Financial Reporting and Analysis (7th Ed.) Chapter **2** Solutions Accrual Accounting and Income Determination Exercises

Exercises

E2-1. Distinguishing accrual-basis revenue from cash receipts (AICPA adapted)

Because the subscription begins with the first issue of 2018, no revenue is recognized in 2017. No product or service has yet been provided by Gee Company to its customers.

Gee received in cash the full amount of \$36,000 in 2017.

E2-2. Converting from cash receipts to accrual-basis revenue (AICPA adapted)

We first analyze the activity in the Deferred fee revenue account, which is shown below. This account represents the liability to provide goods or services in exchange for consideration that has already been received. Once the goods or services are provided, the liability is relieved and the revenue is recognized in the income statement.

Deferred Fee Revenue				
	\$0	Beginning balance		
	X	Payments received in advance		
	of revenue recognition			
	\$8,000	Ending balance		

The account increased by \$8,000, which is explained by \$8,000 of payments received in advance of revenue being recognized. In total, Dr. Hamilton received \$200,000 from patients, so 200,000 - 88,000 = 192,000 of the receipts were to pay off accounts receivable. Using that information and the amounts that are given for beginning and ending accounts receivable, we now analyze Accounts receivable and show that Sales revenues are \$199,000.

Accounts Receivable

Beginning			
balance	\$18,000		
Patient fee		\$192,000	Collections on account
revenues	Y		
Ending balance	\$25,000		

\$18,000 + Y - \$192,000 = \$25,000 Y = **\$199,000**

E2-3. Distinguishing between accrual basis expense and cash disbursement

(AICPA adapted)

The amount of premiums paid can be determined from a T-account analysis of prepaid insurance.

Prepaid InsuranceBeginning
balance\$210,000Premiums paidXX\$875,000Amounts charged to insurance
expenseEnding balance\$245,000

\$210,000 + X - \$875,000 = \$245,000 **X = <u>\$910,000</u>**

E2-4. Converting from cash to accrual basis

We first determine sales revenue by analyzing Accounts receivable.

Accounts Receivable Beginning						
balance	\$139,000					
Sales revenue	Х	\$387,000	Collections on account			
Ending balance	\$141,000					

$X = \frac{$389,000}{$389,000}$

In order to determine cost of goods sold, we must analyze two accounts – Inventory and Accounts payable. Each of these accounts explains a portion of the difference between cash payments and cost of goods sold because Inventory changes by the difference between cost of goods sold and purchases, and Accounts payable change by the difference between purchases and payments to suppliers.

Accounts Payable						
BAP Beginning balance						
Payments on account	\$131,000	X	Inventory purchases			
		BAP-19,000	Ending balance			

We do not know the amount of Accounts payable at either the beginning or the end of the year, but we do know Accounts payable declined by \$19,000, which we represent above with the amounts BAP and BAP-19,000 for the beginning and ending balances, respectively.

\$BAP + X - \$131,000 = \$BAP-19,000 **X = <u>\$112,000</u>**

The analysis indicates that knowing the *change* in Accounts payable is sufficient to determine the difference between purchases and payments.

Now that we have determined the amount of inventory purchases, we can analyze the Inventory account.

Inventory				
Beginning				
balance	BI			
Inventory	112,000	Y Cost of goods sold		
purchases				
Ending balance	BI-39,000			

\$BI + \$112,000 - Y = \$BI - \$39,000 Y = <u>\$151,000</u>

As was the case for Accounts payable, we do not know the beginning and ending Inventory balances, but the change is sufficient for our analysis. Cost of goods sold is \$151,000.

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Therefore, gross profit is 389,000 - 151,000 = 238,000.

E2-5. Preparing a multiple-step income statement

Hardrock Mining Co. Income Statement Year Ended December 31, 2017 (\$ in 000)	
Net sales	\$5,281,954
Cost of products sold	<u>(4,765,505</u>)
Gross Profit	516,449
Marketing, administrative and other expenses	(193,147)
Interest expense	(17,143)
Investment losses*	(57,752)
Restructuring charges	<u>(8,777</u>)
Earnings before income taxes	239,630
Provision for income taxes	<u>(71,889</u>)
Income from continuing operations	167,741
Profit on discontinued operations, net of income tax	
effect of \$3,600**	8,400
Net income	<u>\$176,141</u>
Earnings per common share:	
Income from continuing operations	\$16.77
Discontinued operations	0.84
Net income	\$ <u>17.61</u>

The "Other, net" caption as originally reported is broken down as follows:

* "Other, net" as originally reported (\$ in 000)	\$54,529
Less: Restructuring charge	(8,777)
Plus: Discontinued operations	<u>12,000</u>
Investment losses	<u>\$57,752</u>

Discontinued operations are presented "net of tax" as calculated below. The "restructuring loss" is infrequent, thus it is a separately disclosed component of operating income. Removing these two items from "Other, net" leaves only the investment losses in the original caption, which should be relabeled "investment losses."

** Pretax profit from discontinued operations	\$12,000
Income taxes on discontinued operations (30% tax	
rate)	3,600
Discontinued operations, net of taxes	\$ <u>8,400</u>

The foreign currency loss (\$55,000) does not surpass any reasonable materiality threshold (e.g., greater than 1% of net income) so it may remain in "marketing, administrative and other expenses." Had this loss been material, separate disclosure as a component of operating income would have been warranted.

Per share disclosures are required on the face of the income statement for income from operations and items that follow on the income statement.

E2-6. Income statement presentation

Event 1 is a discontinued operation and would appear on the income statement below income from continuing operations. To qualify for discontinued operation treatment, the sold component must represent a strategic shift having a major effect on the operations or results. As the transactions are assumed to be material, this condition for discontinued operations treatment appears to be met.

Event 2 would be reported as an unusual or infrequently occurring item and thus would be included in income from continuing operations.

Event 3 is also an unusual or infrequently occurring item, included in income from continuing operations.

Event 4 is a change in accounting principle and would require retrospective application (i.e., prior year income statement numbers presented for comparative purposes would be restated to reflect the average cost method of inventory costing). The current year income statement numbers would be based on the average cost method. The effect of the accounting principle change on the current period income numbers would be disclosed in a note to the financial statements explaining the accounting change.

Event 5 is a change in accounting estimate and thus would be included in income from continuing operations. No special income statement disclosure of this event is required. Depreciation expense in 2017 (and beyond) will be calculated using the (new) shorter lives. That is, the remaining book values will be depreciated over the remaining lives. The range of equipment lives used for depreciation purposes may need to be adjusted in the notes to Krewatch's financial statements.

Event 6 is an unusual on infrequently occurring item and thus would be included in income from continuing operations.

Event 7 is an unusual or infrequently occurring item and thus would be included in income from continuing operations.

E2-7. Determining gain (loss) from discontinued operations

Munnster Corporation Partial Income Statement For the Years Ended December 31					
		<u>2017</u>	<u>2016</u>		
Operating income Provision for income taxes Income from continuing operations	\$	1,405,000 <u>421,500</u> 983,500	\$ 920,000 276,000 644,000		
Discontinued operations: Loss from discontinued division, net of tax benefits of \$151,500 in 2017 and					
\$51,000 in 2016		(353,500)	(119,000)		
Gain from sale of discontinued division, net of taxes of \$105,000 Net income	\$	245,000 875,000	<u>- 0 -</u> \$ 525,000		

The following analysis shows how the revised income statements are derived through reclassification of the amounts related to discontinued operations:

		2017				2017		
	As originally				As originally			
	reported	<u>Adjust.</u>		GAAP	reported	Adjust.		GAAP
Operating income	\$900,000	\$505 <i>,</i> 000	(1)	\$1,405,000	\$750,000	\$170,000	(1)	\$920,000
Gain on sale of division	350,000	(350,000)	(3)	0				0
		(151,500)	(2)					
Provision forincome taxes	(375,000)	105,000	(4)	(421,500)	(225,000)	(51,000)	(2)	(276,000)
Income from continuing operations	875,000	,	. ,	983,500	525,000	(- ,,	• •	644,000
		(505,000)	(1)			(170,000)	(1)	
Loss from discontinued operations		151,500	(2)	(353,500)		51,000	(2)	(119,000)
Loss from discontinued operations		131,500	(2)	(333,300)		51,000	(2)	(115,000)
		350,000	(3)					
Gain on sale of discontinued operations		(105,000)	(4)	245,000			-	0
Net income	\$875,000	\$0	-	\$875,000	\$525,000	\$0	=	\$525,000

(1) Reclassify pretax loss on discontinued operations to discontinued operations section.

(2) Reclassify tax effect of (1) to discontinued operations section. (\$505,000 x 30% = \$151,500. \$170,000 x 30% = \$51,000.)

(3) Reclassify gain on sale of discontinued operations to discontinued operations section.

(4) Reclassify tax effect of (3) to discontinued operations section. (\$350,000 x 30% = \$105,000).

E2-8. Determining loss on discontinued operations

The results of operations of an entity classified as held for sale are to be reported in discontinued operations in the periods in which they occur (net of tax effects). For Revsine, the loss from operations for the discontinued segment would be \$350,000 determined as follows:

Loss from 1/1/17 to 8/31/17	(\$300,000)
Loss from 9/1/17 to 12/31/17	(200,000)
Total pre-tax loss	(500,000)
Tax benefit at 30%	150,000
Operating loss, net of tax effects	<u>(\$350,000)</u>

None of the expected profit from operating the discontinued operation in 2018 or the estimated gain on sale is recognized in 2017. These amounts will be recognized in 2018 as they occur.

E2-9. Determining period vs. product costs

	Period Cost	Traceable Cost
Depreciation on office building	Х	
Insurance expense for factory building ¹		х
Product liability insurance premium	Х	
Transportation charges for raw materials ²		Х
Factory repairs and maintenance ¹		Х
Rent for inventory warehouse ³	Х	
Cost of raw materials		Х
Factory wages		Х
Salary to chief executive officer	Х	
Depreciation on factory		Х
Bonus to factory workers		х
Salary to marketing staff	Х	
Administrative expenses	Х	
Bad debt expense ³		Х
Advertising expense ⁴	Х	
Research and development	Х	
Warranty expense ⁵		Х
Electricity for plant ¹		Х

¹These are product costs; i.e. costs incurred in the manufacturing process. They are traceable in that they can be assigned to units produced in the current period, even if that is done by some allocation method.

²Rent for inventory warehousing could be argued to be a product cost. However, generally costs incurred after the production process is complete are treated as period costs.

³Bad debt expense is typically deducted from sales to arrive at Net Sales. It is not an inventory cost that is part of Cost of goods sold, but it is still matched to the period of the related revenue.

⁴Advertising is not part of the manufacturing process and typically cannot be associated with specific units of production. Therefore, it is generally treated as a period cost.

⁵Warranty expense is matched against sales in the period in which the products subject to warranties are sold, not when the warranty costs are incurred. It is not an inventory cost that becomes part of cost of goods sold, but it is matched to the period of the related sale.

E2-10. Change in inventory methods

Requirement 1:

Retained earnings balance at January 1, 2017, using LIFO		\$1,750,000
Increased cumulative pretax income through December 31, 2016 using FIFO	\$80,000	
Less: income tax at 30%	<u>(24,000)</u>	
Increased cumulative net income through December 31, 2016		<u>56,000</u>
Retained earnings balance at January 1, 2017, using FIFO		<u>\$1,806,000</u>
Requirement 2: 1/1/2017 To record a change in inventory method DR Inventory CR Retained earnings	l \$80,000	56,000
CR Accrued tax liability		24,000

E2-11. Determining effect of omitting year-end adjusting entries

OS =	overstated
US =	understated
	no offect

NE = no effect

			Net
<u>Item</u>	<u>Assets</u>	Liabilities	Income
1. Supplies Inventory Direction of effect	OS	NE	OS
Dollar amount of effect	\$9,000		\$9,000
Expense not recorded = \$12,000	- \$3,000 = \$9,0	000	
2. Deferred landscaping re			
Direction of effect	NE	OS	US
Dollar amount of effect		\$6,000	\$6,000
Revenue not recorded = \$6,000 f	rom July 1, 201	7 to December 31, 2017	
3. Gasoline Expense			
Direction of effect	NE	US	OS
Dollar amount of effect		\$2,500	\$2,500
Gasoline expense not recorded =	= \$2,500		
4. Interest Expense			
Direction of effect	NE	US	OS
Dollar amount of effect		\$4,500	\$4,500
Interest expense for 9 months no	t accrued = \$50	0,000 x 0.12 x 9/12 = \$4,5	00
5. Depreciation Expense			
Direction of effect	OS	NE	OS
Dollar amount of effect	\$10,000		\$10,000
Depreciation expense not recorde	ed = \$30,000/3	= \$10,000	

E2-12. Error Correction

Requirement 1:

At the end of 2016, inventory is understated by 8,000 and must be corrected. Accumulated depreciation is overstated by 22,300 - 6,000 =

\$16,300 and must also be corrected. Note that we determined these amounts differently. Inventory is a balance sheet account and we are given the amount by which it is misstated at December 31, 2016. In the case of accumulated depreciation – also a balance sheet account – we are not given the amount by which the account is misstated. Instead, we are given the amount by which depreciation expense was misstated, and it is the cumulative misstatement in depreciation expense that will be the amount by which accumulated depreciation is misstated. Hence, we summed the depreciation expense misstatements to derive the accumulated depreciation misstatement.

The correcting journal entry is as follows:

DR Inventory	\$8,000	
DR Accumulated depreciation	16,300	
CR Retained earnings		\$24,300

To understand why the balancing line of the entry is in Retained earnings, consider how the Inventory and Accumulated depreciation accounts became misstated. Amounts in the Inventory account at the beginning of a period or added to Inventory during the year are in one of two places at the end of the year. They have either been expensed through cost of goods sold or are in the ending Inventory account balance. Therefore, for every dollar by which Inventory is too low, cost of goods sold, cumulatively over the life of the firm, has been too high. As a result, cumulative net income and therefore Retained earnings is also too low. Similarly for depreciation, for every dollar by which accumulated depreciation is too high, cumulative depreciation expense has been too high and therefore cumulative net income has been too low. As a result, Retained earnings is understated and must be increased.

Requirement 2:

Assuming it is material, the error is corrected by restating all misstated periods retroactively. The 2017 financial statements will present prior periods as corrected. In addition, disclosures will show the financial statement effects of the error correction on each of the restated periods.

Requirement 1:

At the end of 2016, Inventory is understated by \$40,000. In addition, Equipment is understated by \$70,000 and Accumulated depreciation is understated by $3,000 [($70,000 - $10,000) \div 10 \times .5 = $3,000]$. The adjusting entry is:

DR	Inventory	\$40,000	
DR	Equipment	70,000	
	CR Accumulated depreciation		\$3,000
	CR Retained earnings		107,000

To understand why the balancing line of the entry is in Retained earnings, consider how the Inventory, Equipment, and Accumulated depreciation accounts became misstated. Amounts in the Inventory account at the beginning of a period or added to Inventory during the year are in one of two places at the end of the year. They have either been expensed through cost of goods sold or are in the ending Inventory account balance. Therefore, for every dollar by which Inventory is too low, cost of goods sold, cumulatively over the life of the firm, has been too high. As a result, cumulative net income and therefore Retained earnings is also too low. When an equipment purchase is expensed rather than capitalized, net income is understated, causing Retained earnings to be understated. And, for every dollar of depreciation that is not taken but should have been, cumulative depreciation expense has been too low and therefore cumulative net income has been too high. As a result, Retained earnings is overstated and must be increased. So, Retained earnings is increased by \$40,000 and \$70,000, and decreased by \$3,000, for a net increase of \$107,000.

Requirement 2:

Assuming it is material, the error is corrected by restating all misstated periods retroactively. The 2017 financial statements will present prior periods as corrected. In addition, disclosures will show the financial statement effects of the error correction on each of the restated periods.

Requirement 1:

a) This error affected ending inventory in 2016 and beginning inventory in 2017. Because inventory errors "self-correct" over a two-year period, and the 2017 financial statements have been issued, no entry is required. However, if comparative financial statements are issued in 2018, income as presented for 2016 and 2017 must be restated to correct the error, making appropriate note disclosure of the correction. The corrected financial statements would include a revision to Cost of goods sold for both 2016 and 2017. Cost of goods sold as originally reported was understated by \$8,550 in 2016 (because ending inventory was overstated and COGS = BI + P - EI). In 2017, Cost of goods sold was overstated by \$8,550 (because beginning inventory was overstated).

b) To correct error and reflect remaining insurance at January 1, 2018: \$21,000

DR Prepaid insurance

CR Retained earnings

\$21,000

36-month policy -15 months elapsed since inception = 21 months remaining at beginning of 2018.

\$36,000 policy cost ÷ 36-month policy period = \$1,000 per month expiration rate for the insurance coverage.

c) To correct error and reflect equipment and accumulated depreciation: **DR** Equipment \$100.000

CR Retained earnings	\$80,000
CR Accumulated depreciation	20,000

Cost of equipment \div life = annual depreciation expense = $$100,000 \div 5 =$ \$20,000 per year. At the beginning of 2018, accumulated depreciation should reflect depreciation for one year (2017).

Requirement 2:

a) This error does not affect the 2018 financial statements.

b) Insurance expense should be recorded at the rate of \$12,000 per year as the policy expires. If the error were not corrected, income in 2018 would be overstated by \$12,000. At the end of 2018, \$9,000 of the policy has yet to expire. This amount should be shown as "prepaid insurance" on the

balance sheet, so assets would be understated by \$9,000, as would retained earnings.

 c) Failure to correct this error would leave total assets understated by \$60,000 at the end of 2018. (\$100,000 equipment cost – \$40,000 accumulated depreciation for 2017 and 2018). Retained earnings would also be understated by \$60,000. Income in 2018 would be overstated by \$20,000 because of the failure to record depreciation expense each year.

E2-15. Preparing comprehensive income statement

JDW Corporation Income Statement and Statement of Comprehensive Income For the Year Ended December 31, 2017

Sales	\$ 2	2,929,500
Cost of goods sold	('	1,786,995)
Gross profit		1,142,505
Selling and administrative expenses		(585,900)
Income from operations, before income taxes		556,605
Income taxes*		(166,982)
Net income	\$	389,623
	•	
Net income	\$	389,623
Unrealized holding loss, net of tax of \$6,600**		(15,400)
Foreign currency translation adjustment		26,250
Unrealized loss from pension adjustment, net		
of tax of \$2,100***		(4,900)
Comprehensive income	\$	395,573
*\$556,605 x 30% = \$166,982		
**\$22,000 x 30% = \$6,600		
***\$7,000 x 30% = \$2,100		

E2-16. Wellington International Airport Limited – Reporting asset revaluations in OCI.

Requirement 1:

Revaluations occur when the company hires and then receives a valuation report from a professional appraiser. The company has no current interest in selling the land or property, plant, and equipment, so any changes in value are *unrealized*. Because these changes in value are unrealized and the company has no current interest in realizing them through a sales transaction, the changes in value are reported in Other Comprehensive Income. If the company actually sold the property to realize the changes in value, then the changes would appear in Net Income.

Requirement 2:

The values of land and property, plant, and equipment went up because the company reports the Revaluation changes as increases in Other Comprehensive Income.

Requirement 3:

U.S. GAAP does not allow for upward Revaluation of land or property, plant, and equipment. Therefore there would be no entry observed for Revaluation in Other Comprehensive Income.

Financial Reporting and Analysis (7th Ed.) Chapter **2** Solutions Accrual Accounting and Income Determination Problems

Problems

P2-1. Preparing journal entries and statement

Requirement 1:

1/1/17: To record cash contributed by ov DR Cash CR Capital stock	\$200,000	\$200,000
1/1/17: To record rent paid in advance DR Prepaid rent CR Cash	\$24,000	\$24,000
3/1/17: No entry upon signing of contra	ct	
7/1/17: To record purchase of office equ DR Equipment CR Cash	\$100,000	\$100,000
11/30/17: To record salary paid to emplo DR Salaries expense CR Cash	oyees \$66,000	\$66,000
12/31/17: To record advance-consulting fees received from Norbert Corp. DR Cash \$20,000		
CR Advances from customer		\$20,000
Requirement 2:		
DR Rent expense CR Prepaid rent	\$12,000	\$12,000
Only one year's rent is expensed in the income statement for 2017. The balance will be expensed in next year's income statement.		
DR Accounts receivable CR Revenue from services rend	\$150,000 dered	\$150,000

Revenue is recognized in 2017 because Frances Corp. has fulfilled its obligation to provide services.

DR Depreciation expense	\$10,000	
CR Accumulated depreciation		\$10,000

Annual depreciation is 100,000/5 = 20,000. Because the equipment was used for only 6 months, the depreciation charge for the year is only 20,000/2 = 10,000.

DR	Salaries expense	\$6,000	
	CR Salaries payable		\$6,000

To accrue salaries expense for December 2017.

Requirement 3:

Frances Corpor Income Statem For Year Ended Decem	nent	
Revenue from services rendered		\$150,000
Less: Expenses Salaries	\$72,000	
Rent	12,000	
Depreciation	<u>10,000</u>	94,000
Net income		<u>\$56,000</u>

Requirement 4:

Frances Corporation Balance Sheet December 31, 2017			
	\$30,000 150,000 12,000		
Less: Accumulated depr. Net equipment Total assets	<u>90,000</u> <u>90,000</u> <u>\$282,000</u>		
Liabilities Salaries payable Advances from customer	\$6,000 20,000		
Stockholders' Equity Capital stock Retained earnings Total liabilities and stockholders' equ	200,000 <u>56,000</u> \$282,000		

P2-2. Making adjusting entries and statement preparation

Requirement 1: DR Advance to employee CR Salaries expense	\$5,000	\$5,000
DR Prepaid insurance CR Insurance expense	\$5,000	\$5,000
DR Bad debt expense CR Allowance for doubtful accounts	\$2,950	\$2,950
$($425,000 \times 5\% = $21,250. $21,250 - $18,300)$	= \$2,950)	
DR Dividends CR Dividends payable	\$20,000	\$20,000

Before preparing the financial statements, let us re-construct the trial balance after incorporating all the adjusting entries:

Ralph Retailers, Inc. Adjusted Preclosing Trial Balance As of December 31, 2017						
Cash Accounts receivable Prepaid rent Inventory Equipment Building Allowance for doubtful accounts Accumulated depreciation—equipment Accumulated depreciation—building Advance from customers Accounts payable Salaries payable Salaries payable Capital stock Retained earnings 1/1/17 Sales revenue Cost of goods sold Salaries expense Bad debt expense Bad debt expense Rent expense Insurance expense Depreciation expense—building Depreciation expense—equipment Dividends Advance to employee Prepaid insurance Dividends payable	Debit \$38,700 71,600 12,000 125,000 125,000 125,000 21,250 40,000 10,000 6,000 3,000 43,500 5,000	Credit \$5,950 40,000 12,000 18,000 26,000 5,500 70,000 264,850 425,000				
	<u>\$887,300</u>	<u>\$887,300</u>				

Ralph Retailers, Inc. Income Statement For Year Ended December 31, 2017						
Sales revenue		\$425,000				
Less: Cost of goods sold		276,250				
Gross profit		148,750				
Less: Operating expenses Salaries expense Bad debt expense Rent expense Insurance expense Depreciation expense—building Depreciation expense—equipment Net income	\$55,000 21,250 40,000 10,000 6,000 <u>3,000</u>	<u>135,250</u> <u>\$13,500</u>				

Ralph Retailers, Inc. Balance Sheet						
December 31, 2017 Assets Cash Accounts receivable Less: Allowance for doubtful accounts Net accounts receivable Prepaid rent Prepaid insurance Advance to employee Inventory	\$71,600 <u>(5,950</u>)	\$38,700 65,650 12,000 5,000 5,000 125,000				
Equipment Less: Accumulated depreciation Net equipment	50,000 <u>(40,000</u>)	10,000				
Building Less: Accumulated depreciation Net building Total assets	125,000 <u>(12,000</u>)	<u>113,000</u> <u>\$374,350</u>				
Liabilities Advance from customers Accounts payable Salaries payable Dividends payable Total liabilities Shareholders' equity Capital stock Retained earnings Total liabilities and stockholders' equity		\$18,000 26,000 5,500 20,000 69,500 70,000 234,850 \$374,350				

P2-3. Understanding the accounting equation

Flaps Inc. Balance Sheet									
						Year			
	2016	6		2017		2018		2019	2020
Assets									
Current assets	\$ 5,0)98	\$	5,130	\$	5,200	\$	5,275	\$ 5,315
Non-current assets	8,6	667		8,721		8,840		8,968	9,036
Total assets	13,	765		13,851		14,040		14,243	 14,351
Liabilities									
Current liabilities	3,	399		3,420		3,467		3,517	3,543
Non-current liabilities	5,2	231		5,263		5,335		5,412	5,454
Total liabilities	8,0	630		8,683		8,802		8,929	 8,997
Stockholders' Equity									
Common stock		138		139		140		142	144
Additional paid-in capital	2,2	202		2,216		2,247		2,280	2,296
Contributed capital	2,3	340		2,355		2,387		2,422	 2,440
Retained earnings	2,	795		2,813		2,851		2,892	2,914
Total stockholders' equity	5,	135		5,168		5,238		5,314	 5,354
Total liabilities and equity	\$ 13,	765	\$	13,851	\$	14,040	\$	14,243	\$ 14,351

Items in bold are unknowns solved below.

- **Item A:** 2016 Current liabilities: Current liabilities plus noncurrent liabilities equals total liabilities. Therefore, total liabilities (\$8,630) less noncurrent liabilities (\$5,231) equals current liabilities (\$3,399).
- **Item B:** 2016 Total assets: Total assets are equal to total liabilities and stockholders' equity (\$13,765).
- **Item C:** 2016 Additional paid-in capital: Common stock plus additional paid-in capital is equal to contributed capital. Therefore, contributed capital (\$2,340) less common stock (\$138) equals additional paid-in capital (\$2,202).
- **Item D:** 2016 Current assets: Current assets plus noncurrent assets equals total assets. So total assets (\$13,765) less noncurrent assets (\$8,667) equals current assets (\$5,098).
- **Item E:** 2016 Total stockholders' equity: Contributed capital (\$2,340) plus retained earnings (\$2,795) equals total stockholders' equity (\$5,135).

- **Item F:** 2017 Total liabilities and stockholders' equity: Total liabilities (\$8,683) plus total stockholders' equity (\$5,168) equals total liabilities and stockholders' equity (\$13,851).
- **Item G:** 2017 Contributed capital: Common stock (\$139) plus additional paidin capital (\$2,216) equals contributed capital (\$2,355).
- **Item H:** 2017 Total assets: Total assets are equal to total liabilities and stockholders' equity (\$13,851) which was solved in (F).
- **Item I:** 2017 Noncurrent liabilities: Current liabilities plus noncurrent liabilities is equal to total liabilities. Therefore, total liabilities (\$8,683) less current liabilities (\$3,420) is equal to non-current liabilities (\$5,263).
- **Item J:** 2017 Current assets: Current assets plus noncurrent assets equals total assets. Accordingly, total assets (\$13,851) less noncurrent assets (\$8,721) equals current assets (\$5,130).
- **Item K:** 2018 Total liabilities and stockholders' equity: Total liabilities and stockholders' equity is equal to total assets (\$14,040).
- **Item L:** 2018 Common stock: Common stock plus additional paid-in capital equals contributed capital. So contributed capital (\$2,387) less additional paid-in capital (\$2,247) equals common stock (\$140).
- Item M: 2018 Noncurrent assets: Current assets plus noncurrent assets equals total assets. Therefore, total assets (\$14,040) less current assets (\$5,200) equals non-current assets (\$8,840).
- **Item N:** 2018 Total liabilities: Current liabilities (\$3,467) plus noncurrent liabilities (\$5,335) equals total liabilities (\$8,802).
- **Item O:** 2018 Total stockholders' equity: Contributed capital (\$2,387) plus retained earnings (\$2,851) equals total stockholders' equity (\$5,238).
- **Item P:** 2019 Total liabilities and stockholders' equity: Total liabilities (\$8,929) plus total stockholders' equity (\$5,314) equals total liabilities and stockholders' equity (\$14,243).
- **Item Q:** 2019 Retained earnings: Contributed capital plus retained earnings equals total stockholders' equity. Accordingly, total stockholders' equity (\$5,314) less contributed capital (\$2,422) equals retained earnings (\$2,892).
- **Item R:** 2019 Total assets: Total assets are equal to total liabilities and stockholders' equity (\$14,243) which was solved in (P).

- **Item S:** 2019 Noncurrent liabilities: Current liabilities plus noncurrent liabilities is equal to total liabilities. Therefore, total liabilities (\$8,929) less current liabilities (\$3,517) is equal to non-current liabilities (\$5,412).
- **Item T:** 2019 Additional paid-in capital: Common stock plus additional paid-in capital is equal to contributed capital. Therefore, contributed capital (\$2,422) less common stock (\$142) equals additional paid-in capital (\$2,280).
- **Item U:** 2020 Total liabilities and stockholders' equity: Total liabilities and stockholders' equity is equal to total assets (\$14,351).
- **Item V:** 2020 Current liabilities: Take total liabilities and stockholders' equity (\$14,351) which was calculated in (U), less total stockholders' equity (\$5,354). This equals total liabilities (\$8,997). Total liabilities (\$8,997) less noncurrent liabilities (\$5,454) equals current liabilities (\$3,543).
- **Item W:** 2020 Contributed Capital: Common stock (\$144) plus additional paid-in capital (\$2,296) equals contributed capital (\$2,440).
- **Item X:** 2020 Noncurrent assets: Current assets plus noncurrent assets equals total assets. Then total assets (\$14,351) less current assets (\$5,315) equals noncurrent assets (\$9,036).
- **Item Y:** 2020 Retained earnings: Contributed capital plus retained earnings equals total stockholders' equity. Accordingly, total stockholders' equity (\$5,354) less contributed capital (\$2,440, from (W)) equals retained earnings (\$2,914).
- **Item Z:** 2020 Total liabilities: Total liabilities and stockholders' equity (\$14,351), which was calculated in (U), less total stockholders' equity (\$5,354) equals total liabilities (\$8,997).

Select In		Touret, Inc. from Financ	ial Stateme	nts	
			Year		
	2016	2017	2018	2019	2020
Assets					
Current assets	\$ 2,746	\$ 2,736	\$ 3,016	\$ 2,778	\$ 2,234
Non-current assets	4,002	4,501	3,900	4,230	4,805
Total assets	\$ 6,748	\$ 7,237	\$ 6,916	\$ 7,008	\$ 7,039
Liabilities					
Current liabilities	1,536	1,801	1,685	1,701	1,463
Non-current liabilities	2,212	2,345	2,175	2,206	2,252
Total liabilities	3,748	4,146	3,860	3,907	3,715
Stockholders' Equity					
Contributed capital	1,250	1,250	1,300	1,300	1,400
Retained earnings	1,750	1,841	1,756	1,801	1,924
Total stockholders' equity	3,000	3,091	3,056	3,101	3,324
Total liabilities and equity	\$ 6,748	\$ 7,237	\$ 6,916	\$ 7,008	\$ 7,039
Other Information					
Beginning retained earnings	\$NA	\$ 1,750	\$ 1,841	\$ 1,756	\$ 1,801
Net income (loss)	NA	105	(76)	55	135
Dividends	NA	(14)	(9)	(10)	(12
Ending retained earnings	\$ 1,750	\$ 1,841	\$ 1,756	\$ 1,801	\$ 1,924
Working capital	\$ 1,210	\$ 935	\$ 1,331	\$ 1,077	\$ 771

P2-4. Understanding the accounting equation

Items in **bold** are unknowns solved below. Items are not necessarily solved in alphabetical order.

- **Item A:** 2016 Current assets: Current assets plus noncurrent assets equals total assets. Therefore, total assets (\$6,748) less non-current assets (\$4,002) equals current assets (\$2,746).
- **Item C:** 2016 Total stockholders' equity: Contributed capital (\$1,250) plus retained earnings (\$1,750) equals total stockholders' equity (\$3,000).
- **Item D:** 2016 Total liabilities and stockholders' equity: Total liabilities and stockholders' equity is equal to total assets (\$6,748).

- **Item B:** 2016 Noncurrent liabilities: Total liabilities and stockholders' equity (\$6,748) less total stockholders' equity (\$3,000) is equal to total liabilities (\$3,748). Current liabilities plus noncurrent liabilities is equal to total liabilities. Therefore, total liabilities (\$3,748) less current liabilities (\$1,536) is equal to noncurrent liabilities (\$2,212).
- **Item E:** 2016 Working capital: Current assets (\$2,746) less current liabilities (\$1,536) equals working capital (\$1,210).
- **Item H:** 2017 Current liabilities: Current assets less current liabilities equals working capital. Hence, current assets (\$2,736) less working capital (\$935) equals current liabilities (\$1,801).
- **Item K:** 2017 Total liabilities and stockholders' equity: Current liabilities (\$1,801) plus noncurrent liabilities (\$2,345) is equal to total liabilities (\$4,146). Total liabilities (\$4,146) plus total stockholders' equity (\$3,091) is equal to total liabilities and stockholders' equity (\$7,237).
- **Item G:** 2017 Total assets: Total assets are equal to total liabilities and stockholders' equity (\$7,237).
- **Item F:** 2017 Noncurrent assets: Current assets plus noncurrent assets equals total assets. Then total assets (\$7,237) less current assets (\$2,736) equals noncurrent assets (\$4,501).
- **Item J:** 2017 Retained earnings: Beginning of the year retained earnings (\$1,750) plus net income (\$105) less dividends (\$14) equals end of the year retained earnings (\$1,841).
- **Item I:** 2017 Contributed capital: Contributed capital plus retained earnings equals total stockholders' equity. Accordingly, total stockholders' equity (\$3,091) less retained earnings (\$1,841) equals contributed capital (\$1,250).
- **Item M:** 2018 Total assets: Total assets are equal to total liabilities and stockholders' equity (\$6,916).
- Item L: 2018 Current assets: Current assets plus noncurrent assets equals total assets. Therefore, total assets (\$6,916) less noncurrent assets (\$3,900) equals current assets (\$3,016).
- **Item N:** 2018 Current liabilities: Current assets less current liabilities equals working capital. Hence, current assets (\$3,016) less working capital (\$1,331) equals current liabilities (\$1,685).
- Item O: 2018 Noncurrent liabilities: Total liabilities and stockholders' equity (\$6,916) less total stockholders' equity (\$3,056) equals total liabilities

(\$3,860). Current liabilities plus noncurrent liabilities equals total liabilities. So total liabilities (\$3,860) less current liabilities (\$1,685) equals noncurrent liabilities (\$2,175).

- **Item P:** 2018 Contributed capital: Contributed capital plus retained earnings equals total stockholders' equity. Therefore, total stockholders' equity (\$3,056) less retained earnings (\$1,756) equals contributed capital (\$1,300).
- **Item Q:** 2018 Net income (loss): Beginning of the year retained earnings plus net income less dividends equals end of the year retained earnings. Therefore, end of the year retained earnings (\$1,756) plus dividends (\$9) less beginning of the year retained earnings (\$1,841) equals net loss (\$76).
- Item R: 2019 Noncurrent assets: Current assets plus noncurrent assets equals total assets. Therefore, total assets (\$7,008) less current assets (\$2,778) equals noncurrent assets (\$4,230).
- **Item T:** 2019 Retained earnings: Beginning of the year retained earnings plus net income less dividends equals end of the year retained earnings. Therefore, end of the year retained earnings from 2020 (\$1,924) plus dividends from 2020 (\$12) less net income from 2020 (\$135) equals beginning of the year retained earnings (\$1,801) which is also the end of the year retained earnings for 2019.
- **Item U:** 2019 Total stockholders' equity: Contributed capital (\$1,300) plus retained earnings (\$1,801) equals total stockholders' equity (\$3,101).
- **Item S:** 2019 Current liabilities: Total liabilities and stockholders' equity (\$7,008) less total stockholders' equity (\$3,101) equals total liabilities (\$3,907). Current liabilities plus noncurrent liabilities equals total liabilities. Therefore, total liabilities (\$3,907) less noncurrent liabilities (\$2,206) equals current liabilities (\$1,701).
- **Item V:** 2019 Working capital: Current assets (\$2,778) less current liabilities (\$1,701) equals working capital (\$1,077).
- **Item W:** 2019 Dividends: Beginning of the year retained earnings plus net income, less dividends, equals end of the year retained earnings. Accordingly, end of the year retained earnings (\$1,801) less net income (\$55) and beginning of the year retained earnings (\$1,756) equals dividends (\$10).
- **Item X:** 2020 Current assets: Current assets less current liabilities equals working capital. So working capital (\$771) plus current liabilities (\$1,463) equals current assets (\$2,234).

- **Item Y:** 2020 Total assets: Current assets (\$2,234) plus noncurrent assets (\$4,805) equals total assets (\$7,039).
- **Item BB:** 2020 Total liabilities and stockholders' equity: Total liabilities and stockholders' equity is equal to total assets (\$7,039).
- **Item AA:** 2020 Total stockholders' equity: Current liabilities (\$1,463) plus noncurrent liabilities (\$2,252) equals total liabilities (\$3,715). Total liabilities and stockholders' equity (\$7,039) less total liabilities (\$3,715) equals total stockholders' equity (\$3,324).
- **Item Z:** 2020 Contributed capital: Contributed capital plus retained earnings equals total stockholders' equity. Therefore, total stockholders' equity (\$3,324) less retained earnings (\$1,924) equals contributed capital (\$1,400).

P2-5. Converting from cash to accrual basis

. Accounts receivable						
Beginning accounts receivable	\$128,000					
		\$319,000	Cash received on account			
Solve for:						
sales on account	\$326,000					
Ending accounts receivable	\$135,000					

Requirement 1:

Requirement 2:

Salaries payable					
		\$8,000	Beginning salaries payable		
Cash paid for salaries	\$47,000				
			Solve for:		
		\$44,000	salary expense		
		\$5,000	Ending salaries payable		

Requirement 3:

To solve for cost of goods sold we must first determine the amount of inventory purchases for August by analyzing Accounts payable.

Accounts payable

Cash paid to suppliers	\$130,000	\$21,000	Beginning accounts payable
	<i>↓,</i>	\$134,000	Solve for: purchases on account
		\$25,000	Ending accounts payable

We can now solve for Cost of goods sold by using the amount of inventory purchases in the analysis of the Inventory account.

Inventory					
Beginning inventory	\$33,000				
Purchases (solved above)	\$134,000				
		\$142,000	Solve for: cost of goods sold		
Ending inventory	\$25,000				

P2-6. Journal entries and statement preparation

a. DR Cash CR Common stock	\$90,000	\$90,000
b. DR Equipment CR Cash	\$30,000	\$30,000
DR Depreciation expense CR Accumulated depreciation [(\$30,000 - \$5,000)/ 60 months]	\$ 417	\$ 417
c. DR Inventory CR Accounts payable	\$15,000	\$15,000
DR Accounts payable CR Cash	\$10,000	\$10,000
d. DR Rent expense DR Prepaid rent CR Cash	\$500 1,000	\$ 1,500
e. DR Utilities expense CR Cash	\$ 800	\$ 800

f. DR Accounts receivable CR Sales revenue	\$35,000	\$35,000
DR Cash CR Accounts receivable	\$26,000	\$26,000
<pre>DR Cost of goods sold CR Inventory (\$15,000 x .60 = \$9,000)</pre>	\$9,000	\$ 9,000
g. DR Wages expense CR Wages payable CR Cash	\$ 5,600	\$ 400 5,200
h. DR Cash CR Notes payable	\$12,000	\$12,000
DR Notes payable CR Cash	\$ 3,000	\$ 3,000
DR Interest expense CR Interest payable	\$ 450	\$ 450

Bob's Chocolate Chips and More Income Statement For Month Ended October 31, 2017					
Sales revenue Less: Cost of goods sold Gross margin			\$	35,000 9,000 26,000	
Less: Operating expenses Wages expense Rent expense Utilities expense Depreciation expense Interest expense Net income	\$	5,600 500 800 417 450	\$	7,767 18,233	

Bob's Chocolate Chips and More Balance Sheet October 31, 2017					
Assets Cash			\$	77,500	
Accounts receivable Inventory Prepaid rent				9,000 6,000 1,000	
Equipment Less: Accumulated depreciation	\$	30,000 417			
Net equipment Total assets			\$	29,583 123,083	
Liabilities					
Accounts payable Interest payable			\$	5,000 450	
Wages payable				400	
Notes payable				9,000	
Total liabilities Shareholders' equity				14,850	
Common stock				90,000	
Retained earnings				18,233	
Total shareholders' equity			_	108,233	
Total liabilities and shareholders' equity			\$	123,083	

P2-7. Determining income from continuing operations and gain (loss) from discontinued operations

(AICPA adapted)

Requirements 1 and 2:

The amounts to be reported for income from continuing operations after taxes excludes the losses from the discontinued operations.

Helen Corporation Partial Income Statement For the Years Ended December 31							
		<u>2017</u>	<u>2016</u>				
Income from continuing operations, before taxes	\$	1,600,000	\$ 1,200,000				
Loss from operation of discontinued division, before taxes, added back Income from continuing operations,		640,000	500,000				
before taxes (excluding discontinued _ division):		2,240,000	1,700,000				
Provision for income taxes (35%)		784,000	595,000				
Income from continuing operations, after taxes Discontinued operations:		1,456,000	1,105,000				
Loss from operation of discontinued division, net of tax benefits of \$224,000 in 2017 and \$175,000 in							
2016		(416,000)	(325,000)				
Gain from sale of discontinued division, net of tax of \$315,000		585,000	-				
Net income	\$	1,625,000	<u>\$ 780,000</u>				

The following analysis derives the adjusted income statements shown above:

		2017			2016	
	As Reported	As Reported Adjustments		As Reported	Adjustments	Adjusted
Operating income	\$1,600,000	\$640,000 (1)	\$2,240,000	\$1,200,000	\$500,000 (1)	\$1,700,000
Gain on sale of division	900,000	(900,000) (2)	0	0	_	0
Net income before taxes	2,500,000		2,240,000	1,200,000		1,700,000
Provision for income taxes	(875,000)) (224,000) (1) 315,000 (2)	(784,000)	(420,000) (175,000) (1)) (595,000)
Income from continuing operations	1,625,000		1,456,000	780,000	-	1,105,000
Loss from operation of discontinued division, net of tax benefit of \$224,000 in 2017 and \$175,000 in 2016		(416,000) (1)	(416,000)		(325,000) (1)) (325,000)
Gain from sale of discontinued division, net of tax of \$315,000		585,000 (2)	585,000			
	\$1,625,000		\$1,625,000	\$780,000	-	\$780,000

(1) Reclassify operating income and associated tax effect of discontinued operations.

(2) Reclassify gain on sale and associated tax effect.

P2-8. Discontinued operations components held for sale

Silvertip Construction, Inc. Partial Income Statement For the Year Ended December 31, 20	17	
Income from continuing operations Discontinued operations:	\$	1,650,000
Loss from operation of held for sale business component, net of tax benefit of \$33,250 Impairment loss on held for sale component,		*(61,750)
net of tax benefit of \$24,185		**(44,915)
Net income	<u>\$</u>	1,543,335
Earnings per share: Income from continuing operations Discontinued operations: Loss from operation of held for sale business	\$	1.65
component, net of tax Impairment loss on held for sale component,		(0.06)
net of tax	<u> </u>	<u>(0.05)</u>
Net income	<u>\$</u>	1.54

* Operating loss on component

= pretax loss x $(1 - \tan rate) =$ \$95,000 x (1 - .35) =\$61,750

** Impairment loss on component:

Book value		\$760,000
Estimated selling price Less: Brokerage commission (6%)	\$735,000 44,100	
Estimated net realizable value	-	690,900
Pretax loss		69,100
Tax benefit (35%)		24,185
Aftertax loss	-	\$44,915

P2-9. Reporting a change in accounting principle

Requirement 1:

GAAP requires an entity to report a change in accounting principle through retrospective application of the new accounting principle to all prior periods, unless it is impracticable to do so, as is the case here. When it is impracticable to determine the cumulative effect of applying a change in accounting principle to any prior period, the new accounting principle shall be applied as if the change were made prospectively as of the earliest date practicable. Because Barden did not maintain inventory records on a LIFO basis in prior periods, which would have been necessary to apply LIFO retrospectively, the December 31, 2016 FIFO ending inventory becomes the beginning inventory on January 1, 2017 when LIFO was adopted. This inventory becomes the first "LIFO layer."

Requirement 2:

Effective January 1, 2017 the Company adopted the LIFO cost flow assumption for valuing its inventories. The Company believes that the use of the LIFO method better matches current costs with current revenues. It was not practical to apply the change retrospectively to prior years because inventory records in prior years were not maintained on a LIFO basis. The effect of the change on current year fiscal results was to decrease net income by \$45,500, or \$4.55 per share. If the LIFO method of valuing inventories were not used, inventories at December 31, 2017 would have been valued \$70,000 higher.

Note to the instructor: The effect on the change in inventory method on 2017 income is determined as follows:

December 31, 2017 LIFO Inventory	\$ 275,000
December 31, 2017 FIFO Inventory	 345,000
Change in pretax income due to use of LIFO	(70,000)
Tax effect	 24,500
Change in net income due to use of LIFO	\$ (45,500)

P2-10. Disclosures for change in accounting principle

Requirement 1:

ABBA Fabrics, Inc.			
Balance Sheets		(Restated)	
December 31,	2017	2016	
(in thousands)			
Current assets:			
Cash and cash equivalents	\$ 2,338	\$ 2,280	
Receivables, less allowance for doubtful accounts	3,380	4,453	
Inventories, net	104,156	114,289	
Other current assets	1,735	9,866	
Total current assets	111,609	130,888	
Long-term assets	53,065	56,438	
Total assets	164,674	187,326	
Total liabilities	117,325	123,888	
Common stock	88,348	75,650	
Retained earnings	124,907	137,335	
Treasury stock	(153,684)	(153,622)	
Accumulated other comprehensive income	(12,222)	4,075	
Total liabilities and shareholders' equity	\$ 164,674	\$ 187,326	
	As Originally		
Derivation of restated 2016 Balance Sheet:	<u>Reported</u>	<u>Adjust.</u>	Restated
Current assets:			
Cash and cash equivalents	\$ 2,280		\$ 2,280
Receivables, less allowance for doubtful accounts	4,453		4,453
Inventories, net	77,907	36,382	114,289
Other current assets	9,866		9,866
Total current assets	94,506		130,888
Long-term assets	56,438		56,438
Total assets	\$ 150,944		<u>\$ 187,326</u>
Total liabilities	\$ 123,888		\$ 123,888
Common stock	75,650		75,650
Retained earnings	100,953	36,382	137,335
Treasury stock	(153,622)		(153,622)
Accumulated other comprehensive income	4,075		4,075
Total liabilities and shareholders' equity	<u>\$ 150,944</u>		<u>\$ 187,326</u>

ABBA Fabrics, Inc.			
Statements of Operations		(Restated)	
Years Ended December 31,	2017	2016	
(in thousands)			
Sales	\$ 276,381	\$ 276,247	
Cost of goods sold	(156,802)	(158,667)	
Gross profit	119,579	117,580	
Selling, general and administrative expenses	(112,106)	(117,815)	
Depreciation and amortization	(4,409)	(3,815)	
Operating income (loss)	\$ 3,064	<u>\$ (4,050)</u>	
Derivation of restated 2016 Statement of Operations:	As Originally		
	Reported	Adjusts.	Restated
x	\$ 276,247		\$ 276,247
Cost of goods sold	(157,617)	(1,050)	(158,667)
Gross profit	118,630		117,580
Selling, general and administrative expenses	(117,815)		(117,815)
Depreciation and amortization	(3,815)		(3,815)
Operating income (loss)	<u>\$ (3,000</u>)	<u>\$ (1,050)</u>	<u>\$ (4,050</u>)

Restated cost of goods sold is determined as follows. (Bold items are given in the problem):

	2016	LIFO	2016
	LIFO	Adjustment	WAC
	As reported		Adjusted
Beginning inventory	127,574	37,432	165,006
Purchases	107,950		107,950
Goods available for sale	235,524	_	272,956
Less: Ending inventory	(77,907)	(36,382)	(114,289)
Cost of Goods sold	157,617	1,050	158,667

Requirement 2:

Retrospective Application of a Change in Accounting Principle During the fourth quarter of 2017, the Company elected to change its method of valuing inventory to the weighted average cost ("WAC") method, whereas in all prior years inventory was valued using the last-in, first-out (LIFO) method. The Company has determined that the WAC method of accounting for inventory is preferable as the method better reflects our inventory at current costs and enhances the comparability of our financial statements by changing to the predominant method utilized in our industry. The Company has applied this change retrospectively to the consolidated financial statements for the years 2016 and 2015 as required by FASB ASC Section 250: Accounting Changes and Error Corrections. Accordingly, the previously reported retained earnings as of December 31, 2016 increased by \$36.4 million. The effect of the change on the previously reported Consolidated Statement of Operations and Consolidated Balance Sheet are reflected in the tables below (in thousands):

Consolidated Statements of Operations for the fiscal year ended December 31, 2016

		2016				2016
						As
			L	JFO	pre	viously
(in thousands)	A	s restated	<u>Adjı</u>	istment	re	ported
Cost of goods sold	\$	158,667	\$	1,050	\$	157,617
Gross profit		117,580		(1,050)		118,630
Operating loss		(4,050)		(1,050)		(3,000)

Consolidated Balance Sheet as of December 31, 2016

(in thousands)	As	s restated	LIFO justment	-	previously ported
Assets Current assets: Inventories Total current assets Total assets	\$	114,289 130,888 187,326	\$ 36,382 36,382 36,382	\$	77,907 94,506 150,944
Shareholders' Equity					
Shareholders' equity: Retained earnings Total shareholders' equity Total liabilities and shareholders' equity	\$	137,335 63,438 187,326	\$ 36,382 36,382 36,382	\$	100,953 27,056 150,944
P2-11. Change in accounting policy

Requirement 1:

Under the new accounting method, in a year there is a cumulative gain or loss in Accumulated other comprehensive income (AOCI) at the end of the year, the amount by which that gain or loss exceeds the recognition threshold is recognized in net income immediately and "recycled" out of AOCI. There would be no recognition of gain or loss in the subsequent year unless an additional gain or loss put the cumulative unrecognized amount past the threshold again. In contrast, under the old accounting method, only a portion of the excess is recognized in net income, leaving the unrecognized gain or loss above the threshold going into the next year. Unless a loss or gain brought the cumulative unrecognized gain or loss within the threshold, there would be recognition of additional gain or loss in the subsequent year.

The net effect of the change is to increase the volatility of reported earnings. When cumulative gains and losses are past the threshold, the entire excess, rather than just a portion is recognized. However, there is then a smaller chance that an additional gain or loss would be recognized in the next year.

Requirement 2:

Gains and losses on the pension plan are not related to the fundamental operating profitability of the firm. So, it is important for an analyst to understand how those gains and losses affect reported income. Through that understanding, the analyst is better able to disentangle the effects of those gains and losses to get a clearer picture of the firm's operations. When the accounting for the gains and losses changes, how the analyst disentangles their effects changes.

P2-12. Manipulation of receivables

Accounts receivable turnover = sales ÷ average accounts receivable.

Days sales outstanding = 365 ÷ Accounts receivable turnover.

A growing days sales outstanding figure is often a telltale sign that a company's receivables are impaired due to channel stuffing or other revenue recognition issues. This growth results from receivables growing at a faster rate than sales; the growth rate disparity is attributable to a lack of cash collections on the "managed" sales. The spike in Holman's days sales outstanding figure could have raised questions from analysts (and auditors)

about the company's revenue recognition practices that the CFO probably did not want to have raised. The actions taken, which were not disclosed, may have been intended to create an illusion of normal business activity and thus avert scrutiny of the growing trade receivables.

P2-13. Correction of errors and worksheet preparation

	Effect on income		ome	Accounts to be adjusted
Description	2015	2016	2017	Dr. Cr.
Reported income Item 1.	\$(24,000)	\$ 43,000	\$ 40,000	
Prepaid rent—2015	5,000	(5,000)		Counterbalancing error
Prepaid rent—2016		4,500	(4,500)	Counterbalancing error
Prepaid rent—2017			4,900	Prepaid rent, Retained earnings \$4,900 \$4,900
Item 2.				
Accrued wages—2015	(12,000)	12,000		Counterbalancing error
Accrued wages—2016		(13,500)	13,500	Counterbalancing error
Accrued wages—2017			(8,300)	Retained earnings, Accrued wages, \$8,300 \$8,300
Item 3.				
				Accumulated
Depreciation	3,500	(7,000)	(6,000)	Retained earnings, Depr., \$9,500 \$9,500
Item 4.				ψ5,000 ψ5,000
Gain on machinery				Accumulated Depr., Gain on sale, \$2,000 \$2,000
				φ2,000 φ2,000
Adjusted income	<u>\$(27,500)</u>	<u>\$ 34,000</u>	<u>\$ 39,600</u>	

Error corrections worksheet

P2-14. Correcting errors

1) Correcting entries in 2017 for equipment improperly exp DR Office equipment	ensed in 2 \$5,000	2016:
CR Accumulated depreciation (1 year)		\$1,250
CR Retained earnings		3,750
To capitalize equipment purchased in 2016 and improperly expense	d.	
DR Depreciation expense CR Accumulated depreciation	\$1,250	\$1,250
To record 2017 depreciation on equipment ($$5,000 \div 4 = $1,250$)		

 2) To capitalize vehicle improperly expensed in 2017: DR Vehicle CR Vehicle expense To properly capitalize vehicle that was expensed when purchased. 	\$18,000	\$18,000
 DR Depreciation expense CR Accumulated depreciation 2017 depreciation on capitalized vehicle = (\$18,000 - \$3,000) ÷ = \$2,500 	\$2,500 3 x .5	\$2,500
 3) To correct prepaid rent improperly charged to "Buildings DR Prepaid rent CR Buildings To correctly record rent prepayment. 	s" account 18,000	:: \$18,000
 DR Rent expense CR Prepaid rent 2017 adjusting entry to record use of warehouse for 6 months. 	\$9,000	\$9,000
 4) To correct error in accounting for receivables: DR Retained earnings \$ CR Accounts receivable To correct overstatement of revenue in 2016 and record correctivable 	23,500 ollection o	\$23,500 f account
DR Accounts receivable\$CR Bad debt expense\$To reverse improper write-off of account receivable in 2017.	23,500	\$23,500
 5) To correct error in recording prepaid insurance: DR Insurance expense DR Prepaid insurance CR Retained earnings To correct overstatement of expense in 2016 and record 2017 insur 	510,000 10,000 rance expen	\$20,000 ise.
6) To record adjustment for failure to accrue interest expe	·	

To correct failure to accrue interest in 2016 for 3 months = $3/12 \times$ \$8,000.

DR Interest expense CR Interest payable

2017 adjusting entry to accrue interest for 3 months (Oct. 1 to Dec. 31, 2017).

\$2,000

\$2,000

Financial Reporting and Analysis (7th Ed.) Chapter **2** Solutions Accrual Accounting and Income Determination Cases

Cases

C2-1. Conducting financial reporting research: Discontinued operations

Requirement 1:

FASB ASC Paragraph 360-10-45-9 specifies the following criteria to be met in order to classify assets as held for sale:

- a. Management commits to a plan to sell the assets.
- b. The assets are available for immediate sale in their present condition subject only to terms that are usual and customary for sales of such assets.
- c. An active program to locate a buyer and other actions required to complete the plan to sell the assets have been initiated.
- d. The sale of the assets is probable, and transfer of the assets is expected to qualify for recognition as a completed sale within one year.
- e. The assets are being actively marketed for sale at a price that is reasonable in relation to their current fair value.
- f. Actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

Management's classification of the business units in question as discontinued operations indicates that these conditions were met.

Requirement 2:

At issue is whether the regulatory approval delay violates the requirement that assets be transferred within one year to qualify for "held for sale" treatment. FASB ASC Paragraph 360-10-45-11 lists several exceptions to the "one-year" requirement for completing the sale. Waiting for pending regulatory approval would qualify as such an exception if management reasonably expected approval would ultimately be granted. Thus, the intended sale of the Rohrback Cosasco Systems division should be treated as a discontinued operation.

Requirement 3:

The scenario for this requirement implies that management's plans have changed since the original disposal plan was adopted. Clearly, the unit in question is no longer available for immediate sale. While it is permissible to continue to classify assets as held for sale when conditions are unexpectedly imposed that delay transfer of the assets, actions must have been initiated or will be initiated on a timely basis—to respond to the conditions. Management's decision to defer remediation until it is less expensive to do so leads to the conclusion that this business unit should no longer be classified as held for sale.

Requirement 4:

Corrpro's net income would not be affected by denying discontinued operations treatment to these business units. However, Corrpro has suffered losses from continuing operations in each of the last three years. These operating losses would appear even more severe if the losses from operations now classified as discontinued were included. Given the focus of many analysts on continuing operations, management will likely prefer that these non-core business units remain classified as they were in Year 3.

C2-2. Retrospectively applying a change in accounting principle

Requirement 1:

		As	adjusted
Income Statements	2017		2016
Sales	\$ 6,000	\$	6,000
Cost of Goods Sold	2,200)	1,880
Selling, general, & administrative expenses	1,800		1,800
Net income	\$ 2,000	\$	2,320

Requirement 2:

On January 1, 2017, Neville Company changed its method of valuing its inventory to the FIFO method; in all prior years the LIFO method was used to value inventory. The new method of accounting was adopted to bring Neville Company into conformity with prevailing practices in its industry and comparative financial statements of prior years have been adjusted to apply the new method retrospectively. The following financial statement line items for fiscal years 2017 and 2016 were affected by the change in accounting principle.

Income Statements 2017		omputed der LIFO		Reported er FIFO		ect of ange
Sales	\$	6,000	\$	6,000	\$	-
Cost of Goods Sold		2,260		2,200	\$	(60)
Selling, general, & administrative expenses		1,800		1,800	\$	-
Net Income	\$	1,940	\$	2,000	\$	60
	As O	riginally		As	Eff	ect of
2016		riginally ported	Ac	As ljusted		ect of ange
2016 Sales			A a \$			
	Re	eported		ljusted	Ch	
Sales	Re	eported 6,000		ljusted 6,000	Ch \$	ange -

C2-3. Channel stuffing

Requirement 1

The Securities and Exchange Commission alleged that ClearOne improperly recognized revenue, thus inflating net income and accounts receivable, through "channel stuffing." According to the complaint, the company shipped inventory to distributors near quarter ends with the understanding that the distributors did not have to pay for these products until the distributors resold them. Some distributors were given the right to return or exchange inventory they were unable to sell.

Physically transferring inventory to a distributor, but not requiring the distributor to pay until the goods are resold, does not meet the criteria for revenue recognition. This case pre-dates the new revenue recognition rules, so the guiding principle would have been that the earnings process is substantially complete and collection is reasonably assured. Those criteria are clearly not met in the circumstances described. (Even under the new revenue recognition rules, it would have been inappropriate to recognize revenue.)

Requirement 2

Following are the fiscal 2002 and 2001 income statements as originally reported and as restated (amounts in thousands of dollars).

Impact on Consolidated Statements of Operations

	As of June 30, 2002			As of June 30, 2001			
		reviously eported		Restated	As Previously Reported		Restated
Revenue:							
Product	\$	37,215	\$	26,253	\$ 28,190	\$	22,448
Conferencing services		17,328		15,583	11,689		11,689
Business services		-		1,526	-		-
Total revenue		54,543		43,362	39,879		34,137
Cost of goods sold:							
Product		15,057		10,939	10,634		8,789
Product inventory write-offs		-		2,945	-		416
Conferencing services		7,943		7,310	5,869		5,928
Business services		-		978	-		-
Total cost of goods sold		23,000		22,172	16,503		15,133
Gross profit		31,543		21,190	23,376		19,004
Operating expenses:							
Marketing and selling		10,705		10,739	7,753		7,711
General and administrative		6,051		5,345	4,649		4,198
Research and product development		4,053		3,810	2,502		2,747
Impairment losses		-		7,115	-		-
Gain on sale of court conferencing assets		-		(250)	-		-
Purchased in-process research and development		-		-	-		728
Total operating expenses		20,809		26,759	14,904		15,384
Operating income (loss)		10,734		(5,569)	8,472		3,620
Other income, net		509		132	373		188
Income (loss) from continuing operations before				(5.425)	0.045		2 000
income taxes		11,243		(5,437)	8,845		3,808
Provision for income taxes		3,831		1,400	3,319		1,050
Income (loss) from continuing operations		7,412		(6,837)	5,526		2,758
Discontinued operations:							
Income from discontinued operations, net of income taxes		-		-	737		737
Gain on disposal of a component of our business, net of income taxes		-		176	1,220		123
Net income (loss)	\$	7,412	\$	(6,661)	\$ 7,483	\$	3,618

ClearOne had overstated revenue by \$11.2 million (\$54,543,000 – \$43,362,000) and \$5.7 million (\$39,879,000 – \$34,137,000) in fiscal 2002 and 2001, respectively. However, cost of goods sold was misstated by relatively small amounts in those years, resulting in restatements of gross profit amounting to \$10.4 million (\$31,543,000 – \$21,190,000) and \$4.4 (\$23,376,000 – \$19,004,000). After originally reporting net income of \$7.4 million in fiscal 2002, the restated income statement shows a loss for that period of \$6.7 million. In fiscal 2001, net income was reduced from \$7.5 million to \$3.6 million.

C2-4. Earnings management

The ethical issues involved are integrity and honesty in financial reporting, full disclosure, and the accountant's professionalism. In violating GAAP, the Chief Accounting Officer also violated the AICPA's Code of Professional Conduct. Various parties were affected by the conduct of the Chief Accounting Officer (and others in Mystery Technologies management).

<u>Honesty in financial reporting</u>: Although estimates are pervasive in the preparation of financial statements, accounts are expected to use their best expectations in making those estimates, and are not permitted to base estimates on desired reporting outcomes rather than beliefs about the underlying economics.

<u>Full disclosure</u>: Accountants are expected to provide disclosures that are sufficient to make the financial statements not misleading. Thus, failing to disclose the over-reserve was a violation of securities laws.

<u>Professionalism</u>: Accountants are expected to act in the interests of the financial statement users in order to provide faithful representation of the firm's economic situation. This requirement is inconsistent with over-reserving in order to prop up subsequent period earnings artificially.

Note to the instructor: Details of the SEC's complaint against the company this case is based on can be found at: www.sec.gov/litigation/complaints/comp18194.htm

- The Chief Accounting Officer pleaded guilty to criminal charges based on his conduct at Mystery Technologies, the result of which was various monetary penalties and the loss of future employment opportunities.
- Mystery Technologies, after an SEC investigation, was charged with filing false and misleading financial statements.
- Mystery Technologies' auditors were named in shareholder lawsuits filed as a result of the false and misleading financial statements. The firm's professional reputation cannot be enhanced by the fact that the firm did not detect earnings management schemes involving millions of dollars.

- Investors in Mystery Technologies' stock suffered. Note to the instructor: By Year 0, Mystery Technologies' stock had climbed to over \$40 per share where it more or less remained before falling rapidly to the low teens in June of Year 1—about the time that it became public that the SEC was investigating Mystery Technologies' reported earnings. (While this drop in share price may have been purely the result of a down market at the time, suits were filed that allege otherwise.)
- The accounting profession suffers in the eyes of the public whenever one of its members acts unprofessionally.
- Employees of Mystery Technologies were placed in a position where their superiors were pressuring them to engage in unethical and/or illegal practices.

CHAPTER 2

ACCRUAL ACCOUNTING AND INCOME DETERMINATION

CHAPTER OVERVIEW

- This chapter highlights the key differences between cash and accrual income measurement.
- In most instances, accrual-basis revenues do not equal cash receipts and accrual expenses do not equal cash disbursements.
- The principles that govern revenue and expense recognition under accrual accounting are designed to alleviate the mismatching of effort and accomplishment that occurs under cash-basis accounting.
- The matching principle determines how and when the assets that are used up in generating the revenue or that expire with the passage of time are expensed.
- Relative to current operating cash flows, accrual earnings generally provide a more useful measure of firm performance and serve as a more useful benchmark for predicting future cash flows.
- Predicting future cash flows and earnings is critical to assessing the value of a firm's shares and its creditworthiness.
- Multiple-step income statements are designed to facilitate this forecasting process by isolating the more recurring or sustainable components of earnings from the nonrecurring or transitory earnings components.
- GAAP disclosure requirements for various types of accounting changes also facilitate the analysis of company performance over time.
- This chapter outlines some common ways earnings are managed, some of which have come under SEC scrutiny. Auditors and financial statement users must be aware of the incentives to manage earnings and the ways in which this is accomplished.
- Once discovered, accounting errors or irregularities must be corrected and disclosed through restatement.
- Public companies must report EPS numbers on the face of their income statements. All firms report basic EPS based on the weighted average number of shares actually outstanding during the period, while firms with complex capital structures also disclose diluted EPS, which reflects the EPS that would result if all potentially dilutive securities were converted into common shares.
- Certain changes in net assets resulting from incomplete or open transactions bypass the income statement and are reported as direct adjustments to stockholders' equity. These direct adjustments are called *other comprehensive income components*. Under U.S. GAAP, firms are required to report the components of other comprehensive income in either a single-statement format or a two-statement format.

CHAPTER OUTLINE

- I. Cash Flow Versus Accrual Income Measurement
 - A. Articulation of Income Statement and Balance Sheet
 - B. Revenue Recognition—General Concepts
 - C. Expense Recognition

Teaching Tip: For-profit entities adopt accrual accounting because of its ability to provide investors and creditors with a more realistic picture of relevant economic events and their effects on firm activities. On the other hand, entities that do not have a profit motive may prefer a cash-basis accounting system because of its simplicity.

II. Income Statement Format and Classification

- A. Income from Continuing Operations
- B. Discontinued Operations
- C. Frequency and Magnitude of Various Categories of Transitory Income Statement Items

Teaching Tip: In forecasting future cash flows, a reader of the financial statements must determine whether the "special or unusual items" are sustainable or transitory. The increased occurrence of these items heightens the speculative nature of these forecasts. It is important to remember that financial statements are designed to measure the economic conditions (micro and macro) and financial management of the company to assist users in determining future cash flows. Companies doing well in a great economic environment may be in trouble during the next economic turn while a company that exceeds the competition results during a recession may emerge as a market leader.

III. Reporting Accounting Changes

- A. Change in Accounting Principle
- B. Change in Accounting Estimate
- C. Change in Reporting Entity

Teaching Tip: Changes in accounting principles generally do not result in direct changes in cash flows. The only exception is a change from the LIFO method of accounting for inventory (because of the LIFO conformity rule). Since changes in accounting principles generally do not affect the tax return, a change in principles used for financial reporting purposes affects only income tax expense and deferred income taxes.

IV. Earnings Management

A. Popular Earnings Management Devices

V. Accounting Errors, Earnings Restatements, and Prior Period Adjustments

VI. Earnings per Share

VII. Comprehensive Income and Other Comprehensive Income

VIII. Global Vantage Point

IX. APPENDIX 2A: Review of Accounting Procedures and T-Account Analysis

- A. Understanding Debits and Credits
- B. Adjusting Entries
- C. Posting Journal Entries to Accounts and Preparing Financial Statements
- D. Closing Entries
- E. Accounts Analysis as an Analytical Technique

Teaching Tip: There are several mnemonic devices available to help students organize the effects of debits and credits on the different types of accounts.

CHAPTER QUIZ

- 1. High Tower, Inc. owns and operates resort campgrounds in the U.S. It sells annual memberships that allow a member's family unlimited use of the company's campgrounds for a one-year period for an annual membership fee. Assuming High Tower produces quarterly financial statements, how should it recognize membership revenue?
 - a. Revenue should be recognized when the cash is received. .
 - b. Revenue should be recognized at the end of the membership period.
 - c. Membership sales should be recognized equally over the course of the year.
 - d. Membership sales should be recognized based on members' actual use of the facilities.
- 2. The matching principle encourages:
 - a. The recognition of expenses when cash is paid for supplies.
 - b. The recognition of expenses in the same period as the revenue was recognized.
 - c. The reconciliation of net income and comprehensive income in a separate financial statement.
 - d. The recording of period costs on the balance sheet.
- 3. When a company has decided to dispose of a component of its business which of the following is true?
 - a. The income or loss from that component should be reported as a component of operating income.
 - b. The income or loss from that component should be separated as an unusual item.
 - c. The income or loss from that component should not be included on the income statement.
 - d. The income or loss from that component should be reported as a discontinued operation.
- 4. If a company adopts a new FASB standard, it should be reported as
 - a. change in accounting principle.
 - b. change in accounting estimate.
 - c. change in accounting entity.
 - d. unusual item.
- 5. The use of accounting flexibility to meet earnings benchmarks is called
 - a. impression management.
 - b. earnings management.
 - c. profit manipulation.
 - d. accounting irregularities.
- 6. Accounting errors or irregularities can occur for which reasons?
 - a. Simple oversight
 - b. Misapplication of GAAP
 - c. management exploitation of the flexibility in GAAP

- d. All of these answer choices are correct.
- 7. The purpose of reporting nonrecurring items, net of related income taxes, below income from continuing operations is:
 - a. These items help explain deviations in current year net income from past trends.
 - b. These items assist in the task of predicting the timing and amount of future cash flows.
 - c. Neither a. nor b.
 - d. Both a. and b.
- 8. On November 1, 2016, Kris Co. paid \$7,200 to for a one year insurance policy on its equipment. With respect to this policy, what amounts should Kris report for prepaid insurance and insurance expense in its December 31, 2016, financial statements?

Prepai	d Insurance	Insurance Expense
a.	\$6,000	\$1,200
b.	\$7,200	\$0
c.	\$0	\$7,200
d.	\$0	\$0

- 9. Other comprehensive income components:
 - a. Are shown net of their related tax effects.
 - b. Include all changes in equity that do not affect the income statement.
 - c. Include realized gains and losses.
 - d. Eliminate the effects that unrealized gains and losses have on the financial statements.
- 10. A debit
 - a. increases Accounts Payable.
 - b. increases Cost of Goods Sold.
 - c. decreases Accounts Receivable.
 - d. decreases Equipment.

QUIZ ANSWERS:

- 1. *C*. Revenue should be recognized over the life of the contract.
- 2. *B*. The matching principle matches the recognition of expenses to the same period as the revenue was recognized.
- 3. *D*. Income or loss from the disposal of a component of a business should be reported as a discontinued operation.
- 4. *A*. If a company adopts a new FASB standard, it should be reported as a change in accounting principle.
- 5. *B*. The use of accounting flexibility to meet earnings benchmarks is known as earnings management.
- 6. *D*. All of these options can lead to accounting errors or irregularities.

- 7. *D*. The purpose of reporting nonrecurring items, net of related income taxes, below income from continuing operations is to help explain deviations in current year net income from past trends, and to assist in the task of predicting the timing and amount of future cash flows.
- 8. *C*. Insurance expense should be \$600 per month. As of December 31, there are still 10 months of coverage remaining. Therefore, \$6,000 is the balance in prepaid insurance. Insurance expense is \$600 per month for 2 months, or \$1,200.
- 9. A. Comprehensive income components are shown net of their related tax effects.
- 10. *B*. Debits increase assets, expenses and losses.

RECOMMENDED FIGURES AND EXHIBITS

- 1. Figure 2.1—Canterbury Publishing Comparison of Accrual-Based Earnings and Operating Cash Flow
- 2. Figure 2.2—Proportion of firms reporting nonrecurring items (2002–2014)
- 3. Exhibit 2.6—Types of Accounting Changes

Accrual Accounting and Income Determination

Revsine/Collins/Johnson/Mittelstaedt/Soffer: Chapter 2

FINANCIAL

REPORTING

Seventh Edition

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Revsine Collins Johnson Mittelstaedt

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Learning Objectives

After studying this chapter, you will understand:

- 1. The distinction between cash-basis versus accrual income and why accrual-basis income generally is a better measure of operating performance.
- 2. The general concept behind revenue recognition under accrual accounting.
- 3. The matching principle and how it is applied to recognize expenses under accrual accounting.
- 4. The difference between traceable and period costs.
- 5. The format and classifications for a multiple-step Income statement and how the statement format is designed to differentiate earnings components that are more sustainable from those that are more transitory.
- 6. The presentation of discontinued operations and unusual or infrequently occurring items.
- 7. How to report a change in accounting principle, accounting estimate, and accounting entity.



Learning Objectives, continued

After studying this chapter, you will understand:

- 8. How error corrections and restatements are reported.
- 9. The distinction between basic and diluted earnings per share (EPS) and required EPS disclosures.
- 10. What comprises comprehensive income and how it is displayed in financial statements.
- 11. Other comprehensive income differences between IFRS and GAAP.
- 12. How flexibility in GAAP invites "earnings management."
- 13. The procedures for preparing financial statements and how to analyze T-accounts.



Key Concepts And Practices that Govern the Measurement of Income

Under accrual accounting:

- Revenues are recorded (<u>recognized</u>) when the seller has performed a service or conveyed an asset to the buyer which entitles the seller to the benefits represented by the revenues, and the value to be received for that service or asset is reasonably assured and can be measured with a high degree of reliability.
- Expenses are <u>expired costs</u> or assets that are used up in producing those produce revenues.
 - Expense recognition is tied to revenue recognition commonly referred to as the "matching principle."
 - Expenses are recorded in the same accounting period in which the related revenues are recognized.



Cash Flow Versus Accrual Income Measurement

- Accrual accounting decouples measured earnings (i.e., revenues minus expenses) from the amount of cash generated from operations.
 - Accrual accounting revenues generally do not correspond to cash receipts for the period, nor do accrual expenses always correspond to cash outlays for the period.
 - Accrual accounting can produce large discrepancies between measured earnings and the amount of cash generated from operations (cash-basis earnings).
- Accrual accounting better matches economic benefit with economic effort, thereby producing a measure of operating performance—accrual earnings— that provides a more realistic picture of past economic activities.
- Many believe that accrual accounting numbers also provide a better basis for predicting future performance of an enterprise.



Canterbury Publishing

- In January 2017, Canterbury Publishing sells a three-year subscription to its quarterly magazine to 1,000 customers.
- Customers pay the full subscription price (\$300 = 12 issues x \$25 per issue) up front.
- Canterbury takes out a \$100,000 three-year loan. Interest at 10% per year is payable at maturity on December 31, 2019.
- The cost of publishing and distributing the magazine is \$60,000 each year, and is paid in cash at the time of publication.



Operating Cash Inflows and Outflows



Canterbury: Cash-Basis Entries (2017)

Operating Cash Inflows and Outflows

	2017	2018	2019	
Cash inflows	\$300,000	Ι	1	
Production and distribution Loan interest	l (60,000)	(60,000)	(60,000) (\$33,100)	
Cash-basis revenue a	ind expense e	entries for 20	<u>17:</u>	
DR Cash CR Subscription R	evenues		\$300,000	\$300,000
To record collection of	1,000 three-yea	r subscription at	\$300 each.	
DR Publishing and distr CR Cash To record publishing a			\$60,000 ash.	60,000



Canterbury: Cash-Basis Entries (2018 and 2019)

Cash-basis revenue and expense entries for 2018:

DRPublishing and distribution expense\$60,000CRCash\$60,000

To record publishing and distribution expense paid in cash.

Cash-basis revenue and expense entries for 2019:

DRPublishing and distribution expense\$60,000CRCash\$60,000

To record publishing and distribution expense paid in cash.

DR Interest expense\$33,100CR Cash\$33,100

To record interest expense paid on three-year loan.

With 10% interest compounded annually, the payment on December 31, 2019, would be $$100,000 \times 1.10^3 = $133,100$, of which \$33,100 would be interest.



Canterbury: Cash-Basis Summary

Cash-Basis Income Determination

	2017	2018	2019
Cash inflows	\$300,000	\$0	\$0
Cash outflows for production and distribution	(60,000)	(60,000)	(60,000)
Cash outflow for interest on loan	0	0	(33,100)
Operating cash flow	<u>\$240,000</u>	<u>(\$60,000)</u>	<u>(\$93,100)</u>



Canterbury: Accrual-Basis Journal and Adjusting Entries

Adjusting entries on December 31, 2017 DR Subscription revenue CR Deferred subscription revenue	\$200,000	\$200,000
<pre>DR Interest expense (\$100,000 x 10%) CR Interest payable</pre>	\$10,000	\$10,000
Adjusting entries on December 31, 2018 DR Deferred subscription revenue CR Subscription revenue	\$100,000	\$100,000
DR Interest expense [(\$100,000 + \$10,000) x 10%] CR Interest payable	\$11,000	\$11,000
Adjusting entries on December 31, 2019 DR Deferred subscription revenue CR Subscription revenue	\$100,000	\$100,000
<pre>DR Interest expense [(\$110,000 + \$11,000) x 10%] DR Interest payable CR Cash (interest portion only)</pre>	\$12,100 \$21,000	\$33,100



Canterbury Publishing Accrual-Basis Income Statements

	2017	2018	2019
Subscription revenue	\$100,000	\$100,000	\$100,000
Expenses:			
Publishing and distributior	n (60,000)	(60,000)	(60,000)
Interest	(10,000)	(11,000)	(12,100)
Net Income	\$30,000	\$29,000	\$27,900



Canterbury: Observations about Accrual-Basis

- Accrual accounting:
 - Decouples measured earnings from operating cash flows.
 - Better matches economic benefit (revenue from subscriptions) with economic effort (magazine publication and distribution expenses and interest costs).
 - Produces producing a measure of operating performance that provides a more realistic picture of past economic activities.





Articulation of Income Statement and Balance Sheet

- Two things happen when income is recognized in the financial statements:
 - 1. <u>Owners' equity</u> is increased by the amount of the income.
 - 2. <u>Net assets</u> (that is, gross assets minus gross liabilities) are increased by an identical amount.
- Thus there are two identical ways of thinking about income recognition:

ASSETS – LIABILITES

Income increases net assets

OWNERS' EQUITY

Income (revenues minus expenses) increases owners' equity

• Net asset valuation and income determination are interrelated.



How Income Affects the Balance Sheet

Step |: Revenue recognition

Assets	=	Liabilities	+	Owners' equity
+\$130 Cash				+\$130 Sales revenue

Step 2: Expense matching

Assets	=	Liabilities	+	Owners' equity
-\$100 Inventory				-\$100 Cost of goods sold

SUBSEQUENT BALANCE SHEET

Asset	s	Liabilities + Owners' equity	
Cash	\$130	Liabilities	\$ —
Inventory		Initial equity + increase in equity:	\$100
		Income (+\$130 - \$100)	30
	\$130		\$130



A Critical Accounting Question

At what point is it appropriate to recognize that a firm's net assets have increased in value and thus recognize income?

- Step 1: Revenue is recognized when an entity satisfies its contractual obligation to provide goods and services to a customer.
- Step 2: The matching principle associates expired costs (expenses) with the revenues recognized in a period.



Operating Cycle



Revenue Recognition—General Concepts

- Recently, the FASB and IASB issued a joint pronouncement that revamped the standards for revenue recognition.
 - The new standard replaced a patchwork of rules, many of which were industry-specific, with a single framework for when revenue is to be recognized. (We explore this standard in detail in Chapter 3.)
- For now, think of the point at which revenue is to be recognized as the point at which the entity has satisfied its obligation to provide goods or services to a customer.



Expense Recognition

- Once revenue for a period has been determined, the next step in determining income is to accumulate and record the costs associated with generating the revenue.
- There are two types of costs associated with generating revenue:
 - Traceable costs are easily traced to the revenue earned.
 - Period costs are also clearly important in generating revenue, but their contribution to a specific sale is difficult, if not impossible, to quantify.



Traceable Costs

- **Matching** process: Traceable costs are recognized in expense in the same period as the corresponding revenue is recognized.
- Product costs:
 - Costs of physically producing a good.
 - Often constitute a large portion of the traceable costs.
 - Also include manufacturing overhead (factory maintenance, insurance, depreciation, etc.)
 - It is difficult to associate overhead costs with specific units of production.
 - Generally allocated to inventory costs (and thus expensed as part of cost of goods sold) on some rational basis.



Canterbury's Traceable Costs

- Recall that Canterbury Publishing sells subscriptions to its quarterly magazine to customers.
- Canterbury's product costs:
 - The cost of physically producing each copy of the magazine is traceable to the revenue for that copy.
- Canterbury's other traceable costs:
 - The distribution costs are assumed also to be traceable.
 - It is possible to identify the delivery costs with the physical delivery of the magazines.
 - These are not product costs, but they are still recognized as expense in the same period as the revenue to which they are traced.



Canterbury's Period Costs

Recall that Canterbury Publishing also incurred interest expense.

- Canterbury's period costs:
 - Although interest is a necessary cost, it is not possible to associate interest with specific copies of the magazine.
 - Thus, it is a period cost and it is expensed in the period the benefit was derived.
- Period costs are not expensed on a cash basis.
 - The interest was all paid in 2019, but it was still expensed over the years the loan was outstanding, which is the period of time Canterbury benefited from the use of the borrowed funds.



Income Statement Format and Classification

- Virtually all decision models in modern corporate finance are based on expected future cash flows.
- Financial reporting seeks to satisfy users' needs by providing financial information in a format that gives users reliable and representative baseline numbers for generating *their own* forecasts of future cash flows.
- The income statement separates earnings into two components:
 - Continuing operations
 - "Sustainable" or likely to be repeated in future reporting periods
 - Discontinued operations "transitory"


"Transitory" Earnings

	EXHIBIT 2.2	Mythical Corpora	Material events that arise from a irm's ongoing, continuing activities that are unusual in nature				
	Income Statements for the Years Endert						
	(\$ in millions)		2017	2016	2015		
Income from Continuing Operations	Net sales		\$3,957	\$3,478	\$3,241		
	Costs of goods sold		(1,364)	(1,189)	(1,096)		
	Gross profit		2,593	2,289	2,145		
	Selling, general and administrative expenses		(1,093)	(949)	(922)		
	① Unusual or infrequently occurring items (Note 1)		(251)				
	Income from continuing operations before income taxes		s 1,249	1,340	1,223		
	Income tax expense		(406)	(436)	(411)		
	Income from continuing operations		843	904	812		
Unusual or	3 Discontinued operations	s (Note 2)	7				
Infrequently	Income from Acontinue		203	393	528		
Occurring	Gain on disposal of discontinued						
Items	business segment, net	of tax of \$53	98				
	Net income		\$1,144	\$1,297	\$1,340		

Transactions related to certain operations the firm intends to discontinue or has already discontinued

FINANCIAL REPORTING ANALYSIS ANALYSIS

Unusual or Infrequently Occurring Items

- Unusual or infrequently occurring items
 - Gains and losses (usually losses) that arise from a firm's continuing operations, but that are not typical, recurring costs.
 - Reported as separate line items in the continuing operations section of the income statement.
 - Examples:
 - Write-downs or write-offs of receivables, inventory, equipment leased to others, and intangibles
 - Gains or losses from the exchange or translation of foreign currencies
 - Gains or losses from the sale or abandonment of property, plant or equipment
 - Special one-time charges from corporate restructurings
 - Gains or losses from the sale of investments
 - Losses from floods, fires, or other disasters



Discontinued Operations

- Transactions related to certain operations the firm intends to discontinue or has already discontinued are separated from other income statement items.
- Discontinued operations will not generate *future* operating cash flows.
- Classification on income statement:
 - The operating results of discontinued operations are excluded from continuing operations in the current period when the decision to discontinue was made.
 - In addition, they are excluded from continuing operations in any prior years for which comparative data are provided.
 - Net income for those prior years are the same as originally reported; the amounts removed from continuing operations are reclassified to discontinued operations.



Discontinued Operations: Criteria

- The **component of an entity** must comprise operations and cash flows that can be clearly distinguished from the rest of the entity.
 - If component has been disposed of:
 - It is treated as a discontinued operation if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results.
 - If the component has not yet been disposed of:
 - It must first be determined whether it is classified as **held** for sale.
 - If the component is deemed to be held for sale, then it also must meet the strategic shift criterion to be given discontinued operations treatment.



Held for Sale

- A disposal group is considered held for sale if the following six conditions are met:
 - Management has committed to a plan to sell the component.
 - The component is available for immediate sale in its present condition subject only to terms that are usual and customary.
 - An active program to locate a buyer has been initiated, as have all other necessary actions.
 - The sale is probable, and is expected to be completed within one year (subject to certain exceptions).
 - The component is being actively marketed at a reasonable price.
 - It is unlikely that significant changes will be made to the disposal plan or that it will be withdrawn.



Amounts Reported When Disposal Group Has Been Sold

- When the discontinued component is sold before the end of the reporting period, companies report two elements as part of discontinued operations:
 - Operating income or loss (that is, revenue minus expenses) from operating the component from the beginning of the reporting period to the disposal date, net of related tax effects.
 - Gain or loss on disposal computed as the net sale price minus book value of net assets disposed of, net of related tax effects.



Amounts Reported When Disposal Group Is Considered "Held for Sale"

- If a component becomes a discontinued operation in a reporting period but has not been sold by the end of the period, the income effects of the discontinued operations are reported in two elements:
 - Operating income or loss (that is, revenue minus expenses) from operating the component, net of tax effects.
 - An impairment loss (net of tax effects) if the book value of the net assets in the disposal group is more than the net assets' fair value minus cost to sell.



Reporting as Net of Tax Effects

- "Net of tax" treatment is called intraperiod income tax allocation.
 - The income (loss) from operating the discontinued component is reported net of tax effects.
 - Any gain (loss) from disposal or impairment are reported net of tax effects.
- Intraperiod income tax allocation matches the income tax burden or benefit with the item giving rise to it.



Proportion of Firms Reporting Nonrecurring Items



Source: Standard and Poor's Compustat Annual Industrial File as data source; methodology not verified or controlled by *Standard & Poor's*.



Reporting Accounting Changes

- Consistency:
 - Means using the same accounting methods to describe similar economic events from period to period.
 - Enhances decision usefulness by allowing users to identify trends or turning points in a company's performance over time.
- Changing accounting methods:
 - Firms sometimes *voluntarily* switch accounting methods or revise estimates because the alternative method or estimate better reflects the firm's underlying economics.
 - Accounting standards-setting bodies frequently issue new standards requiring companies to change accounting methods (mandatory).
- When firms change accounting methods, it raises questions about **transition methods**.



Types of Accounting Changes

EXHIBIT 2.6 Types of Ac

Types of Accounting Changes

Type of Change	Description	Examples
Change in accounting principle	Change from one generally accepted accounting principle to another. This change can be voluntary (initiated by the firm) or mandatory (required by a standards-setting body such as the FASB).	 Voluntary Change in methods of inventory costing Mandatory Adoption of a new FASB standard
Change in accounting estimate	Revision of an estimate because of new information or new experience.	 Change in estimated percentage of uncollectible accounts (bad debts) Change in depreciation method (e.g., straight line to accelerated method)* Change in estimated service life or salvage value of depreciable assets
Change in accounting entity	Change in the economic units that comprise the reporting entity.	 Reporting consolidated financial statements in place of financial state- ments for individual entities Adding a subsidiary not previously included in prior years' consolidated financial statements

Under U.S. GAAP, a change in depreciation methods is treated as a change in estimate that is achieved by a change in accounting principle.



Change in Accounting Principle

- U.S. GAAP requires firms to use the **retrospective approach** (unless it is impracticable to do so or a new standard specifies some other transition method).
 - Prior years' financial statements are revised to reflect the impact of the accounting principle change (as if the new principle had been used since the company's inception).
 - A journal entry is made to adjust all account balance sheet accounts as of the beginning of the current year to what their balances would have been had the new method always been used.
 - The entry typically requires an adjustment to the firm's beginning Retained earnings balance to reflect the **cumulative effect** of the accounting principle change on all prior periods' reported income.
- In some cases, it is impracticable to apply a change in accounting principle retrospectively.



Change in Accounting Estimate

- Estimates are used extensively in accounting:
 - Uncollectible receivables
 - Inventory obsolescence
 - Service lives and salvage values of depreciable assets
 - Warranty obligations
- Changes in accounting estimates come about because new information indicates the previous estimate is no longer valid.
- When accounting estimates are changed, prior year income is never adjusted.
 - Prospective approach Instead, the income effects of the changed estimate are accounted for in the period of the change and in future periods if the change affects both.



Change in Estimate Effected by Change in Principle

- In some cases, a change in accounting estimate results from a change in accounting principle.
- Changes in accounting estimates that result from a change in accounting principle are accounted for as a change in estimate.



Change in Reporting Entity

- A change in reporting entity occurs when the entities comprised by the financial statements changes:
 - Consolidated or combined statements are replacing statements of individual entities
 - There is a change in the subsidiaries to be consolidated or combined
 - A business combination accounted for under the acquisition method is specifically excluded from the definition of a change in reporting entity.
- Requirements:
 - When a change in reporting entity occurs, comparative financial statements for prior years must be restated to reflect the new reporting entity as if it had been in existence during all the years presented.
 - The effect of the change on income, net income, other comprehensive income, and any related per share amounts are disclosed for all periods presented.



Earnings Management

- Applying the criteria for revenue and expense recognition still leaves room for considerable latitude and judgment.
 - Managers can sometimes exploit the flexibility in GAAP to manipulate reported earnings in ways that mask the company's underlying performance.
 - Some managers have even resorted to outright financial fraud (but this is relatively rare).
- Earnings management has become increasingly common because of pressure to meet analysts' earnings forecasts.
- The representational faithfulness and predictive usefulness of the resultant accounting numbers may then be compromised.



Popular Earnings Management Devices: "Big Bath" Restructuring Charges

- "Big bath" restructuring charges are taken in an effort to "clean up" company balance sheets, managers have often taken excessive restructuring write-offs and overstated estimated charges for future expenditures.
 - The restructuring charges and liability reserves are sometimes reversed in future years to boost net income in those years.
 - The FASB now requires that a liability must actually have been incurred before recording a liability and taking an associated restructuring charge.
 - Because of the subjectivity of restructuring charges and the ability to take charges by writing down assets, overstatement of restructuring charges cannot be completely eliminated.



Popular Earnings Management Devices: "Cookie Jar Reserves"

- Miscellaneous "cookie jar reserves" are recorded for bad debts, loan losses, warranty costs, and reserves for various future expenditures related to corporate restructuring.
 - Some companies use unrealistic assumptions to arrive at these estimated charges.
 - The overreserve in good times and cut back on estimated charges, or reverse previous charges, in bad times.
 - A convenient income smoothing device.
 - One critique of IFRS is that it might offer more opportunities for "cookie jar reserves" accrual accounting than U.S. GAAP.



Popular Earnings Management Devices: Intentional Errors and Misstated Estimates

- Companies make intentional errors deemed to be "immaterial" and intentional bias in estimates
 - Materiality thresholds are another way of using financial reporting flexibility to inflate earnings.
 - A series of "immaterial" errors spread across several accounts can, in the aggregate, have a material effect on earnings.
- Management can often intentionally misstate estimates.
 - Estimates abound in accrual accounting.
 - Management can often shade these estimates in one direction or the other to achieve a desired earnings target.

FINANCIAL REPORTING ANALYSIS Market Analysis Ana

Popular Earnings Management Devices: Revenue Recognition Abuses

- Under existing GAAP, revenue may be recognized when it has been earned and is realized or realizable.
- The SEC says revenue is earned (critical event) and realized (measurability) when all of the following are met:
 - Pervasive evidence of an exchange agreement exists.
 - Delivery has occurred or services have been rendered.
 - The seller's price to the buyer is fixed or determinable.
 - Collectibility is reasonably assured.
- SEC Staff Accounting Bulletin (SAB) No. 104 illustrates troublesome areas of revenue recognition.



Revenue Recognition Abuses: SAB No. 104 Examples

Goods shipped on consignment No revenue can be recognized at delivery.

Sales with delayed delivery

Seller can't recognize revenue until delivery... except certain buy and hold transactions.

Goods sold on lay-away Postpone revenue recognition until merchandise is delivered to customer.



Revenue Recognition Abuses: SAB No. 104 Examples, concluded

Non refundable up-front fees

Earned as services are delivered over the full term of service engagement.

Gross vs. net basis for internet resellers

Revenue should be recognized on a "net" basis as commission revenue.

Capacity swaps Revenue should be recognized over time as the capacity is brought on line and used by customers.



Accounting Errors and Irregularities

- Accounting errors and "irregularities" can occur for several reasons:
 - Simple oversight
 - Misapplication of GAAP (especially where judgment is required)
 - Intentional attempts to exploit the flexibility in GAAP
 - Outright financial fraud
- Several parties are charged with discovering accounting errors and irregularities:
 - The company's internal audit staff and audit committee
 - External auditors
 - SEC staff surveillance of filings



Prior Period Adjustments

- Once discovered, accounting errors and irregularities must be corrected and disclosed.
- Material errors discovered after the year in which the error is made are corrected through a prior period adjustment.
 - This adjustment results in a change to the beginning Retained earnings balance (for the year the error is detected) and correction of related asset or liability balances.
 - Previous years' financial statements that are presented for comparative purposes are retroactively restated to reflect the specific accounts that are corrected.
 - The impact of the error on current and prior period reported net income is disclosed in the notes to the financial statements.



Bas Coi Dis

Dil Co Dis

Basic

Diluted

Net income (loss) per share:

Average shares outstanding:

Earnings Per Share

Exhibit 2.10 Intricon Corporation Consolidated Statement of Operations (partial) (in Thousands, Except Per Share Amounts							
	2014	2013	2012				
asic income (loss) per share:							
ontinuing operations	\$0.43	\$(0.40)	\$0.31				
scontinued operations	<u>(0.05)</u>	(0.68)	<u>(0.19)</u>				
Net income (loss) per share:	<u>\$0.39</u>	<u>\$(1.08)</u>	<u>\$0.13</u>				
luted income (loss) per share:							
ontinuing operations	\$0.42	\$(0.40)	\$0.30				
scontinued operations	<u>(0.04)</u>	(0.68)	<u>(0.18)</u>				

\$0.37

5.791

6,038

\$(1.08)

5.699

5,699

\$0.12

5.699

5,888

- Basic EPS uses the weightedaverage number of common shares outstanding for the period.
- Diluted EPS reflects what basic EPS would have been if all potentially dilutive (i.e., EPS reducing) securities were converted into common shares

Income available to common shareholders Weighted-average common shares outstanding



Comprehensive Income and Other Comprehensive Income

- **Comprehensive income** is the change in equity that occurs from transactions or events from non-owner sources.
- Most of the items included in comprehensive income result from completed or closed transactions with outside parties.
 - Closed transactions are those whose ultimate payoffs result from events that have already occurred and whose dollar flows can be predicted fairly accurately.
- All items of comprehensive income are categorized as net income or **other comprehensive income (OCI)**.
 - An item of comprehensive income is considered part of net income unless GAAP specifically designates it as part of OCI.
 - When it is part of OCI, no gain or loss is reported in net income; instead, the gain or loss is included in OCI for the year.



Comprehensive Income and Other Comprehensive Income, continued

- A feature of U.S. GAAP is that OCI amounts are "recycled" when the incomplete transaction that gave rise to OCI becomes complete.
 - The recognition and subsequent recycling of OCI allows net income and comprehensive income to differ year by year.
- Under current GAAP, OCI arises from:
 - Certain foreign currency gains and losses
 - Gains and losses on marketable securities classified as available-forsale
 - Certain other-than-temporary impairments
 - Certain gains and losses related to retirement plans
 - Gains and losses on certain hedging contracts



Comprehensive Income and Other Comprehensive Income, concluded

- U.S. GAAP requires firms to report comprehensive income in a statement that is displayed with equal prominence to other financial statements.
- Firms are permitted to display the components of other comprehensive income in a:
 - Single-statement format
 - Net income and other comprehensive income are both presented and their sum, comprehensive income, is the bottom line.
 - Two-statement format.
 - A traditional income statement is followed immediately on the next page of the report by a statement of comprehensive income that begins with net income and shows the individual other comprehensive income components, followed by comprehensive income.



Global Vantage Point

- U.S. GAAP and IFRS for OCI differ in many respects.
 - IFRS allows more opportunities for managers to change the balance sheet valuation of certain assets even when managers have no intention to sell or dispose of these assets.
 - IFRS allows managers to revalue property, plant, and equipment to an appraised fair value periodically.
 - With regards to defined benefit pension plans, both U.S. GAAP and IFRS require companies to report actuarial valuation changes in OCI each period; however, IFRS does not require firms periodically to recategorize ("recycle") a portion of these OCI changes into periodic net income.
 - Under IFRS, entities are required to group items within OCI based on whether they will be reclassified subsequently into net income ("recycled").



Review of Accounting Procedures and T-Account Analysis

- Appendix 2A:
 - Uses the basic accounting equation to show how various transactions affect its components.
 - Depicts the basic accounting equation in T-account form and show how debits and credits operate to reflect increases or decreases to various accounts.
 - Reviews adjusting entries relating to prepayments, deferred revenues, accrued expenses, and accrued revenues.
 - Describes the posting of journal entries to accounts and the preparation of financial statements.
 - Reviews the closing process.
 - Explains the use of T-account analysis as an analytical technique.



- Key differences between cash and accrual income measurement:
 - In most instances, accrual-basis revenues do not equal cash receipts and accrual expenses do not equal cash disbursements.
 - The principles that govern revenue and expense recognition under accrual accounting are designed to alleviate the mismatching of effort and accomplishment that occurs under cash-basis accounting.
 - The matching principle determines how and when the assets that are used up in generating the revenue or that expire with the passage of time are expensed.
 - Relative to current operating cash flows, accrual earnings generally provide a more useful measure of firm performance and serve as a more useful benchmark for predicting future cash flows.



Summary, continued

- GAAP disclosure requirements for various types of accounting changes facilitate the analysis of company performance over time.
- Auditors and financial statement users must be aware of the incentives to manage earnings and the ways in which this is accomplished.
- Once discovered, accounting errors or irregularities must be corrected and disclosed through restatement.
- Public companies must report EPS numbers on the face of their income statements. All firms report basic EPS, while firms with complex capital structures also disclose diluted EPS.



Summary, concluded

- Certain changes in net assets resulting from incomplete or open transactions bypass the income statement and are reported as direct adjustments to stockholders' equity.
 - These direct adjustments are called *other comprehensive income components.*
 - Under U.S. GAAP, firms are required to report the components of other comprehensive income in either a singlestatement format or a two-statement format.

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