Total Time:** 30minutes; **AACSB:** Analytic; **AICPA:** Measurement

ISSUES FOR DISCUSSION

ID2-1

- a. Net income represents the change in net assets (i.e., assets less liabilities) generated during the year from operating activities. Alternatively, cash flows from operating activities are the amount of cash the company generated during the year from operating activities. Since cash is simply one of many assets a company has, it is obvious that net income and cash flows from operating activities are not the same. Thus, it is quite possible for a company to have an increase in net assets from operating activities (i.e., net income) and at the same time, have negative cash flows from operating activities.

The ability of a company to pay dividends is a function of how much cash the company has available. A company could generate negative cash flows from operating activities but have large cash reserves from generating cash from operating activities in prior years. Alternatively, a company may have obtained enough cash to pay a dividend by borrowing the money or by selling assets. Remember, companies can generate cash from investing activities and financing activities in addition to cash from operating activities.

- b. A company could not continue generating negative cash flows from operating activities and expect to continue in business. A company cannot borrow money or issue stock indefinitely. At some point, the creditors will demand to be repaid and the owners will demand some return on their investment. Sooner or later the company will have to generate cash from its operations to repay the creditors. Paying out dividends while generating negative cash flows from operating activities will only increase the company's cash problems.

LO: 2, **BT:** C, AP; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-2

Analysts and investors following Netflix would react positively to new subscribers, as well as leading market share of subscribers in general. A critically acclaimed show, similarly, would have a positive effect on interested subscribers and would therefore be welcome news to investors. Subscribers, of course, are the source of cash flow for the company, so additional subscribers will mean additional cash flow for the company. Now whether that incoming cash results in profitable operations depends on the associated expenses of gaining and serving those subscribers. But, as shown on the quarterly financial statements, for the first quarter, at least, the growth of subscribers resulted in revenues exceeding expenses (and well ahead of the previous year's performance). Analysts and investors would look to the income statement and the statement of cash flows for the resulting effects of the subscriber growth.

LO: 2,3, **BT:** AN; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-3

- a. The excerpt indicates that the Cummins Engine Company's creditors have imposed restrictions on Cummins as part of the borrowing agreement. The covenants restrict Cummins' abilities to pay dividends and borrow money and the relative amount of its current assets and current liabilities. If Cummins fails to comply with the covenants, its creditors could require Cummins to repay the loans immediately.
- b. A bank or other creditor would impose such restrictions to protect itself from a loan default. That is, creditors impose restrictions on borrowers, such as the amount of cash that can be paid out for dividends, that increase the probability that the borrower will have sufficient resources to be able to make the interest and principal payments required under the borrowing agreement.
- c. Debt covenants are often explicitly based on financial accounting numbers. For example, the current ratio is based on the amount of current assets and current liabilities reported on Cummins' balance sheet. Similarly, compliance with the dividend restriction can be assessed by examining the amount of dividends declared reported in the statement of retained earnings.

LO: 1, **BT:** AN; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-4

Sears Holdings – Sears is a company struggling to survive in the competitive marketplace of retail sales. The company lost cash in the basic operation of its stores, as well as in its needs to repay financing resources. A primary source of cash, and this is a troubling one for a company, has been its sale of long-term assets. Sears has positive cash from financing (not in the problem – this positive cash flow may have been when it was able to borrow money on its healthy Lands Ends' unit prior to its spin-off. Most healthy companies (like the other two shown in this problem) invest cash in their long-term assets in order to be viable companies in the future. Sears has had to sell off assets in order to keep its cash balances from getting too meager.

Amazon.com – Amazon appears to be a classic growth company. Operations generate a significant amount of cash, yet the company's thirst for growth causes a great outflow of cash for investments in long-term assets (such as distribution warehouses in strategically located places). The cash generated from operations is not sufficient to fund the growth, so the company turns to the financing function (debt and/or equity issuances) to generate additional cash for its expanding business.

Boeing – Boeing is further along the growth curve than Amazon, as shown by its cash flow pattern. Strong operating cash flow is used to return cash to shareholders and debt providers. Whereas Amazon was raising capital from financing activities, Boeing is in a position to return cash to those who provided financing.

LO: 3, **BT:** C; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-5

From the data given about the United Technologies Corporation, it can be surmised that United Technologies has done a good job of generating positive operating cash flow, although it dipped somewhat in the most recent year shown. Interestingly, there has been a significant decrease in investment in long-term assets in 2013 and 2014 relative to 2012. It may be that they invested significantly in other businesses in 2012 and such was not the case in 2013 and 2014. In addition, United Technologies raised a significant amount of money from financing activities in 2012 relative to 2013 and 2014. The large investment in long-term assets shown by the company's cash from investing activities implies that the company is purchasing other businesses largely for strategic reasons. Overall, in 2013 and 2014, cash balances have remained relatively constant, as the strong cash inflows from operations have been used primarily for the outflows of investing and financing activities.

LO: 3, **BT:** C; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-6

A U.S. GAAP balance sheet shows the most liquid accounts first and then lists accounts in the order that they are convertible to cash. Those accounts being closest to cash are listed first. Secondly, liabilities are not shown in parentheses. Finally, some of the equity accounts carry slightly different titles.

GlaxoSmithKline
Consolidated Balance Sheet
As of 12/31/2014

	<u>2014</u>	<u>2013</u>
ASSETS:		
Cash	4,338	5,534
Short term investments	69	66
Accounts receivable	4,600	5,442
Inventory	4,231	3,900
Other assets	<u>1,440</u>	<u>285</u>
Current assets	<u>14,678</u>	<u>15,227</u>
 Non-Current Assets		
Investments:		
Investment in Affiliates	340	323
Other Investments	1,114	1,202
Property, Plant & Equipment	<u>9,052</u>	<u>8,872</u>
Total	<u>10,506</u>	<u>10,397</u>
 Goodwill & Other	<u>15,467</u>	<u>16,462</u>
Total Assets	<u>40,651</u>	<u>42,086</u>
 LIABILITIES		
Loans	2,943	2,789
Accounts payable	7,958	8,317
Other current liabilities	<u>2,394</u>	<u>2,571</u>
Current liabilities	13,295	13,677
 Long-term liabilities		
Loans	15,841	15,456
Long term payables	<u>6,579</u>	<u>5,141</u>

Long term liabilities	<u>22,420</u>	<u>20,597</u>
Shareholders' Equity		
Common stock	1,339	1,336
Additional paid in capital	2,759	2,595
Retained Earnings	(2,074)	913
Other	<u>2,912</u>	<u>2,968</u>
Total shareholders' equity	<u>4,936</u>	<u>7,812</u>
Total Liabilities and Shareholders' Equity	<u>40,651</u>	<u>42,086</u>

LO: 4, **BT:** C, AP; **Difficulty:** Medium; **Total Time:** 20 minutes; **AACSB:** Diversity; **AICPA:** Research

ID2-7

Earnings according to GAAP are accrual numbers, meaning that they don't represent cash. For some income statement numbers, there is a timing difference between the accrual and cash effect. For example, net income represents revenues minus expenses, but revenue can be recognized even if the company has yet to receive the cash (accounts receivable are booked with the expectation that cash will be received at a later date). However, if the accounts receivable, which represents a promise from a customer to pay cash, never converts into cash, the accrual net income figure is an overstatement of the company's earnings power. Investors, therefore, look at net income in conjunction with operating cash flow to determine if the various components of accrual net income are supported by cash flows.

LO: 5; **BT:** AP; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-8

Both General Electric (GE) and Comcast are interested in focusing efforts on core business activities: for GE, running a television network did not fit in with its manufacturing and financial businesses, while Comcast saw a television network as a logical vertical extension of its core business of providing cable television services to consumers.

The NBC transaction was completed simultaneously, with NBC's ownership switching from GE/Vivendi to Comcast/GE. From GE's perspective, it saw a net cash inflow (cash from investing activities decreased to purchase Vivendi's 20% share and then increased when the 51% stake was sold to Comcast), while its balance sheet ultimately showed a decrease in NBC-related assets (from a consolidation of all NBC assets to a line item investment in NBC).

LO: 4; **BT:** AP; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Analytic; **AICPA:** Measurement

ID2-9

An analyst following both Nike (GAAP) and Adidas (IFRS) would not be pleased with the SEC decision. An analyst would like to review the financial results of the companies in a side-by-side, "apples-to-apples" comparison. With the previous requirement, the analyst could take the reconciliation prepared by Adidas and compare its net income and shareholders' equity to those of Nike. Once the requirement was dropped, the analyst (with the same need for industry peer comparison) would effectively have to do the reconciliation by him/herself. The analyst would

therefore need to be an expert in both GAAP and IFRS in order to compare the results of the two footwear and athletic apparel firms.

LO: 2,4; **BT:** AP; **Difficulty:** Medium; **Total Time:** 15 minutes; **AACSB:** Diversity; **AICPA:** Measurement
ID2-10

a.		<u>2015</u>		<u>2014</u>		<u>2013</u>	
	Sales*	\$ 52,465	100%	\$ 48,813	100%	\$ 45,051	100%
	Cost of sales**	(28,364)	54.1%	(26,420)	54.1%	(25,034)	55.6%
	S G & A expenses***	(10,877)	20.7%	(10,853)	22.2%	(10,557)	23.4%
	Other	174	00.0%	203	00.4%	(337)	1.0%
	Taxes	(5,016)	9.6%	(4,242)	8.7%	(2,987)	6.6%
	Net income	\$ 8,382	15.6%	\$ 7,501	15.4%	\$ 6,136	13.6%

*Sales = Sales Revenues + Product Revenues

**Cost of Sales = Cost of Services + Cost of Products

*** SG&A expenses = SG&A expenses plus depreciation and amortization for this problem.

Disney's net income has increased in raw dollars and also as a percentage of sales. Other than taxes, other expenses (cost of sales and S G & A) have decreased as a percent of sales from 2013 to 2015. One explanation is that the improving economy over this period has increased the demand for entertainment services, which may be a result of more people have disposable income.

b.		<u>2015</u>		<u>2014</u>	
	Current assets	\$ 16,758	19.0%	\$ 15,176	18.0%
	Noncurrent assets	<u>71,424</u>	81.0%	<u>69,010</u>	82.0%
	Total assets	\$ 88,182		\$84,141	

From 2014 to 2015 there has been a slight change in the allocation between current and non-current assets. The company has increased its share of current assets.

c.		<u>2014</u>		<u>2014</u>	
	Current liabilities	\$16,334	18.5%	\$13,292	15.8%
	Long-term liabilities	23,298	26.4%	22,716	27.0%
	Total assets	\$88,182		\$84,181	

From 2013 to 2014 Disney increased the percentage of assets financed with current and long-term liabilities, meaning it decreased the percentage of assets financed with equity.

d. Disney is generating much cash flow from operating activities (\$10,909 cash generated in 2015) and investing this cash in new parks and resorts (\$4,245 cash outflow total investing in 2015; \$4,265 is invested in new parks and resorts). They also return some of this cash to the owners in the form of dividends and stock repurchases (\$3,063 in dividends and \$6,095 in stock repurchases in 2015). Disney is opening a new theme park in China and possibly much of the investments went to this new venture. The generation and use of cash in 2013 and 2014 is comparable to that of 2015.

e. Yes, Disney does pay dividends. As noted in (d), Disney returns cash to shareholders in two ways: dividends (\$3,063 in 2015) and share repurchases (\$6,095 in 2015). Disney is growing

but would not be considered a high-growth company so it makes sense that some of the cash generated from operations is returned to owners as there are not as many high-growth projects to invest in when compared to younger, higher-growth company.

LO: 5, **BT:** AN; **Difficulty:** Hard; **Total Time:** 40 minutes; **AACSB:** Analytic; **AICPA:** Research

Chapter 2: Solutions to Real-World Review Box Questions

Pratt & Peters 10e

Section [page number]

A Story That Builds a Set of Financial Statements [pg. 33]

A company's success in a particular period cannot solely be determined by whether the company reported a profit. The profit must be large enough to provide an acceptable return on the shareholders' investment, given the risk the shareholder is incurring by investing in the company. Keep in mind that shareholders have other investment options. For example, assume that an investor has \$1,000 and can invest it in a U.S. Treasury Note and receive a guaranteed return of 5%, or \$50 per year. Would that investor be satisfied if the \$1,000 was invested instead in a risky company that made a profit of \$10 per year? The answer is "no." The company did make a profit, but the company only provided a return to the shareholder of 1%, which is way below the riskless U.S. Treasury Note rate. Thus, a company's performance depends not only on its profits, but also on the size of the investment required to make that profit.

Financial Statements As a Package and Five Fundamental Performance Metrics [pg. 52] – Box 1

The transactions leading to the \$1.0B cash-provided-by-operating-activities number directly involved the manufacture and sale of Zimmer's inventory of medical parts. Cash receipts from the sale of the medical parts would be included, and netted against these cash receipts would be cash payments for the purchase of raw materials, wages and salaries, utilities, insurance, rent, advertising and other operating items. The \$469.4M cash-used-in-investing-activities number involved cash payments for the investments made by the company, most of which are intended to benefit the company over more than a single reporting period. Investments in other companies, machinery, equipment, and real estate would be include, and netted against these cash payments would be cash receipts from the sales of these items. The \$562.4M cash-used-for-financing-activities number involved cash exchanges with the capital providers (debt and equity holders) of the company. Included here would be cash proceeds from long-term borrowings and stock issuances, and netted against these amounts would be cash payments to reduce the principal of the borrowings as well as cash payments for dividends and stock repurchases.

Financial Statements As a Package and Five Fundamental Performance Metrics [pg. 52] – Box 2

The dividend payments made by Johnson & Johnson would be reported as a negative number in the financing section of the statement of cash flows. If the company pays dividends of approximately 30 – 40 percent of net income, that means that 60 – 70 percent of the net income is left in the business (reinvested) and not withdrawn by the shareholders.

Financial Statements As a Package and Five Fundamental Performance Metrics [pg. 54]

Amazon reported a deficit in its retained earnings account because it reported net losses that accumulated to over \$800M since its inception.