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A Discussion of Thirteen Financial Accounting Topics

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A DISCUSSION OF THIRTEEN FINANCIAL ACCOUNTING TOPICS

by
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ABSTRACT
JORDAN BARR: A Discussion of Thirteen Financial Accounting Topics
(Under the direction of Dr. Victoria Dickinson)

The purpose of this paper is to investigate thirteen different financial reporting topics and principles using specific scenarios that have been presented in a case study. These topics include the effects of different U.S. GAAP reporting options, the calculation of return on net operating assets, the statement of cash flows, the treatment of accounts receivable, U.S. GAAP policies, the effects of depreciation expense, contingencies, long-term debt, common stock, the treatment of investments, revenue recognition, the effects of deferred income taxes, and retirement obligations. Each case study introduces a company (or multiple companies) that exemplifies the topic for analysis. Then, several questions guide the analysis of the issue. Analysis of the issue in each case study leads to a better understanding of the U.S. generally accepted accounting principles surrounding the issue and often sheds light on the effects the issue has on the financial statements or company's performance overall. These case studies help to develop an understanding of the accounting issues that goes beyond a simple understanding of the journal entries.

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CASE 1: FINANCIAL REPORTING AND INVESTMENT DECISIONS

Glenwood Heating, Inc. and Eads Heaters, Inc.

September 9, 2015

This case looks at several different U.S. GAAP reporting choices and how these choices could affect the presentation of a company's financial statements. It shows how different accounting methods can reveal the financial goals and financial organization of a company and potentially affect the way investors view the company. The case study evaluates this topic by considering two home heating companies.

In 20X1, during their first year of operations, two similar companies in the home heating industry—Glenwood Heating, Inc. and Eads Heaters, Inc.—recorded the same transactions. However, their financial positions now differ because of their treatment of certain accounting items using GAAP principles. These two companies have different ways of dealing with their allowance for doubtful accounts, cost of goods sold, depreciation of buildings and equipment, leased equipment, and provisions for income tax. All financial statements for both Glenwood Heating, Inc. and Eads Heaters, Inc. can be found in APPENDIX 1: Financial Statements for Glenwood Heating, Inc. and Eads Heaters, Inc. at the end of this analysis.

Because of these different approaches, Eads Heaters, Inc. has a financial position that is less dependent on inventory and more efficient at managing assets while Glenwood Heating, Inc. has a financial position that is more appealing to investors because of its higher productivity. Eads Heaters, Inc. seems to be organized for long-term stability while Glenwood Heating, Inc. seems to be organized for more short-term profitability.

Eads Heaters, Inc. is less dependent than Glenwood Heating, Inc. on the sale of inventory to meet short-term debt. Eads is also more efficient in its operations than is Glenwood. All ratios and their calculations can be found in APPENDIX 2: Financial Ratios Calculations for Glenwood Heating, Inc. and Eads Heaters, Inc. Additionally, Eads'

superior efficiency is illustrated by many of its asset management ratios. Eads has higher accounts receivable turnover and inventory turnover ratios. These ratios reduce the days to collect receivables and the days to sell inventory, respectively, leading to an overall shorter operating cycle, which is desirable. Having a shorter operating cycle means Eads is more efficiently handling its inventory and receivables and keeping storage costs low.

On the other hand, Glenwood Heating, Inc. has a financial position that is more appealing to outside investors because it has higher profitability. All of Glenwood's profitability and debt ratios are preferable to Eads' ratios. Glenwood is making more profit on each of its sales dollars as indicated by its higher profit margin. It is experiencing higher returns on both its assets and its owners' equity. The company would also be considered less risky by investors because it has a lower debt ratio than Eads, meaning that Glenwood has less debt compared to its assets and therefore less risk of going bankrupt. Importantly, Glenwood's earnings per share is over six dollars higher than Eads' earnings per share; this would attract outside investors because Glenwood's stock is worth more than Eads' stock. Finally, Glenwood has earned its interest requirements more times over than Eads has. Therefore, it is more easily able to make its interest payments. In all apparent areas, Glenwood is more profitable than Eads.

Ultimately, each company has a certain area in which it succeeds and one in which it can improve. While Eads better handles its assets and has a structure that is better suited for long-term stability, the company could focus on improving its profitability for stockholders. On the other hand, Glenwood is currently more profitable, but it could strive to more efficiently manage its assets. As of December 31, 20X1, Glenwood most likely would be able to attract more investors looking for quick profitability than Eads would be

because from an outside perspective Glenwood appears more profitable currently. However, for an investor looking for long-term stability, Eads would be a better choice since it has a structure that is more future-oriented.

APPENDIX 1: Financial Statements for Glenwood Heating, Inc. and Eads Heaters, Inc.

Glenwood Heating, Inc.
Income Statement
For Year Ended December 31, 20X1

Sales		$ 398,500
Cost of Goods Sold		177,000
Gross Profit		221,500
Selling and Administrative Expenses		
Bad Debt Expense	994	
Depreciation Expense	19,000	
Other Operating Expenses	34,200	
Rent Expense	16,000	
Total Selling and Administrative Expenses		70,194
Income from Operations		151,306
Other Expenses		
Interest Expense		27,650
Income before Taxes		123,656
Provision for Income Taxes		30,914
Net Income		$ 92,742

Glenwood Heating, Inc.
Statement of Retained Earnings
For Year Ended December 31, 20X1

Beginning Retained Earnings	-
Plus: Net Income	92,742
Less: Dividends	(23,200)
Ending Retained Earnings	$ 69,542

Glenwood Heating, Inc.
Classified Balance Sheet
December 31, 20X1

Assets			
Current Assets			
Cash		$ 426	
Accounts Receivable	99,400		
Less: Allowance for Doubtful Accounts	994	98,406	
Inventory		62,800	
Total Current Assets			$ 161,632
Long-term Assets			
Land		70,000	
Building	350,000		
Less: Accumulated Depreciation	10,000	340,000	
Equipment	80,000		
Less: Accumulated Depreciation	9,000	71,000	
Total Long-term Assets			481,000
Total Assets			$ 642,632
Liabilities & Owners' Equity			
Current Liabilities			
Accounts Payable		26,440	
Interest Payable		6,650	
Total Current Liabilities		$ 33,090	
Long-term Debt			
Notes Payable		380,000	
Total Liabilities			413,090
Stockholders' Equity			
Common Stock		160,000	
Retained Earnings	92,742		
Less: Dividends Paid	23,200	69,542	
Total Equity			229,542
Total Liabilities and Equity			$ 642,632

Glenwood Heating, Inc. Statement of Cash Flows For Year Ended December 31, 20X1	
Cash from Operating	
Net Income	$ 92,742
Increase in Accounts Receivable	(99,400)
Increase in Accounts Payable	26,440
Increase in Interest Payable	6,650
Depreciation Expense	19,000
Bad Debt Expense	994
Increase in Inventory	(62,800)
Net Cash from Operating	(16,374)
Cash from Investing	
Land	(70,000)
Building	(350,000)
Equipment	(80,000)
Net Cash from Investing	(500,000)
Cash from Financing	
Common Stock	160,000
Dividends	(23,200)
Increase in Notes Payable	380,000
Net Cash from Financing	516,800
Net Cash Provided	$ 426

Eads Heaters, Inc.
Income Statement
For Year Ended December 31, 20X1

Sales		$ 398,500
Cost of Goods Sold		188,800
Gross Profit		209,700
Selling and Administrative Expenses		
Bad Debt Expense	4,970	
Depreciation Expense	41,500	
Other Operating Expenses	34,200	
Total Selling and Administrative Expenses		80,670
Income from Operations		129,030
Other Expenses		
Interest Expense		35,010
Income before Taxes		94,020
Provision for Income Taxes		23,505
Net Income		$ 70,515

Eads Heaters, Inc.
Statement of Retained Earnings
For Year Ended December 31, 20X1

Beginning Retained Earnings	-
Plus: Net Income	70,515
Less: Dividends	(23,200)
Ending Retained Earnings	$ 47,315

Eads Heaters, Inc.
Classified Balance Sheet
December 31, 20X1

Assets			
Current Assets			
Cash		$ 7,835	
Accounts Receivable	99,400		
Less: Allowance for Doubtful Accounts	4,970	94,430	
Inventory		51,000	
Total Current Assets			$ 153,265
Long-term Assets			
Land		70,000	
Building	350,000		
Less: Accumulated Depreciation	10,000	340,000	
Equipment	80,000		
Less: Accumulated Depreciation	20,000	60,000	
Leased Equipment	92,000		
Less: Accumulated Depreciation	11,500	80,500	
Total Long-term Assets			550,500
Total Assets			$ 703,765
Liabilities & Owners' Equity			
Current Liabilities			
Accounts Payable		26,440	
Interest Payable		6,650	
Total Current Liabilities		$ 33,090	
Long-term Debt			
Notes Payable		380,000	
Lease Payable		83,360	
Total Long-term Liabilities		463,360	
Total Liabilities			496,450
Stockholders' Equity			
Common Stock		160,000	
Retained Earnings	70,515		
Less: Dividends Paid	23,200	47,315	
Total Equity			207,315
Total Liabilities and Stockholder Equity			$ 703,765

Eads Heaters, Inc.

Statement of Cash Flows

For Year Ended December 31, 20X1

Cash from Operating		
Net Income	$	70,515
Increase in Accounts Receivable		(99,400)
Increase in Accounts Payable		26,440
Increase in Interest Payable		6,650
Increase in Inventory		(51,000)
Bad Debt Expense		4,970
Depreciation Expense		41,500
Net Cash from Operating		(325)
Cash from Investing		
Land		(70,000)
Building		(350,000)
Equipment		(80,000)
Leased Equipment		(92,000)
Net Cash from Investing		(592,000)
Cash from Financing		
Common Stock		160,000
Dividends		(23,200)
Increase in Notes Payable		380,000
Increase in Lease Payable		83,360
Net Cash from Financing		600,160
Net Cash Provided	$	7,835

APPENDIX 2: Financial Ratio Calculations for Glenwood Heating, Inc. and Eads Heaters, Inc.

Glenwood Heating, Inc.

ASSET MANAGEMENT AND LIQUIDITY:

Current Ratio	$= \frac{426+98406+62800}{26440+6650+20000}$	= 3.04
Acid Test	$= \frac{426+98406}{26440+6650+20000}$	= 1.86
Accounts Receivable Turnover	$= \frac{398500}{98406}$	= 4.05
Days to Collect Receivables	$= \frac{365}{4.05}$	= 90.1 days
Inventory Turnover	$= \frac{177000}{62800}$	= 2.82
Days to Sell Inventory	$= \frac{365}{2.82}$	= 129.4 days
Operating Cycle	$= 129.4 + 90.1$	= 219.5 days

PROFITABILITY AND DEBT:

Gross Profit Margin	$= \frac{398500-177000}{398500}$	= 56%
Profit Margin	$= \frac{92742}{398500}$	= 23%
Return on Assets	$= \frac{92742}{642632}$	= 14%
Return on Equity	$= \frac{92742}{229542}$	= 40%
Earnings per share	$= \frac{92742}{3200}$	= $28.98
Debt Ratio	$= \frac{413090}{642632}$	= 64%
Times Interest Earned	$= \frac{151306}{27650}$	= 5.47

Eads Heaters, Inc.

ASSET MANAGEMENT AND LIQUIDITY:

Current Ratio	$= \frac{7835+51000+94430}{26440+6650+20000}$	= 2.46
Acid Test	$= \frac{7835+94430}{26440+6650+20000}$	= 1.64
Accounts Receivable Turnover	$= \frac{398500}{94430}$	= 4.22
Days to Collect Receivables	$= \frac{365}{4.22}$	= 86.5 days
Inventory Turnover	$= \frac{188800}{51000}$	= 3.7
Days to Sell Inventory	$= \frac{365}{3.7}$	= 98.6 days
Operating Cycle	$= 98.6 + 86.5$	= 185.1 days

PROFITABILITY AND DEBT:

Gross Profit Margin	$= \frac{398500-188800}{398500}$	= 53%
Profit Margin	$= \frac{70515}{398500}$	= 18%
Return on Assets	$= \frac{70515}{703765}$	= 10%
Return on Equity	$= \frac{70515}{207315}$	= 34%
Earnings per Share	$= \frac{70515}{3200}$	= $22.04
Debt Ratio	$= \frac{496450}{703765}$	= 71%
Times Interest Earned	$= \frac{129030}{35010}$	= 3.69

CASE 2: RETURN ON NET OPERATING ASSETS

Molson Coors Brewing Company

September 28, 2015

Measuring the profitability of a company requires knowing how to interpret the financial statements and knowing which items to analyze and which to ignore. Items that cannot be easily predicted are not particularly helpful for predicting the long-term profitability of a company and the potential increase in stock value. Unusual or special items that occur rarely or singularly are also not very helpful. However, a measurement of persistent cash flows—cash flows that can reasonably be expected to occur each year at consistent amounts—is more useful. Looking at items that arise from a business's core operations instead of its non-operating activities is also a useful strategy for gauging profitability. A company's core operations should be more reliable for predicting future income than its other non-operating activities should be. To measure whether returns are resulting from core operations, companies can calculate the return on net operating assets (RNOA), that is, the return only on assets used in core operations.

The first step to thinking about persistent cash flows for Molson Coors Brewing Company is to classify income statement items as reoccurring or non-reoccurring and operating or non-operating. Items that reoccur will be considered in a persistent cash flow. Whether an item is operating or non-operating will factor into a later calculation of RNOA. Figure 2-A shows the classifications of the income statement accounts into these categories.

Items that are classified as non-reoccurring include special items, other income (expense), and items from discontinued operations. These items are regarded as non-persistent because, though they may happen again, the time and amount at which they might reoccur cannot be reasonably predicted. Therefore, these items will not be included in the calculations of persistent cash flows.

Figure 2-A

Molson Coors Brewing Company Classification of Income Statement Items		
	Reoccurring	**Non-reoccurring**
Operating	Sales Cost of Goods Sold Excise tax Marketing, general and administrative Equity income	Special items, net
Non-operating	Income tax benefit (expense) Interest expense Interest income Noncontrolling interest	Other income (expense) Income from discontinued operations

Once the income statement items have been classified, an income statement of estimated persistent income can be developed. Calculating the estimated persistent income ignores all the non-recurring items because these items cannot be predicted or estimated. However, making this income statement requires an estimated persistent tax rate. The estimated persistent tax rate is a rate that can be reasonably assumed with a margin of safety by considering past tax rates and trends.

The estimated persistent tax rate used for Molson Coors Brewing Company was derived by using the Statutory Federal income tax rate for a corporation, which is 35%, then estimating the state income tax rate, net of federal benefits and the effect of foreign tax rates. The state income tax rate is estimated to be the same as 2013 since it has been decreasing very slightly over the past three years, and the effect of foreign tax rates is estimated as the average rate of the past three years. Other forms of taxation that Molson Coors has faced have been at inconstant amounts so that they cannot be reasonably or easily estimated. Because these other forms of taxation have been excluded, the estimated

persistent tax rate should be used and analyzed with a margin of safety. Figure 2-B shows the calculation of the estimated persistent tax rate.

Figure 2-B

Molson Coors Brewing Company Estimated Persistent Tax Rate 2014	
Statutory Federal income tax rate	35.0%
State income taxes, net of federal benefits	1.3%
Effect of foreign tax law and rate changes	(24.4) %
Estimated persistent tax rate	11.9%

Once the persistent tax rate is estimated, the income statement of estimated persistent income for Molson Coors Brewing Company can be constructed as seen in Figure 2-C.

Figure 2-C

Molson Coors Brewing Company Estimated Persistent Income Statement (in millions) For Year 2014		
Sales		$ 5,999.6
Excise taxes		(1,793.5)
Net sales		4,206.1
Cost of Goods Sold		2,545.6
Gross Profit		1,660.5
Marketing, general and administrative expenses		(1,193.8)
Equity income in Miller Coors		539.0
Operating income (loss)		1,005.7
Other income (expense), net		
Interest expense	(183.8)	
Interest income	13.7	(170.1)
Income from operations before income taxes		835.6
Income tax benefit (expense)		(119.7)
Estimated persistent income including noncontrolling interests		715.9
Less: Net income attributable to noncontrolling interests		(5.2)
Estimated persistent income attributable to Molson Coors		$ 710.7

RNOA is normally used to calculate the return on net operating assets for the past year. Therefore, it gives a confirmatory value of past events. However, if the RNOA calculation is used with estimated persistent items, it can give a picture of potential future RNOA, which can help investors determine whether a company is going to be profitable in the long-run without being misled by non-persistent items.

Once the estimated persistent income for Molson Coors Brewing Company has been calculated, the RNOA for this amount can be calculated and compared to the historic RNOA values of 2012 and 2013 to get a picture of Molson Coors' potential long-run standing. To begin this calculation, the net operating profit after tax (NOPAT) is needed. NOPAT considers only operating profit after tax, so the effect of non-operating items after tax must be undone. Figure 2-D shows the calculations for determining the non-operating items after tax.

Figure 2-D

Molson Coors Brewing Company After-Tax Non-Operating Items (in millions)			
	2012	2013	Persistent
Interest expense	(196.3)	(183.8)	(183.8)
Interest income	11.3	13.7	13.7
Other income (expense), net	(90.3)	18.9	-
Non-operating items	(275.3)	(151.2)	(170.1)
Marginal tax (12%)	(33.0)	(18.1)	(20.4)
Non-operating items after tax	242.3	(133.1)	(149.7)
Discontinued operations	1.5	2.0	-
Noncontrolling interest	3.9	(5.2)	(5.2)
Total non-operating items after tax	$(236.9)	$(136.3)	$(154.9)

Once the non-operating items net of tax have been found, these amounts can be added back into net income to arrive at NOPAT, as shown in Figure 2-E.

Figure 2-E

Molson Coors Brewing Company Net Operating Profit After Tax (in millions)			
	2012	2013	Persistent
Net Income	443.0	567.3	710.7
Net non-operating items after tax	236.9	136.3	154.9
NOPAT	$679.9	$703.6	$865.6

The calculation of RNOA can be broken down into two factors: the operating profit margin and the net operating asset turnover. The operating profit margin is calculated as NOPAT divided by sales, and the net operating asset turnover is calculated as sales divided by average net operating assets. (Ending net operating assets will be used to simplify the calculations.) So, for 2012 and 2013, historic sales values, calculated NOPAT, and historic balance sheets can be used to calculate the two factors. To use RNOA as a predictive tool, the information from the estimated persistent income statement and persistent NOPAT can be used to calculate a predicted operating profit margin. For persistent RNOA the net operating asset turnover will be the same as 2013 because sales, assets, and liabilities are not predicted to change because making forecasts about how these items would change would require much more information. After sales values and NOPAT have been calculated, the operating profit margin can be calculated. What remains is the net operating asset turnover. The average net operating assets are needed to calculate this. Average net operating assets can be found by subtracting operating liabilities from operating assets. To do so, the operating assets and liabilities must be isolated from the non-operating assets and liabilities. Figure 2-F shows which balance sheet items are considered non-operating.

Figure 2-F

Molson Coors Brewing Company Non-operating Balance Sheet Items	
Assets	• Current notes receivable and other receivables, less allowance for doubtful accounts • Long-term notes receivable, less allowance for doubtful accounts
Liabilities	• Current derivative hedging instruments • Current portions of long-term debt and short-term borrowing • Current discontinued operations • Long-term debt • Long-term derivative hedging instruments • Long-term discontinued operations

The notes to Molson Coors' financial statements state that its current receivable and long-term notes receivable arise from loans it made to customers. These loans are non-operating because Molson Coors' core operations include brewing and selling beer, not making loans. Derivative hedging instruments are non-operating because they are used to hedge investment risk. Long-term debt and its current portion are non-operating because long-term debt tends to deal with financing transactions instead of operating transactions. Finally, discontinued operations are non-operating because they are the discontinuation of a portion of the company.

Once the non-operating items have been identified they can be deducted from the total items to show the operating assets and the operating liabilities. This process is shown for operating assets in Figure 2-G and for operating liabilities in Figure 2-H. Then the operating liabilities can be subtracted from the operating assets to yield the net operating assets. This can be seen in Figure 2-I.

Figure 2-G

Molson Coors Brewing Company Operating Assets (in millions)		
	2012	2013
Total assets	16,212.2	15,580.1
Less: non-operating assets		
Current non-operating assets		
Current notes receivable	92.9	124.4
Notes receivable	26.3	23.6
Total non-operating assets	119.2	148.0
Total operating assets	$16,093.0	$15,432.1

Figure 2-H

Molson Coors Brewing Company Operating Liabilities (in millions)		
	2012	2013
Total Liabilities	8,220.6	6,916.3
Less: non-operating liabilities		
Current non-operating liabilities		
Derivative hedging instruments	6.0	73.9
Short-term borrowings and current debt	1,245.6	586.9
Discontinued operations	7.9	6.8
Long-term debt	3,422.5	3,213.0
Derivative hedging instruments	222.2	3.0
Discontinued operations	20.0	17.3
Total non-operating liabilities	4,924.2	3,900.9
Total operating liabilities	$3,296.4	$3,015.4

Figure 2-I

Molson Coors Brewing Company Net Operating Assets (in millions)		
	2012	2013
Total operating assets	16,093.0	15,432.1
Less: total operating liabilities	3,296.4	3,015.4
Net operating assets	$12,796.6	$12,416.7

Figure 2-J

Molson Coors Brewing Company Return on Net Operating Assets			
	2012	2013	Persistent
Operating profit margin	12.1%	11.7%	14.4%
Net operating asset turnover	0.44	0.48	0.48
RNOA	5.3%	5.7%	6.9%

Once the net operating assets have been calculated, the net operating asset turnover can be calculated. This yields both factors needed to calculate RNOA for 2012, 2013, and a persistent prediction. Figure 2-J shows both factors of RNOA and calculated RNOA for both 2012 and 2013 and for the predicted persistent amount. As stated before, the net operating asset turnover for the predicted persistent RNOA is equal to the net operating asset turnover for 2013 because predicting changes in net operating assets and sales would require much more information.

An analysis of these numbers reveals that RNOA is higher for 2013 than it is for 2012, perhaps because Molson Coors restructured its operations in 2013 leading to a higher operating asset turnover. This increase in RNOA could also be because Molson Coors had discontinued operations in 2013. Perhaps the discontinuation led to a more efficient use of assets, causing net operating asset turnover to be higher in 2013. Analysis also reveals that the predicted persistent RNOA is higher than RNOA in both 2012 and 2013.

To gauge future profitability and stock prices, investors want to know about cash flows that are persistent and dependable. Therefore, it is advantageous for them to consider the estimated persistent income statement as it includes only items that are predicted to continue each period. Investors and stockholders also want to know that income and profitability are primarily arising from a company's core operations and not from

peripheral events. Thus, it is also advantageous for them to consider the predicted persistent return on net operating assets. When evaluated using these standards, Molson Coors Brewing Company appears to be a profitable investment. Its estimated persistent income is higher than its income in 2012 and 2013; therefore, it should be able to meet its obligations while continuing to profit. Additionally, the predicted persistent RNOA is higher than the RNOA for 2012 and 2013, signifying that Molson Coors should continue to be receiving most of its income from core operations. From this analysis, Molson Coors Brewing Company appears to have a potentially rising stock valuation. It would be a profitable choice for investors and stockholders. For answers to introductory questions pertaining to this case, see the appendix.

APPENDIX: Introductory Questions for Case Study 2

a) **What are the major classifications on an income statement?**

The major classifications are Operating Income and Expenses and Non-Operating Income and Expenses. Operating Income and Expenses include sales revenue, cost of goods sold, selling expenses, administrative and general expenses, and income from operations. Non-Operating Income and Expenses include additional revenues and expenses, interest expense, investments, income tax expense, and additional gains and losses.

b) **Explain why, under U.S. GAAP, companies are required to provide "classified" income statements.**

Income statements are classified for transparency so that investors will have an easier time understanding the sources of income. This allows potential investors to determine whether income is coming from dependable, continuing sources.

c) **In general, why might financial statement users be interested in a measure of persistent income?**

Persistent income is more dependable in the long-run. Income that is not persistent might have occurred from a random event that will not occur the next year. This could lead to a false sense of profitability.

d) **Define comprehensive income and discuss how it differs from net income.**

Comprehensive income includes items that must be excluded from the income statement because they have yet to be realized. Comprehensive income includes things like gains or losses on available-for-sale securities. Net income includes things that have already been done and realized.

e) The income statement reports "Sales" and "Net sales." What is the difference? Why does Molson Coors report these two items separately?

Net sales are a company's sales after the deductions of returns, allowances, discounts, and excise taxes. Both are recorded so that potential investors and managers can see any important information that affects sales' monetary values. Molson Coors records the two items separately so that it can show the effect of an excise tax. The government taxes the shipment of beer with an excise tax, and Molson Coors wants to distinguish this tax from its sales tax.

f) Consider the income statement item "Special items, net" and information in Notes 1 and 8.

1. **In general, what types of items does Molson Coors include in this line item?**

   It includes employee-related charges like restructuring, impairments and asset abandonment charges, unusual items such as flood losses, and termination fees.

2. **Explain why the company reports these on a separate line item rather than including them with another expense item. Molson Coors classifies these special items as operating expenses. Do you concur with this classification? Explain.**

   The company includes these items in a separate line because they do not represent the normal operating activities of the company. They are events that perhaps do not happen often. Molson Coors classifies these items as operating expenses which I feel is effective because, although these items

are not the intended effects of operating activities, they arise through situations that occur as part of normal operating activities. These special items relate to the sales and productions of the company so it seems correct to classify these special items as operating expenses.

g) Consider the income statement option "Other income (expense), net" and information in Note 6. What is the difference between "Other income (expense), net" which is classified a non-operating expense and "Special Items, net" which Molson Coors classifies an operating expense?

Other income (expense) and special items differ because other income (expense) arises from things that are a bit more commonplace even if they do not happen regularly, while special expenses are the product of more unusual events. Additionally, special items usually arise from operating activities while other income (expense) arises from non-operating activities.

h) Refer to the comprehensive income statement.

1. **What is the amount of comprehensive income in 2013? How does this amount compare to net income in 2013?**

   Comprehensive income for 2013 is $760.2 million. This is higher than the net income for 2013.

2. **What accounts for the difference between net income and comprehensive income in 2013? In your own words, how are the items included in Molson Coors' comprehensive income related?**

   The difference arises from foreign currency translation adjustments, unrealized gain (loss) on derivative instruments, reclassification of

derivative (gain) loss to income, pension and other postretirement benefit adjustments, amortization of net prior service (benefit) cost and net actuarial (gain) loss to income, and ownership share of unconsolidated subsidiaries' other comprehensive income. These items are related because they are all amounts that cannot be recorded accurately yet because they have not been realized.

CASE 3: STATEMENT OF CASH FLOWS

Golden Enterprises, Inc.

October 7, 2015

One of the most important financial statements is the statement of cash flows. The statement of cash flows helps to reconcile accrual-based accounting to cash-based accounting by showing where physical cash (instead of receivables, payables, or other items) was used and received during a period. The statement of cash flows only considers transactions that involve cash. When coupled with the income statement, the statement of cash flows is very useful for determining a company's profitability. It can reveal whether a company is providing more cash or using more cash, whether physical cash is keeping pace with income, receivables, and payables, and where the cash is primarily being provided or used.

Companies can construct a statement of cash flows using two different methods: direct or indirect. The direct method simply follows transactions that involve cash to arrive at the net cash used or provided. This method is easy to implement. The more involved but more widely-used method is the indirect method. The indirect method reconciles the change in the cash balance from the last period to the current period with the accrual-based net income. It does so by analyzing and accounting for the changes in balance sheet accounts that are related to cash. Golden Enterprises, Inc. uses the indirect method.

When using the indirect method, the statement of cash flows is divided into three sections: operating, investing, and financing. These classifications help assess which activities are providing cash and which ones are using cash. An understanding of each section and what items to include in each section is necessary to creating the statement of cash flows for Golden Enterprises, Inc.

The operating section includes short-term assets and liabilities that are used in the core and daily operations of Golden Enterprises. It begins with net income and notes

changes in all applicable short-term assets and liabilities to arrive at the cash used or provided by operations. The operating section also factors out depreciation and amortization since those items do not represent the transfer of physical cash, and it factors out gains and losses since they already influence the investing section but are included in net income. The investing section deals with long-term assets or investments and any transactions that affect these assets. For example, the sale of property, plant, and equipment would affect long-term assets and would be included in the investing section, as would be a purchase of property, plant, or equipment. Lastly, the financing section deals with the debt and equity financing of Golden Enterprises, Inc. Therefore, this section deals with long-term liabilities, any short-term liabilities that are not included in the operating section, and equity. Any new financing, such as new notes payable or new common stock issued, would be included in this section. Additionally, any repayment of debt or repurchase of treasury stock would be included in this section as well.

Once an understanding of each section of the statement of cash flows is established, the 2013 statement of cash flows for Golden Enterprises, Inc. can be assembled following the 2012 model. Answers to introductory questions involving understanding the statement of cash flows can be found in the appendix. Figure 3-A shows the 2013 statement of cash flows for Golden Enterprises, Inc. compiled using the indirect method. Profitability can be assessed and analyzed once the statement of cash flows is presented and understood.

Figure 3-A

Golden Enterprises, Inc. Statement of Cash Flows For the Fiscal Year Ended May 31, 2013		
CASH FLOWS FROM OPERATING ACTIVITIES		
Net Income	$	1,134,037
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation		3,538,740
Deferred income taxes		(185,939)
Gain on sale of property and equipment		(61,040)
Change in receivables-net		106,367
Change in inventories		200,985
Change in prepaid expenses		200,137
Change in cash surrender value of insurance		62,906
Change in other assets		(191,298)
Change in accounts payable		(1,216,399)
Change in accrued expenses		954,938
Change in salary continuation plan		49,774
Change in accrued income taxes		113,369
Net cash provided by operating activities	$	4,607,029
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of property, plant, and equipment		(4,149,678)
Proceeds from sale of property, plant, and equipment		74,514
Net cash used by investing activities	$	(4,075,164)
CASH FLOWS FROM FINANCING ACTIVITIES		
Debt proceeds		38,361,199
Debt repayments		(38,287,529)
Change in checks outstanding, excess of bank balances		(267,501)
Purchases of treasury shares		(6,860)
Cash dividends paid		(1,467,879)
Net cash used by financing activities	$	(1,668,570)
NET DECREASE IN CASH AND CASH EQUIVALENTS		(1,136,705)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR		1,893,816
CASH AND CASH EQUIVALENTS AT END OF YEAR	$	757,111

Some important things to note about the construction of the statement of cash flows include the way things are classified into three sections: operating, investing, and financing. Operating cash flows include any use or receipt of cash that is not classified as an investing or financing cash flow. Depreciation is added back to cash in the operating section because it is an account used to track a decrease in value of an asset; it does not represent actual expenditures or receptions of cash. Likewise, deferred income tax is deducted from the operating section because it is a non-cash item. Additionally, a 2013 gain on a sale of equipment is added back to the operating cash flow because it has already been recorded in the investing section even though it is in net income. Most changes in short-term assets and liabilities are noted in the operating section. The investing section of the Golden Enterprises, Inc. statement of cash flows includes both a new purchase and a sale of property, plant, and equipment. The financing section includes both newly-acquired debt (debt proceeds) and a repayment of older debt. It also includes reconciliations to bank balances, a payment of cash dividends, and a repurchase of treasury stock. These items appear in the financing section because they deal with the liabilities and equity used to finance the operations of Golden Enterprises, Inc.

Once the statement of cash flow is constructed, the profitability of Golden Enterprises, Inc. can be analyzed with assistance from the income statement. Additionally, comments can be made on the productive capacity of Golden Enterprises, Inc. using the statement of cash flows. The profitability of Golden Enterprises, Inc. in 2013 appears to be down from 2012. Net income is lower, as is the cash and cash equivalents balance. The cash and cash equivalents balance is down forty percent. Net income appears to be lower due to a disproportionately large increase in selling and administrative expenses, which can

be seen between the income statements for 2012 and 2013. However, Golden Enterprises, Inc. still made a net income instead of a net profit, so it is still profitable. Additionally, Golden Enterprises, Inc. still has positive free cash flow in 2013. Free cash flow is a measure of whether cash flows from operations can cover capital expenditures. A positive free cash flow means that Golden Enterprises Inc.'s cash from operations is able to cover its capital expenditures, while a negative free cash flow means that cash from operations cannot cover its capital expenditures for the period.

As previously stated, the statement of cash flows can also be used to examine Golden Enterprises Inc.'s productive capacity. It appears that productive capacity is down from 2012 because the cash and cash equivalents balance is lower, and cash provided by operating activities is lower. However, operations are still providing cash, and that cash can still cover capital expenditures (positive free cash flow), so productive capacity is not concerning.

Finally, Golden Enterprises, Inc.'s 2013 Form 10-K states in the Management discussion and analysis section that the company expects to spend approximately $5,000,000 on property, plant, and equipment in the upcoming year. This will be upwards of a twenty percent increase in capital expenditures. Unless Golden Enterprises can increase its cash provided by operations and financing by about $400,000, the company should attempt to postpone this increase in expenditures. If the company wishes to keep its current positive margin of free cash flow, it would need to increase its cash provided by operations by twenty percent as well to keep pace with the increase in capital expenditures. However, if Golden Enterprises, Inc. is intent on implementing this increase, it could increase its cash flows from operating activities by increasing net income through a

decrease in its selling and administrative expenses, which, as previously stated, saw a disproportionately high increase this year. The company could also increase cash provided by operations by retaining some of its accounts payable for longer. Additionally, Golden Enterprises, Inc. could also increase its cash from financing by borrowing more debt. These options would help keep the net cash balance positive.

APPENDIX: Introductory Questions for Case Study 3

a) **What information does the statement of cash flows provide? How is this different from the information contained in the income statement?**

   The statement of cash flows deals only in transactions that involve cash. It traces cash through the period and explains changes in the cash balance on the balance sheet. On the other hand, the income statement uses accrual-based accounting, so some of the items included on it may not represent a transfer of physical cash.

b) **What are the two different methods for preparing the statement of cash flows? Which method does Golden Enterprises use? How do you know? Why do you think most companies prepare their statement of cash flows using the indirect method?**

   The two different methods for preparing the statement of cash flows are the indirect method and the direct method. Golden Enterprises uses the indirect method; this is evident by looking at its 2012 statement of cash flows, which shows a reconciliation of current balance sheet accounts that deal with cash to net income. The indirect method is usually preferred to the direct method because where the direct method just follows cash transactions, the indirect method reconciles accrual-based accounting with cash-based accounting for a period.

c) **What are the three sections of the statement of cash flows?**

   1. Operating
   2. Investing
   3. Financing

d) How do each of the three sections of the statement of cash flows relate to the balance sheet?

The operating section of the statement of cash flows explains changes in most short-term assets and liabilities since they are used in daily operations of the company. The investing section of the statement of cash flows deals with long-term assets and investments and any transactions involved in acquiring or selling them. The financing section of the statement of cash flows deals with balance sheet items used to finance the company. This includes debt and equity such as common stock, long-term notes payable, and short-term notes payable.

e) The balance sheet includes an item called "Cash and cash equivalents". What are "cash equivalents"?

Cash equivalents are very short-term papers or investments that are very liquid. Cash equivalents usually have a maturity date of three months or less.

f) Net income is determined on an accrual basis. Yet, net income is the first item on the statement of cash flows. Explain this apparent inconsistency.

Net income is the first item on the statement of cash flows because one of the benefits of the indirect method of arriving at the statement of cash flows is reconciling accrual-based accounting to cash-based accounting. Including net income on the statement of cash flows allows for this reconciliation.

CASE 4: ACCOUNTS RECEIVABLE

Pearson

November 2, 2015

One important provision of GAAP states that companies must present their receivables at net realizable value. The net realizable value is the value that receivables are realistically expected to be worth if they were sold. This means that companies should estimate the amount of accounts receivables they do not expect to collect and the amount of sales that they expect to be returned. Presenting receivables at net realizable value prevents companies from overstating their receivables and potentially misleading investors.

Contra accounts can be used to reduce receivable balances to realizable values. Contra accounts are accounts that have opposite normal balances of the account with which they are paired. They serve to reduce the carrying value of an account. Pearson uses two contra asset accounts— "provision for bad and doubtful accounts" and "provision for sales returns"—to reduce its trade receivables to their net realizable value. The provision for bad and doubtful accounts estimates the amount of trade receivables that will not be collected because a customer does not pay. Shown below in Figure 4-A is Pearson's T-account for the provision for bad and doubtful accounts for 2009.

Figure 4-A

Provision for bad and doubtful debts
All figures in £ millions

5	72
20	26
	3
	76

The £72 million credit is the beginning balance carried from the prior year's estimate. The five million debit is caused by a difference in exchange rates between currencies. The £20 million debit and the £26 million credit entries both deal with this

year's bad debt. The £26 million credit is the entry for the estimated bad debt expense for this year. The £20 million debit is the actual bad debt written off in 2009. The £3 million credit is an extra provision for bad debts gained from acquiring another business. All this leaves Pearson with a final credit balance of £76 million. The journal entries (in millions) to record the creation and utilization of the provision for bad and doubtful debts are as follows:

Jan. 1, 2009	Bad Debt Expense	26	
	Provision for Bad and Doubtful Debts		26
	To account for 2009 provision		
Dec. 31, 2009	Provision for Bad and Doubtful Debts	20	
	Trade Receivables		20
	To record bad debt written off during 2009		

The bad debt expense account is a selling, general, & administrative expense, making it an operating expense. The trade receivables account and its matching provision account both appear on the balance sheet.

The second contra account at which to look is the provision for sales returns. This account estimates the amount of sales that will be returned by customers and, consequently, the trade receivables that will not be received. The provision for sales returns offsets trade receivables on the balance sheet while the sales returns and allowance account offsets sales on the income statement. Figure 4-B shows the T-account for the provision for sales return, and below are the journal entries (in millions) to record its estimation and utilization during 2009.

Figure 4-B

Provision for Sales Returns
All figures in £ millions

443	372
	425
	354

Jan. 1, 2009	Sales Returns and Allowance	425	
	Provision for Sales Returns		425
	To account for 2009 provision		
Dec. 31, 2009	Provision for Sales Returns	443	
	Trade Receivables		443
	To account for actual sales returns in 2009		

The £372 million credit balance is the beginning provision for sales returns remaining from the prior year. The £425 million credit is the estimation of the provision for sales returns for 2009 while the £443 million debit is the actual utilization of the provision for sales return. These entries leave a credit balance of £354 million on December 31, 2009.

Once the actual utilization of the provision accounts has been identified, the T-account for gross trade receivables can be constructed. All sales for 2009 are assumed to be on credit. So the T-account starts with a £1,474 million balance from the end of 2008. Since all sales are credit sales in 2009, the sales for the year are debited to trade receivables. The 2009 ending balance of the trade receivables is £1,419 million, so the collection of receivables must be £5,679 million. Figure 4-C shows the prepared T-account for gross trade receivables.

Figure 4-C

Trade Receivables
All figures in £ millions

1,474	5,679
5,624	
1,419	

Dec. 31, 2009	Trade receivables	5,624	
	Sales		5,624
	To record for sales on credit		
Dec. 31, 2009	Cash	5,679	
	Trade receivables		5,679
	To record for receivables collected		

The notes in Pearson's financial statement give information about the timeliness with which Pearson is receiving its trade receivables. The percentage of receivables that is estimated to be uncollectible increases with the amount of time that the receivable has been overdue. This method is called the aging-of-accounts method because it estimates the amount of bad debt based on the age of the related account. If Pearson's auditors were to look at the bad debt estimation found using the aging-of-accounts method and compare it to the provision for bad and doubtful debts account for the year 2009, they would be satisfied. Under the aging-of-accounts method, the estimated uncollectible trade receivables are estimated to be £74.2 million, and the balance for the provision account is £76 million at the end of the year, which is enough to cover £74.2 million. Shown in Figure 4-D is the chart showing the number of days an account is overdue and the percentage estimated to be uncollectible.

Figure 4-D All figures in £ millions

	Trade receivables balance	Estimated % Uncollectible	Accounts estimated uncollectible
Within due date	1,096	2%	21.92
Up to three months past due date	228	4%	9.12
Three to six months past due date	51	25%	12.75
Six to nine months past due date	20	50%	10.00
Nine to 12 months past due date	4	60%	2.40
More than 12 months past due date	20	90%	18.00
Total	1,419		74.19

Trade receivables and bad debt can also be related to accounts receivable turnover and average collection period in days. The accounts receivable turnover and the average collection period in days are both useful ratios in analyzing the performance of a company, so it is important to understand things that affect these ratios. High levels of bad debt can cause the average collection period to be longer because it is taking more time to get customers to repay their credit. For 2008, Pearson had an accounts receivable turnover of 3.75, and its average collection period was 97 days. In 2009, Pearson's accounts receivable turnover increase to 3.89, and its average collection period decreased to 94 days. Perhaps Pearson had lower ratios in 2008 because the economic recession led to less consumption, slower inventory turnovers, and more economic strain hindering customers from paying debts on time.

When compared to its close competitor McGraw Hill Publishing, Pearson is shown to have a longer average collection period. In 2009, McGraw Hill's average collection period was 79 days while, as previously stated, Pearson had an average collection period of 94 days. This longer collection period could signify that Pearson is struggling more to recover its debts. To better align itself with industry standards, Pearson could perhaps offer

a sales discount to those customers who pay on time. This would encourage more timely payments leading to a shorter average collection time. Pearson could also be more selective when deciding to whom it extends credit. This could perhaps decrease the amount of bad debts, increase accounts receivable turnover, and decrease the average collection period. Questions pertaining to the concepts of this case can be found in the appendix.

APPENDIX: Introductory Questions for Case Study 4

a) **What is an accounts receivable? What other names does this asset go by?**

An accounts receivable is a promise of future cash from a customer or other party. It is essentially the extension of credit. Accounts receivables can also be called trade receivables or, simply, receivables.

b) **How do accounts receivable differ from notes receivable?**

Notes receivables earn interest while accounts receivables do not. Notes receivables also entail a physical written agreement while accounts receivables do not. Accounts receivables are usually used when making sales; notes receivables are typically for loaning money.

c) **What is a contra account? What two contra accounts are associated with Pearson's trade receivables? What types of activities are captured in each of these contra accounts? Describe factors that managers might consider when deciding how to estimate the balance in each of these contra accounts.**

Contra accounts are accounts that have the opposite normal balance of the accounts with which they are paired. Contra accounts are used to offset the balance of certain accounts for several reasons. Pearson uses the two contra asset accounts "Provision for bad and doubtful debts" and "Provision for sales returns". These accounts estimate events in which either customers will not pay their credit or in which a customer will return a product. To estimate the amounts for these contra accounts, managers will need to know things such as historical data and trends, the current economic conditions, and the current level of sales and receivables.

d) Two commonly used approaches for estimating uncollectible accounts receivable are the percentage-of-sales method and the aging-of-accounts procedure. Briefly describe these two approaches. What information do managers need to determine the activity and final account balance under each approach? Which of the two approaches do you think results in a more accurate estimate of net accounts receivable?

The percentage-of-sales method estimates bad debt to be a set percentage of the sales for that year. This percentage is set by management using historical data, current conditions, and any other factor that might affect an uncollectible account. The aging-of-accounts method uses different percentages for how much of the accounts receivable will be uncollectible based on how old or how long overdue the account is. The aging-of-accounts method probably yields a more accurate estimate of net accounts receivable because not only does it consider the age of the receivables it also reacts faster to changes in the economic environment and to demographic shifts that affect customers.

e) If Pearson anticipates that some accounts will be uncollectible, why did the company extend credit to those customers in the first place? Discuss the risks that managers must consider with respect to accounts receivable.

Pearson can anticipate that it will not be able to collect all its receivable. However, the problem arises in that it cannot anticipate exactly who will not pay. Therefore, Pearson must take risks in extending credit to all its customers and make an allowance for those who will not pay, whomever they may be.

CASE 5: U.S. GAAP
Graphic Apparel Corporation

November 4, 2015

United States companies whose stock is publicly traded and who file with the Securities and Exchange Commission must comply with the United States generally accepted accounting principles (GAAP). Additionally, other external users such as creditors may request financial statements that have been prepared according to GAAP. The use of GAAP makes financial statements more reliable because GAAP sets standards and rules for the way information about a company will be presented to an external user. This makes financial statements comparable to those of other companies.

Since Graphic Apparel Corporation (GAC) changed hands recently, many changes have been made within the company. One of the biggest changes is the new use of debt financing, which has led GAC to have a new external user for its financial statements: the bank. Until this point, GAC's only external user has been the IRS. Therefore, until now, GAC has never needed to pay much attention to the GAAP-approved way of reporting its financial information. Now that GAC must report to the bank, however, it is important that its financial statements comply with GAAP.

The bank requires that GAC have a current ratio of at least 1.0 to keep its loan. Currently, GAC has a current ratio of 1.35 because it reports its accounts receivable at $32,500, its inventory at $24,500, and its cash and cash equivalents at $4,000. This brings GAC's current assets to $61,000 and its current liabilities to $45,180. Therefore, it appears that GAC is eligible for this loan. However, once GAC corrects its policies to align with GAAP, it may not have the ratio needed for this loan, and it may need to make some changes to its equity to obtain this loan.

GAC has four main areas where its policies do not align with those defined in GAAP. These differences are how GAC accounts for its new, less dependable customers,

how GAC records its sales returns for shirts that are already at retailers, how GAC accounts for damaged inventory, and how GAC recognizes revenue from its custom shirts. After GAC adjusts each area according to GAAP principles, it can then decide whether its current ratio is acceptable for the loan, and if not, what actions it can take to become eligible for the loan.

The first area of concern is the way GAC accounts for the potential bad debts that have arisen from its transition to a new customer base. GAC lost some of its sales to its long-term, dependable retailers this year and replaced those sales with sales to several startup companies. These startup companies are not as financially stable or as dependable as GAC's former customer base. As a result, GAC expects to have $3,000 of uncollectible accounts receivable this year. GAC's usual policy is to directly write off bad debts as they occur. While this policy may have worked in the past because GAC did not expect bad debt, this policy no longer aligns with GAAP because accounts receivable is no longer being stated at its net realizable value. Net realizable value is an expectation about what accounts receivable would be worth if it were sold. Since GAC does not expect to receive $3,000 of its accounts receivable, it must make an allowance for this amount to reduce its accounts receivable to a more realistic collectible amount. The allowance account is called "allowance for bad debts". After correcting for this error, GAC's net accounts receivable balance will decrease from $32,500 to $29,500.

The second adjustment to be made is how GAC records its shirts that are currently at retailers but are likely to be returned. This adjustment requires another allowance account called "sales returns and allowances". This account is needed so that sales and accounts receivable will not be overstated. To align with GAAP, GAC needs to account

for the $15,000 of inventory still at retailers that will most likely be returned. Allowing for these returns will decrease the accounts receivable that GAC will receive from retailers by $15,000. Additionally, GAC's inventory balance will increase for the returned inventory, but it will be increased by the cost of the inventory. The cost of goods sold ratio for GAC is 51.67%. Therefore, inventory will increase by $7,750 because that is 51.67% of the total selling price of $15,000. However, GAC sells all returned inventory to discount stores at half of the inventory's original cost, so all that GAC can reasonably expect to recover is half of the returned inventory's original cost. GAAP requires inventory to be recorded at the lower of cost or market. Since the market value of this inventory is now half of the original cost, GAC must mark this inventory below cost and must reduce this $7,750 by half. Therefore, the inventory balance will be increased by $3,875. After this change, GAC's accounts receivable balance will decrease from $29,500 to $14,500, and its inventory balance will increase from $24,500 to $28,375.

Thirdly, to align with GAAP, GAC needs to correct how it accounted for the damaged inventory that resulted from a leak in the warehouse ceiling. GAC made no change to its inventory account when half of its plain shirt inventory became impaired. It should have decreased its inventory to reflect the damage. Nicki was still able to sell the damaged shirts to retailers, but she fears these shirts may be returned because she saw several of the shirts on the retailers' clearance racks. If the shirts are returned, the most Nicki can hope to get for the shirts is half of their original cost because that is the amount at which she will sell them to discount stores. Therefore, to reflect the damage and to record the inventory at the lower of cost or market, GAC should mark half of the $10,200 of plain shirt inventory to half of its original cost since its market value is now below cost.

Therefore, inventory should decrease by $2,550. This change will decrease the inventory balance from $28,375 to $25,825.

The final change that GAC needs to make to align its policies with GAAP addresses GAC's revenue recognition policies for its custom shirts. Currently, GAC recognizes revenue from the sale of its custom shirts when it receives payment for these shirts. However, this is not the policy required by GAAP. GAAP requires that revenue be recognized when the related service is performed or the related good is transferred to the customer. This policy ensures that revenues are recognized in the period in which they are earned. This allows the revenue balance to reflect revenue-generating events instead of exchanges of cash. Therefore, instead of recording revenue for the $10,000 of custom shirt orders, GAC should record $7,500 of unearned revenue related to the custom shirts for which it has already received payment but has yet to perform service. Unearned revenue is a liability, so current liabilities will increase from $45,180 to $52,680, lowering GAC's current ratio.

A decrease in accounts receivable will also result from a change to GAC's revenue recognition policy. The $2,500 of custom shirt sales that were not paid in cash should not be included in revenue or accounts receivable yet because so far, no transaction has occurred, and no service has been performed. Therefore, the $2,500 cannot be recorded as revenue, unearned revenue, or accounts receivable. Once these shirts have been made and are ready for the customers, the $2,500 can then be included in revenue and accounts receivable, or if the $2,500 is paid before the shirts are made, it can then be included in cash and unearned revenue. Since neither event has yet occurred, accounts receivable must be reduced from $14,500 to $12,000.

Once all these changes have been made, GAC should have a new accounts receivable balance of $12,000, a new inventory balance of $25,825, and the same cash balance of $4,000. Now GAC's current assets equal $41,825, a decrease from the original $61,000. Additionally, after the recognition of unearned revenue, current liabilities have increased to $52,680. When the corrected amount of current assets is divided by the corrected current liabilities, GAC's current ratio is calculated as 0.79. This ratio makes GAC ineligible for the loan it is attempting to secure from the bank. If Nicki contributes $10,855 of cash for owners' equity, then current assets will be $52,680 and will equal current liabilities, and the current ratio will be 1.0. Once GAC achieves its target current ratio, it can begin looking for areas, such as its customer base, that could be improved to yield a more stable financial situation. For more information about GAC's policies, GAAP's policies, and the alignment of the two, see the questions for the case in the appendix.

APPENDIX: Introductory Questions for Case Study 5

1. **What are the key changes affecting GAC this year?**

   This year GAC is under new ownership. It changed the design of its t-shirts, began a new relationship with a new client base, and greatly increased its custom shirts orders.

   a. **Who owns GAC?**

      Ownership of GAC transferred to Nicki this year.

   b. **Who uses GAC's financial statements?**

      The IRS and the bank both use GAC's financial statements as of 2014.

   c. **What is significant about GAC's business relationship with its new user?**

      This is the first year that the bank has needed to use GAC's financial statements because this is the first year that GAC has had long-term debt. Therefore, for the first time GAC is having to assure that its financial statements are presented according to GAAP.

2. **What are the big events to account for in 2014?**

   a. **How is the custom shirt business working out?**

      The custom shirt business increased dramatically, from $100 of orders in 2013 to $10,000 of orders in 2014. Most of these orders have already produced cash, so the custom shirt business is working out well.

   b. **What do we know about GAC's customer base?**

      Much of GAC's customer base is new this year. GAC is no longer doing business with many of its stable, dependable, long-term customers. Its new

customer base is more open to the new, edgier designs of the t-shirts. However, the new customer base is not as dependable as the old customer base and is more likely to produce bad debts.

c. How is the new graphic design working out?

The new graphic design is not very popular with GAC's usual customers, which is why many of them cut back their orders in 2014. However, new customers have been found who are interested in the design. These new customers are less stable than the ones they replaced though.

d. What happened at the warehouse this year?

This year the warehouse had a leak in the ceiling. This leak damaged approximately half of the plain shirts. While some could be fixed, others were rendered unusable.

3. What is the revenue principle? At what point does GAAP indicate revenue should be recognized?

The revenue principle is one of the fundamental principles of GAAP. This principle says that revenue should be recognized in the period in which the revenue-producing service was performed or the revenue-producing good was received by the customer. Revenue recognition is independent of the time at which cash is received. However, until this year, GAC was recording revenue when cash was received, which is incompatible with GAAP standards.

4. **When does GAC report its revenue from custom orders? Under what circumstances would this be appropriate?**

   GAC reports revenue from custom orders when it receives payment for the shirts. This would be appropriate if payment was received when the shirts were delivered to customers.

5. **What alternative point in time exists for reporting revenue from custom orders?**

   Revenue could also be reported when the service of making and delivering the shirts is completed.

6. **What method do you think is best for recognizing revenue from custom shirts? What arguments support that method?**

   It is best to recognize revenue when the service of completing and delivering the shirts has been completed. One reason that this method is preferable is simply that it is required by GAAP. It is also preferable because it more accurately presents the time at which revenue was earned. When revenue is recognized on a cash basis, view of when the service was performed is obscured. GAAP requires that revenue be matched with the period in which it is earned through performance.

7. **How would changing to this alternative method affect GAC's financial statements? How would changing to this alternative method affect GAC's current ratio?**

   Making this change would lower GAC's accounts receivable, decrease its revenue, and increase its unearned revenue. The lower accounts receivable and increased unearned revenue would cause GAC's current ratio to drop.

8. **At what value does GAAP require accounts receivable to be reported?**

   GAAP require accounts receivable to be reported at its net realizable value.

9. **What method of accounting for bad debts does GAC use? When is this method okay?**

   GAC accounts for bad debts using the direct write off method. This method is not compliant with GAAP. However, perhaps this method would be acceptable for internal users or when bad debts are not expected. In the past GAC had not had a problem with bad debts and had not anticipated any bad debts before they had occurred. Therefore, it had been using the direct write off method.

10. **Has anything changed this year to suggest this approach is no longer acceptable? What do you learn from the number of days to collect receivables in 2014 versus 2013?**

    GAC is anticipating bad debt this year because the new customer base it has established is less reliable than the customer base it had in past years. The new customers struggle to adhere to the credit terms. The number of days to collect receivables can be calculated as 365 divided by the accounts receivable turnover. The accounts receivable turnover can be calculated as net sales over the average accounts receivable balance during the year. In 2013, GAC had $170,000 of net sales and an average accounts receivable balance of $15,500. Therefore, its days to collect receivables equaled 33.28 days. In 2014, GAC had $179,950 of net sales and average accounts receivable balance of $23,750. Therefore, its days to collect receivables equaled 48.17 days. In 2014, it took longer for GAC to collect cash from receivables than it took in 2013. This increase in days to collect accounts

receivables can be attributed to GAC's new, less dependable customers because they struggle to comply with the credit terms.

11. **What alternative method could GAC use for bad debts? Does any evidence suggest it is better?**

    GAC could use the allowance methods for bad debts. This method would be better because it complies with GAAP, and it helps GAC report its accounts receivable at their net present value. The net present value helps report GAC's accounts receivable at the amount expected to be collected. This keeps accounts receivable from being overstated.

12. **What method of accounting for bad debts do you think GAC should use?**

    GAC should establish an allowance for doubtful accounts.

13. **How would changing to this alternative method affect GAC's financial statements? How would changing to this alternative method affect GAC's current ratio?**

    The allowance method would decrease GAC's accounts receivable by $3,000 which would decrease its current ratio.

14. **When does GAC report sales returns? Under what circumstances is that method acceptable?**

    GAC reports its sales returns when goods are returned. This method is acceptable when returns are immaterial or unexpected.

15. **Have circumstances surrounding returns changed in 2014? How?**

    Nicki has been seeing a lot of GAC's shirts on the clearance rack. Therefore, she is expecting more returns than GAC has seen in years past.

16. **What does GAAP recommend under these new circumstances?**

    GAAP recommends the establishment of an allowance for sales returns. This allowance helps reflect a more accurate expectation for sales revenue.

17. **Should GAC consider this alternative? Why? Are sales returns material to the key external user?**

    Yes, GAC should consider this alternative. It expects sales returns of $15,000 this year. This amount is material because it could affect GAC's ability to obtain a loan and because it is a large shift from GAC's sales returns in prior years. Therefore, GAC's financial statements should reflect this change.

18. **Which method of accounting for sales returns do you think is best?**

    Creating an allowance for sales returns is a better method because it gives a more accurate picture of sales revenue.

19. **How would changing to this alternative method affect GAC's financial statements? How would changing to this alternative method affect GAC's current ratio?**

    Changing to this allowance method would decrease accounts receivable. This change would decrease GAC's current ratio because the change in accounts receivable would decrease current assets by the $15,000 selling price of the expected returned inventory.

20. **Using what measurement does GAAP require inventory to be reported?**

    GAAP requires that inventory be reported at the lower of cost or market (LCM).

21. **Using what measurement has GAC been reporting its inventory? When is this appropriate?**

    GAC reports its inventory at cost. This is appropriate when cost is lower than the market value.

22. **Has anything changed this year to suggest this approach is no longer acceptable? What do you learn from the number of days to sell inventory in 2014 versus 2013?**

    This year half of the plain shirt inventory was damaged by a leak in the warehouse ceiling. GAC sold these shirts to retailers despite the damage. If these shirts do not sell at retailers, they will be resold to discount stores at half of GAC's original cost. Nicki has been seeing many of these shirts on the clearance racks. Since GAC expects these shirts to be returned, GAC can expect to recover only half of the cost of these damaged shirts. This means that GAC should mark the inventory below cost because the market value of this inventory is now half of the original cost of the inventory. The inventory balance should be decreased by $2,550, or half the cost of the damaged inventory. The days to sell inventory demonstrates that GAC is having more trouble selling inventory this year than it had last year. The days to sell inventory can be calculated as days in the year (365) divided by the inventory turnover. Inventory turnover for 2013 can be calculated by dividing the $81,000 cost of goods sold by the $9,000 inventory balance to get 9. Therefore, days to sell inventory for 2013 equals 40.56. Inventory turnover for 2014 can be calculated by dividing the $93,000 cost of goods sold by the $24,500 inventory balance to get

3.80. Therefore, days to sell inventory for 2014 is 96.16. This means that inventory is taking over twice as long to sell in 2014 when compared to 2013.

23. Is there any evidence to suggest that GAC will have to mark down its selling price below cost? What does the gross profit percentage in 2014 indicate about the margin of difference between selling price and cost?

GAC marks inventory below cost once it has been returned from retailers. GAC resells this returned inventory to discount stores for half the cost of the shirts. In the past, GAC has had very few returns from retailers, but because half of the plain shirts were damaged this year, GAC anticipates having more sales returns than usual. Between the 2013 year-end and the 2014 year-end, the gross profit percentage decreased from 52.35% to 48.32%, so the cost of the goods sold accounts for a little more than half of the selling price. The margin between the selling price and the cost is decreasing, but the company is still making a profit.

24. What do you think GAC should do when reporting its inventory of graphic shirts?

GAC should increase its inventory balance by $3,875 to account for the market value of the inventory that is expected to be returned from retailers. Since this inventory was not sold this year, it will be returned to GAC's inventory balance at its cost of $7,750, but its value will be reduced by half because half of the original cost is the market price GAC can expect to collect by selling this inventory to discount stores.

25. **How would changing to the alternative method affect GAC's financial statements? How would changing to this alternative method affect GAC's current ratio?**

    Including the $3,825 will increase GAC's inventory. This will increase GAC's current ratio. However, this increase in the current ratio will be offset by all the other decreases to the current ratio.

26. **If all the proposed changes were made, how would GAC's current ratio change?**

    If all the changes were made to help GAC align with GAAP, GAC's current ratio would drop from 1.35 to 0.79.

27. **How much additional equity would Nicki need to contribute to return GAC to a current ratio of 1.0?**

    To achieve a current ratio of at least 1.0, Nicki would need to contribute at least $10,855 in cash for owners' equity. This would bring Nicki's current assets to $52,680 by increasing GAC's cash and cash equivalents.

28. **What next steps would you recommend for Nicki?**

    I would recommend that Nicki contribute more equity and obtain the loan. I also think she should perhaps try to move back into her old customer base until she has enough excess profit to be riskier with her new designs and new customers.

CASE 6: DEPRECIATION

Airlines and Waste Management

November 18, 2015

PART 1: PLANES

Accumulated depreciation is a way of keeping track of how much of a long-term asset has already been used. Depreciation is essentially just an estimate since several different factors can affect depreciation, and actual usage cannot be measured accurately until it occurs. Since depreciation is an estimate, companies have some discretion as to how their firm will estimate an asset's depreciation and useful life. Of course, these estimates must be realistic and aligned with industry standards and previous expectations, but management can still influence the presentation of accumulated depreciation.

One example that shows the effect of different management decisions regarding the useful life used for accumulated depreciation calculations can be seen by observing several different airline companies and how each company depreciated a new Boeing 757. Assume Northwest Airlines, Delta Airlines, and United Airlines all purchased a new Boeing 757 on January 1, 2005 for $75 million. Each company has a different policy for estimating the useful life of this plane. Northwest estimates the Boeing 757 to have a useful life between four and 25 years, Delta estimates a useful life between 15 and 25 years, and United uses a useful life of 25 to 30 years. For simplicity of calculations, each plane will be assumed to have an average useful life, so for each company, depreciation will be calculated using the midpoint of the company's range of useful life. All three companies use straight-line depreciation and estimate residual value to be five percent of the original cost of the plane. Figure 6-A below summarizes the effects of each company's different method of calculating depreciation when all three companies sell their planes on January 1, 2009. The chart shows two independent scenarios for selling price. In Sale 1, Northwest Airlines sells

its plane for $55 million, Delta Airlines sells for $60 million, and United Airlines sells its plane for $65 million. In Sale 2, each company sells its plane for $60 million.

Figure 6-A

All figures in millions	Northwest	Delta	United
Book Value January 1, 2005	$75.00	$75.00	75.00
Residual	3.75	3.75	3.75
Depreciable amount	71.25	71.25	71.25
Useful life	14.5 years	20 years	27.5 years
Annual Depreciation	4.91	3.56	2.59
Accumulated Depreciation at December 31, 2008	19.64	14.24	10.36
Book Value at December 31, 2008	55.36	60.76	64.64
Sale Price 1	55.00	60.00	65.00
Gain (Loss) on Sale 1	(0.36)	(0.76)	0.36
Sale Price 2	60.00	60.00	60.00
Gain (Loss) on Sale 2	4.64	(0.76)	(4.64)

There are several reasons why different firms would depreciate the same asset different ways. Firstly, companies could have different usage patterns for the same asset. For example, perhaps Northwest used its Boeing 757 for long international flights that wore out the plane more quickly, and therefore, it estimated a lower useful life for the plane. On the other hand, perhaps United used its Boeing 757 for flights between Jackson, Mississippi and Houston, Texas, so it estimated a longer useful life. Additionally, changing the way depreciation is estimated changes the book value of the asset. This can change whether a gain or loss is recognized on the sale of the asset. Typically, companies that hope to recognize a gain from the sale of an asset will choose a depreciation method that depreciates the asset more quickly at first because this will lower the book value quickly.

In this example, the second sale price is probably more realistic. In the first scenario, each plane sells for a different price. However, the planes are the same type and age and should have the same market value. Therefore, the second sale is probably a more

accurate scenario of both the sales price and the gains and losses that each airline would recognize.

PART 2: GARBAGE

One important concept of accounting is the expense recognition principle. Expenses must be recognized in the period in which they are incurred. If not, net income will be overstated for the period. Depreciation expense is an expense that can be particularly easy to manipulate since it is based on estimations of salvage value and useful life. Waste Management is an example of a company that ignored the expense recognition principle to boost its earnings by incorrectly reporting its depreciation expense on its garbage trucks. Waste Management faced charges from the Securities and Exchange Commission (SEC) for these errors as well as several other errors involving deferring expenses and capitalizing items that should have been expensed. These errors ultimately overstated Waste Management's earnings by $1.7 billion over five years. Waste Management avoided depreciation expense on its garbage trucks by arbitrarily extending the trucks' useful lives and by making unsupported increases to the trucks' salvage values. These unrecorded expenses led to a higher net income and, consequently, higher retained earnings. Waste Management's managers were probably trying to influence its earnings to reach predetermined goals for retained earnings. They also could have been trying to increase stock prices by making the company look more profitable.

Waste Management is not the only one to blame for this incident. At the time, Waste Management was audited by partners from Arthur Andersen. Although Arthur Andersen was aware that Waste Management was making several incorrect choices when dealing

with its expenses, the partners still endorsed Waste Management's financial statements and stated that the statements were compliant with GAAP. Because of Arthur Andersen's purposeful endorsement of Waste Management's incorrect financial statements, Arthur Andersen faced a civil injunctive action. Additionally, of the four partners involved, three faced antifraud injunctions (the first in 20 years at the time), and one faced accusations of improper professional conduct. Neither Arthur Andersen nor any of the partners involved ever confirmed or denied the charges, but the firm and the three partners who faced antifraud charges all accepted the charges and paid cash settlements. The firm paid $7 million, the largest-ever civil penalty to date. Of the three partners who paid cash settlements, one paid $50,000, another paid $40,000, and the last partner paid $30,000.

CASE 7: CONTINGENCY FORMATTING

Construct and BigMix, Inc.

December 10, 2015

Contingencies are an important concept in accounting. They represent a possible gain or loss from an event that might occur but has not yet occurred. If the contingent event occurs, then a company's financial position can be greatly affected. However, firms must be very careful how they report contingencies so that they do not violate the faithful representation concept by overstating or understating accounts. The United States generally accepted accounting principles (GAAP) and the International Financial Reporting Standards (IFRS) vary slightly on how to deal with contingencies. Because of these variations between GAAP and IFRS, Construct must be careful to report its contingencies differently depending on the audience of its financial statements.

Contingencies can be classified based on the probability of their occurrence. The probability of a contingency can fall into one of three categories: remote, reasonably likely, or probable. IFRS defines probable as "more likely than not", meaning a likelihood of more than fifty percent. However, GAAP is a bit more stringent and defines probable as "likely", meaning a high probability. While GAAP has no probability percentage threshold, to be considered probable, a contingency would need to have a high probability of occurring such as 70-90 percent, not any probability higher than fifty percent.

When Construct purchased land from BigMix in 2007, it had no reason to believe that the probability of a loss contingency for environmental liabilities was more than remote or reasonably likely. Additionally, GAAP requires the amount of a liability to be reasonably estimated to record the liability, and in 2007 Construct had no reasonable estimate for a liability. Because in 2007 a contingency that was probable or reasonably estimated had not been identified, Construct would not have recorded a liability for environmental liabilities.

In 2008, after Construct purchased the land from BigMix Inc., BigMix filed for Chapter 11 bankruptcy. Construct was unable to gain an interest in BigMix's assets. If an environmental liability were to arise, Construct would be responsible for the costs and liabilities. However, at the time of the bankruptcy, Construct still had no way to reasonably estimate the cost or occurrence of a potential loss contingency. Therefore, under both GAAP and IFRS, it should not have recorded an environmental liability. However, to be on the conservative side, Construct may have considered recording a footnote disclosing the possibility of an economic liability.

In 2009, the EPA informed Construct that it would be testing for water contamination on the property that Construct had acquired from BigMix. Proactively, Construct contacted an agency to do some testing for potential contamination. The agency estimated that the probability of Construct incurring fees from the EPA was sixty percent and that the fees would be approximately $250,000, including legal fees. Construct now had a reasonably estimated, contingent environmental liability. Under GAAP, however, the probability of the contingent liability occurring would most likely be considered reasonably likely but not yet probable. Therefore, the contingent liability should have been disclosed but not accrued. However, this contingent liability qualifies as probable under IFRS and therefore should have been recorded as an accrued liability in 2009.

In 2010, the EPA placed the property obtained from BigMix on its National Priorities List. It named BigMix, Construct, and other former shareholders of BigMix as the potentially responsible parties. The EPA ordered that Construct would oversee the remedial investigation and feasibility study (RI/FS). To avoid the penalties of noncompliance, Construct began the RI/FS, and it filed a suit against BigMix's other

former stakeholders. The amount of the suit was currently unspecified. Although, at the time, Construct was unable to reasonably estimate the cost of the completion of the remediation efforts, it could estimate the legal costs of the remediation and the costs of the investigation. The legal costs were estimated at $100,000, and the cost of the RI/FS was estimated at $300,000. Since the costs were reasonably estimated and the research into the remediation effort was already in process, Construct could expect to incur these contingent liabilities. Therefore, an accrued liability should have been recorded in 2010 under both GAAP and IFRS in the amount of $400,000, the total of the legal and RI/FS costs.

In 2011, the RI/FS was completed, and the total cost of the remediation plan was estimated and presented to the EPA. The implementation of the remediation plan was estimated to cost $1.5 million as of 2011. Because the likelihood of the remediation plan's occurrence was probable, the likelihood of the contingent liability was also probable. Additionally, the amount of liability was reasonably estimated. So again, under GAAP and IFRS, Construct should have recorded an accrued liability in the amount of $1.5 million.

In addition to being classified based on the probability of their occurrence, contingencies can also be classified as gain contingencies or loss contingencies. Until 2012, Construct had dealt only with loss contingencies. In 2012, it faced a gain contingency due to its lawsuit against other former BigMix stakeholders. Under GAAP, gain contingencies are recognized only when they are "assured beyond a reasonable doubt". Under IFRS, gain contingencies, called contingent assets, are recognized only when the reception is "virtually certain". While loss contingencies are recognized according to their probability, gain contingencies are hardly ever recognized. Companies are hesitant to recognize gain contingencies because unrealized gains can make a company's net income look much

higher and can very easily be misleading to financial statement users. Recording gain contingencies can very easily cause a company to violate the concept of faithful representation. However, gain contingencies are very often disclosed in a footnote. Construct's attorneys had estimated that the probability of Construct receiving money in a settlement with the former stakeholders was seventy-five percent. They estimated that this settlement would probably be about $1 million. This probability of a gain contingency is too low to recognize under GAAP or IFRS, so Construct should not have reported the gain in 2012. Perhaps in subsequent years the gain will be realized and will be recorded. Until then it should remain a footnote.

CASE 8: LONG-TERM DEBTS

Rite Aid Corporation

February 3, 2016

One of the most important ways a company acquires capital and funding is through the issuance of long-term debt, be it a bond or a long-term note. Long-term debts are liabilities that will not be paid off in the current year or operating cycle, whichever is longer. Portions of the long-term debt may be paid in the current year or operating cycle, but the entirety of the debt spans across multiple operating cycles. If a portion of the long-term debt is to be paid in the current year, it is removed from long-term debt and classified as a current liability in that year. The balance sheet of Rite Aid Corporation offers good examples of several aspects of long-term debts, such as amortization methods, bond repurchases, conversions to equity, and credit ratings. The complete process of this case can be found in the appendix. Additionally, all figures in the appendix except interest rates are in thousands.

Long-term debts have a face value, also called a par value, which is stated at their issuance. The cash received in exchange for the issuance of a long-term note or bond can be above or below the debt's face value. When the cash received for a debt is less than the face amount, the debt has been issued at a discount. When the cash received for a debt is more than the face amount, the debt has been issued at a premium. Whether a debt will be issued at a discount or premium is determined by comparing the interest rate the note or bond will pay (the coupon rate) to the market rate of interest. If the debt is paying a lower rate of interest than the market, the note will issue at a discount. If the note is paying a coupon rate that is higher than the market rate of interest, the note will issue at a premium.

If a bond sells at a discount or a premium, the amount of the discount or premium must be amortized over the life of the bond. There are two methods that can be used for amortization: straight-line and effective interest rate. While the two methods amortize the

same amount of premium or discount over the entire life of the bond, the amount amortized each year is different under each method. The straight-line method amortizes equal portions of the discount or premium each period which keeps the interest expense the same. Meanwhile, the effective interest rate method maintains an equal effective interest rate each year although the actual amount of amortization and, subsequently, the interest expense recognized each year varies.

GAAP requires companies to report amortization using the effective interest method because that method leads to a more accurate picture of the interest expense for the period. However, companies can sometimes be allowed to use the straight-line method of amortization if they can prove that the differences in amortization amounts and interest expense are immaterial. Rite Aid uses the straight-line method. The appendix contains a full amortization schedule under both the effective interest method and the straight-line method. A comparison of these two amortization schedules shows that the difference between the interest expenses recognized under each method is immaterial.

Investors can use a company's long-term debt to decide that company's creditworthiness. If companies have large amounts of debt or have trouble paying their debt, investors may be hesitant to buy bonds or accept long-term notes from that company. Solvency refers to a company's ability to pay its long-term debts as they come due, which is very important when an investor is considering a certain company. Rite Aid's credit rating can be approximated using several analysis ratios pertaining to long-term debt. These ratios can also help compare Rite Aid to the rest of the industry and look at Rite Aid's solvency. Ratios for Rite Aid can be seen in Figure 8-A.

Figure 8-A

Ratio	Definition	Industry average	Rite Aid FY 2009	Rite Aid FY 2008
Common-size debt	Total liabilities/Total assets	43.83%	120.79%	114.41%
Common-size interest expense	Interest expense/Net Sales	0.35%	2.01%	1.82%
Debt to assets	Total long-term debt/Total assets	14.41%	76.84%	69.70%
Long-term debt to equity	Total long-term debt/Total equity	0.26	-3.70	-4.84
Proportion of long-term debt due in one year	Long-term debt due in one year/ total long-term debt	6.11%	0.83%	0.70%
Times-interest-earned (interest coverage)	(Pretax income + interest expense)/ Interest expense	33.44x	0.069x	-4.41x

Comparing Rite Aid to the industry average using the six ratios in Figure 8-A shows that Rite Aid is doing much more poorly than the average firm in the industry. Rite Aid is performing worse than the industry average in every ratio. Rite Aid has more long-term debt than it has assets, making it questionable as to how it will be able to pay its long-term debt. Additionally, Rite Aid is not earning the amount of interest it owes in the current period.

Standard and Poor's has a scale of credit rating opinions scaling from AAA to D that is used to evaluate different firms' creditworthiness. Using this scale, Rite Aid could be estimated to have a credit rating of CCC. This rating states that a firm is "currently vulnerable and dependent on favorable business, financial, and economic conditions to meet financial commitments". Rite Aid has a low credit rating due to its high amounts of long-term debt and its difficulty earning interest. However, its net loss improved from fiscal 2008 to fiscal 2009, and it came closer to earning its interest. Therefore, it is dependent on

favorable conditions because it improved under these conditions. Perhaps it could possibly improve its rating over time given continued favorable business, financial, and economic conditions.

APPENDIX: Introductory Questions for Case Study 8

a) **Consider the various types of debt described in note 11, Indebtedness and Credit Agreement.**

   i. **Explain the difference between Rite Aid's secured and unsecured debt. Why does Rite Aid distinguish between these two types of debt?**

   Secured debt is backed by some type of collateral, while unsecured debt is not. These two types of debt need to be separated because they represent different levels of risk and different interest rates.

   ii. **What does it mean for a debt to be guaranteed? According to note 11, who has provided the guarantee for some of Rite Aid's unsecured debt?**

   One party (the guarantor) can guarantee another party's debt by agreeing to pay the borrower's debt in case the borrower defaults. Rite Aid as a parent company has guaranteed the debt of some of its subsidiary companies.

   iii. **What is meant by the terms "senior", "fixed rate", and "convertible"?**

   Senior debt is debt that takes priority over unsecured debt. This means that in the event of a company's liquidation or bankruptcy the senior debt would be paid first. Fixed rate debt is debt that pays the same interest rate over its entire life. This assures that the investor knows how much of an interest payment to expect. If a bond is convertible, it can be converted into other types of securities.

iv. **Speculate as to why Rite Aid has many different types of debt with a range of interest rates.**

Rite Aid has many different types of debt because it has several subsidiaries and investors with different needs concerning securities. Additionally, Rite Aid uses debt with several different interest rates because the debts are issued at different times, and the market rate of interest is constantly changing. Therefore, each debt has an interest rate near the market rate of interest when the debt was issued.

b) **Consider note 11, Indebtedness and Credit Agreement. How much total debt does Rite Aid have at February 27, 2010? How much of this is due within the coming fiscal year? Reconcile the total debt reported in note 11 with what Rite Aid reports on its balance sheet.**

Rite Aid's total debt at February 27, 2010 is $6,370,899. The current portion of this debt in $51,502. The total debt found in note 11 is the aggregate of the current portion of long-term debt, long-term debt, and lease financing obligations, all of which are found on the balance sheet.

c) **Consider the 7.5% senior secured notes due March 2017.**

i. **What is the face value of these notes? How do you know?**

The face value of these notes is $500,000. This is clear because the carrying value does not change from year to year, so the note was issued at face value.

ii. Prepare the journal entry that Rite Aid must have made when these notes were issued.

Cash	500,000	
Bonds Payable		500,000

iii. Prepare the annual interest expense journal entry. Note that the interest paid on a note during the year equals the face value of the note times the stated rate (i.e., coupon rate) of the note.

Interest Expense	37,500	
Cash		37,500

iv. Prepare the journal entry that Rite Aid will make when these notes mature in 2017.

Bonds Payable	500,000	
Cash		500,000

d) Consider the 9.375% senior notes due December 2015. Assume that interest is paid annually.

i. What is the face value (or principal) of these notes? What is the carrying value (net book value) of these notes on February 27, 2010? Why do the two values differ?

The face value of these notes is $410,000. The carrying value of these notes is $405,951. These two values differ because the notes were issued at a discount, and the discount is not completely amortized.

ii. How much interest did Rite Aid pay on these notes during the fiscal 2009?

Rite Aid paid cash interest of $38,438 in fiscal 2009.

iii. Determine the total amount of interest expense recorded by Rite Aid on these notes for the year ended February 27, 2010. Note that there is a cash and a noncash portion to interest expense on these notes because they were issued at a discount. The noncash portion of interest expense is the amortization of the discount during the year (that is, the amount by which the discount decreased during the year).

Rite Aid's total interest expense for fiscal 2009 is $39,143 which includes the $38,438 cash interest plus the $705 of amortized discount.

iv. Prepare the journal entry to record interest expense on these notes for fiscal 2009. Consider both the cash and discount (noncash) portions of the interest expense from part iii above.

Interest Expense	39,143	
Discount on Bonds Payable		705
Cash		38,438

v. Compute the total rate of interest recorded for fiscal 2009 on these notes.

Total rate of interest for fiscal 2009 is 9.64%.

e) Consider the 9.75% notes due June 2016. Assume that Rite Aid issued these notes on June 30, 2009 and that the company pays interest on June 30th of each year.

i. According to note 11, the proceeds of the notes at the time of issue were 98.2% of the face value of the notes. Prepare the journal entry that Rite Aid must have made when the notes were issued.

Cash	402,620	
Discount on Notes Payable	7,380	
Notes Payable		410,000

ii. At what effective annual rate of interest were these notes issued?

These notes were issued at an effective interest rate of 10.1212%.

iii. Assume that Rite Aid uses the effective interest rate method to account for this debt. Use the table that follows to prepare an amortization schedule for these notes. Use the last column to verify that each year's interest expense reflects the same interest rate even though the expense changes.

Date	Interest Payment	Interest Expense	Bond Discount Amortization	Net Book Value of Debt	Effective Interest Rate
6/30/2009	0	0	0	402,620.00	10.12%
6/30/2010	39,975.00	40,750.00	775.00	403,395.00	10.12%
6/30/2011	39,975.00	40,828.44	853.44	404,248.44	10.12%
6/30/2012	39,975.00	40,914.82	939.82	405,188.26	10.12%
6/30/2013	39,975.00	41,009.94	1,034.94	406,223.20	10.12%
6/30/2014	39,975.00	41,114.69	1,139.69	407,362.89	10.12%
6/30/2015	39,975.00	41,230.04	1,255.04	408,617.93	10.12%
6/30/2016	39,975.00	41,357.07	1,382.07	410,000.00	10.12%

iv. Based on the above information, prepare the journal entry that Rite Aid would have recorded February 27, 2010, to accrue interest expense on these notes.

Interest Expense	27,167	
Discount on Notes Payable		517
Cash		26,650

v. Based on your answer to part *iv*, what would be the net book value of the notes at February 27, 2010?

The net book value at the end of fiscal 2009 is $403,137.

vi. Your answer to part *v* will be different from the amount that Rite Aid reported because the company used the straight-line method to amortize the discount on these notes instead of the effective interest rate method. Complete the following table using the straight-line method to amortize the bond discount. Use the last column in the table to record the interest rate each year. Under this method, does Rite Aid report the same interest rate on these notes each year?

Date	Interest Payment	Interest Expense	Bond Discount Amortization	Net Book Value of Debt	Straight-Line Interest Rate
6/30/2009	0	0	0	402,620.00	
6/30/2010	39,975.00	41,029.29	1,054.29	403,674.29	10.19%
6/30/2011	39,975.00	41,029.29	1,054.29	404,728.57	10.16%
6/30/2012	39,975.00	41,029.29	1,054.29	405,782.86	10.14%
6/30/2013	39,975.00	41,029.29	1,054.29	406,837.14	10.11%
6/30/2014	39,975.00	41,029.29	1,054.29	407,891.43	10.08%
6/30/2015	39,975.00	41,029.29	1,054.29	408,945.71	10.06%
6/30/2016	39,975.00	41,029.29	1,054.29	410,000.00	10.03%

vii. Compare the year-by-year difference in interest expense derived from each method. What pattern do you observe? Is the difference material in any year?

Under the effective interest method, interest expense and the amount of discount amortized both start low and grow each year. Meanwhile, the interest rate stays the same for all years under this method. However, under the straight-line method, the interest expense and the amount of discount

amortized stays the same, but the interest rate changes each year. Even in 2010 and 2016, when the amount of bond discount amortization shows the greatest variance, the difference is never more than $400, which is not a material difference for Rite Aid.

f) Suppose that Rite Aid engages in an open-market debt transaction during year fiscal 2010 (i.e. the year ended February 26, 2011) to repurchase the 9.5% senior notes due June 2017. Assume that Rite Aid paid $797,769 to repurchase the notes, which resulted in a gain of $3,750.

i. Prepare the journal entry to record the repurchase of these notes.

Bond Payable	810,000	
Gain		3,750
Cash		797,769
Discount on Bonds Payable		8,481

ii. Why did Rite Aid not have to pay the face value to repurchase these notes on the open market?

Rite Aid did not have to pay the face value to repurchase these notes because the notes are selling at a discount either because the market interest rate for the notes went up or because Rite Aid's credit rating went down.

iii. Is the market rate of interest at the time of the repurchase higher or lower than the 9.5% coupon rate on the notes? Is it higher or lower than the effective rate (i.e., the market rate on the notes at the time they were issued)?

The market rate at the time of the repurchase is higher than both the coupon rate and the effective rate.

g) Consider the 8.5% convertible notes due May 2015. Why do firms issue convertible notes? Why do investors buy such notes? How would Rite Aid's balance sheet be affected if these notes were converted?

Firms sometimes offer convertible notes because they can usually pay a lower coupon rate than they would be able to pay if the note were not convertible. Investors buy such notes because if the note is converted then the investor will receive equity in the form of common stock. If these notes were converted, Rite Aid would see a decrease in its liabilities and an equal increase in its stockholders' equity.

CASE 9: COMMON STOCK

Merck & Co., Inc. and GlaxoSmithKline PLC

February 17, 2016

One way companies raise capital is by issuing stock, or shares of interest in the company, to individual investors. A share of stock gives the investor a small portion of ownership in the company. There are three main types of stock.

Common stock is stock that has a low par value, voting rights in the company, and no special claim on dividends. Preferred stock is stock that has a higher par value and no voting rights; however, if a company declares dividends or bankruptcy, shareholders with preferred stock will be paid first. Companies can also buy back their own stock on the open market. When a company owns its own stock, the shares are known as treasury stock.

Shares of stock also have three different classifications. A company's stock can be classified as authorized, issued, or outstanding. Authorized stock is stock that has been approved for sale to investors. Issued stock is the stock that is currently held by investors or trading in the market. Outstanding stock is the shares of issued stock minus treasury stock, so it is all stocks currently held outside the organization. Many of the different issues involved in stock—such as why a company pays dividends or buys treasury stock and the difference between shares authorized, issued, and outstanding—are covered in the appendix of this case.

GAAP and IFRS differ on some of the aspects of stock. For example, IFRS does not require an entry on the date that dividends are declared, only when dividends are paid. Additionally, some of the terminology differs under the two methods. Some of the differences between the way in which IFRS and U.S. GAAP deal with common stock can be seen by comparing two similar pharmaceutical companies, Merck & Co. Inc. and GlaxoSmithKline plc. Merck is an American company that operates under U.S. GAAP. Meanwhile, GlaxoSmithKline is a European company that reports using IFRS.

The appendix of this case shows an in-depth analysis of the common stock and dividends of both Merck & Co., Inc. and GlaxoSmithKline plc. There is a comparison of their shares issued and their shares outstanding and several journal entries representing typical common stock and dividends transactions. Additionally, there is information on terms and processes that differ between Merck & Co., Inc. and GlaxoSmithKline plc. Finally, there are calculations of important dividend ratios for the two companies and an analysis of the difference between the two companies' numbers.

APPENDIX: Introductory Questions for Case Study 9

a) Consider Merck's common shares.

i) How many common shares is Merck authorized to issue?

5,400,000,000 shares

ii) How many common shares has Merck actually issued at December 31, 2007?

2,983,508,675 shares

iii) Reconcile the number of shares issued at December 31, 2007, to the dollar value of common stock reported on the balance sheet.

The 2,983,508,675 shares multiplied by the one cent par value equals the $29.8 million amount of common stock found on the balance sheet.

iv) How many common shares are held in treasury at December 31, 2007?

811,005,791 shares

v) How many common shares are outstanding at December 31, 2007?

2,172,502,884 shares

vi) At December 31, 2007, Merck's stock price close at $57.61 per share. Calculate the total market capitalization of Merck on that day.

$125,157,891,147.24

b) Consider GlaxoSmithKline's ordinary shares.

i) How many ordinary shares is GlaxoSmithKline authorized to issue?

10,000,000,000 shares

ii) How many ordinary shares has GlaxoSmithKline actually issued at December 31, 2007?

6,012,587,026 shares

iii) **How many ordinary shares are in free issue at December 31, 2007?**

5,373,862,962 shares

iv) **How many common shares are held in treasury at December 31, 2007?**

504,194,158 shares

v) **Explain the difference between "Share capital" and the "Share premium account" report on GlaxoSmithKline's balance sheet. What does Merck call these types of accounts on their U.S. GAAP balance sheet?**

The share capital account contains the amount of capital that covers the par value of the shares outstanding. The share premium account contains all the capital paid in excess of the par value of the stocks outstanding. The share capital account is the equivalent of Merck's common stock account, and the share premium account is the equivalent of Merck's other paid-in capital account.

c) **Why do companies pay dividends on their common or ordinary shares? What normally happens to a company's share price when dividends are paid?**

Companies pay dividends on their common stock for several reasons. They pay dividends to reward their stockholders and to signify that they are a stable, trustworthy company. Investors are more likely to invest in companies that can pay dividends and are dependable in doing so. A company's share price typically falls soon after dividends are declared, usually around the ex-dividend or record date. This occurs because the price of stock is a function of the future cash flows of the stock, which contain both the value of the stock and the value of potential dividends, and right after dividends are paid there is no value of potential dividends.

d) In general, why do companies repurchase their own shares?

There are many reasons why a company would repurchase its own stock. Companies can repurchase their own shares to improve their earnings per share. Earnings per share is equivalent to net income over the number of shares outstanding, so if a company decreases its shares outstanding while maintaining its net income it can have a higher EPS. Treasury stock might also be used to consolidate ownership of the company. Companies also buy back treasury stock when the stock is undervalued. Fewer shares on the market will hopefully drive the price up. Then the company can resell the treasury shares at the new higher price and can get more equity without having to issue new shares.

e) Consider Merck's statement of cash flow and statement of retained earnings. Prepare a single journal entry that summarizes Merck's common dividend activity for 2007.

Dividends Declared	3,310,700,000	
Cash		3,307,300,000
Dividends Payable		3,400,000

f) During 2007, GlaxoSmithKline paid ordinary dividends to shareholders.

i) Use information in the statement of cash flow (financing activities) to prepare a single journal entry that summarizes GlaxoSmithKline's ordinary dividends to shareholders for 2007.

Dividends Declared	2,793,000,000	
Cash		2,793,000,000

ii) Note 16 Dividends reports total dividends declared of £2,905 for 2007. Reconcile this to the dividends recorded in the statement of cash flow.

The declaration of a dividend is different from the payment of a dividend. Declaration is just a statement that the company intends to pay dividends soon, and payment is the actual payout of the declared dividends. GlaxoSmithKline declares dividends two quarters before it pays them. Therefore, the dividends that GlaxoSmithKline paid in 2007 are the dividends it declared in the third and fourth quarter of 2006 and the first and second quarter of 2007. This totals to £2,793 million. However, the dividends GlaxoSmithKline declared in 2007 includes dividends declared from all four quarters of 2007 and equals £2,905 million.

g) During 2007, Merck repurchased a number of its own common shares on the open market.

i) Describe the method Merck uses to account for its treasury stock transactions.

Merck uses the cost method to account for its treasury stock transactions. Under this method, treasury stock is always recorded at the amount for which it was repurchased, not at the amount of its par value. Under this method, treasury stock is also deducted from the sum of equity instead of deducted from common stock.

ii) Refer to note 11 to Merck's financial statements. How many shares did Merck repurchase on the open market during 2007?

Merck repurchased 26,500,000 million shares.

iii) **How much did Merck pay, in total and per share, on average, to buy back its stock during 2007? What type of cash flow does this represent?**

Merck paid $1,429,700,000 in total to repurchase treasury stocks, which is an average of $53.95 per share. This is a financing cash flow.

iv) **Why doesn't Merck disclose its treasury stock as an asset?**

Assets represent something that can be used to produce future profitability. Recording treasury stock as an asset inflates assets since treasury stock cannot be used to produce future profitability, so treasury stock acts as a contra equity account.

h) **During 2007, GlaxoSmithKline repurchase a number of its own shares on the open market.**

i) **Refer to Note 33 of GlaxoSmithKline's annual report. How many shares did GlaxoSmithKline repurchase on the open market during 2007? Were all of these shares held in treasury?**

During 2007, GlaxoSmithKline repurchased 285 million shares of stock, but only 269 million shares were held as treasury stock. The other 16 million were cancelled.

ii) **How much did the company pay, on average, for each share repurchased during 2007?**

GlaxoSmithKline paid £3,750 million to repurchase 285 million shares of stock, so the average price per share repurchased was £13.16.

iii) **Consider note 34 Movements in equity. What is the name of the comparable financial statement required under U.S. GAAP? Prepare a single journal entry**

that summarizes GlaxoSmithKline's share repurchases in 2007. How does this compare to the U.S. GAAP treatment?

This statement is the equivalent of the statement of retained earnings under GAAP.

Retained Earnings	3,750,000,000	
Cash		3,750,000,000

This differs from GAAP treatment in that GAAP would have also accounted for dividends declared but not paid.

i) Determine the missing amounts and calculate the ratios in the tables below. For comparability, use dividends paid for both companies rather than dividends declared. Use the number of shares outstanding at year end for per-share calculations. What differences do you observe in Merck's dividend-related ratios across the two years? What differences do you observe in the two companies' dividend-related ratios?

All figures in millions	Merck ($) 2007	2006	Glaxo (£) 2007
Dividends paid	$3,307.3	$3,322.6	£2,793.0
Shares outstanding	2,172,502,884	2,167,785,445	5,373,862,962
Net income	$3,275.4	$4,433.8	£6,134.0
Total assets	$48,350.7	$44,569.8	£31,003.0
Operating cash flows	$6,999.2	$6,765.2	£6,161.0
Year-end stock price	$57.61	$41.94	£97.39
Dividends per share	$1.52	$1.53	£0.52
Dividend yield (Dividends per share to stock price)	2.64%	3.65%	0.53%
Dividend payout (dividends to net income)	100.97%	74.94%	45.53%
Dividends to total assets	6.84%	7.45%	9.01%
Dividends to operating cash flow	47.25%	49.11%	45.33%

From 2006 to 2007, Merck's dividend-related ratios remained fairly consistent. A slight decrease in the dividends paid between the years caused the dividends to total assets and the dividends to operating cash flow ratios to decrease slightly. Although Merck's stock price rose quite a bit, its price per share fell by a cent, decreasing its dividend yield. However, Merck's dividend payout went up quite a bit between 2006 and 2007 because Merck's net income fell by more than its dividends paid did.

Compared to Merck, GlaxoSmithKline pays much lower dividends. GlaxoSmithKline's dividends per share is much lower than Merck's amount, even after taking the currency difference into consideration. There is an approximately 150 percent difference in the two companies' dividend yields. Additionally, GlaxoSmithKline's dividend payout is not even fifty percent while Merck's is slightly over 100 percent. The only ratio that is higher for GlaxoSmithKline than it is for Merck is the dividends to assets ratio. GlaxoSmithKline might have higher stock prices if it paid more attractive dividends.

j) At December 31, 2007, Merck's largest shareholder was FMR LLC, an institutional investor holding 103,253,386 Merck shares.

i) What percent of Merck's total outstanding shares did FMR hold at year end?

4.75%

ii) Assume that on January 2, 2008, FMR wishes to own 6% of Merck's outstanding common stock. How many shares would FMR have to purchase on the open market to acquire a 6% interest in the company? What journal entry would Merck prepare to record the purchase of stock by FMR? Assume the stock price for this transaction was $56.87.

FMR would need to purchase 27,096,787 more shares of stock to own 6% of Merck.

The journal entry that Merck would record would be as follows.

Cash	1,540,994,276.69	
Common Stock		270,967.87
Other paid-in capital		1,540,723,308.82

iii) Now assume that Merck's Board of Directors supports FMR's bid to become a 6% shareholder. How many shares of its own common stock would Merck have to repurchase on the open market to result in a 6% stake for FMR? What journal entry would Merck prepare in this case? Again, assume that the average stock price for this transaction was $56.87 per share.

Merck would need to have 1,720,888,100 shares outstanding. Therefore, it would need to buy back 451,614,784 shares as treasury stock. Here is the journal entry Merck would record in this case.

Treasury Stock	25,683,332,766.08	
Cash		25,683,332,766.08

CASE 10: INVESTMENTS

State Street Corporation

March 2, 2017

CONCEPTS

a. Consider trading securities. Note that financial institutions such as State Street typically call these securities "Trading account assets."

i. In general, what are trading securities?

Trading securities are debt and equity securities that are purchased by a company to be sold after a short amount of time (usually within a year). These securities are meant for quick profit maximization. Investors hope for an increase in value and a quick turnover.

ii. How would a company record $1 of dividends or interest received from trading securities?

Cash		1	
	Dividend revenue		1
Cash		1	
	Interest revenue		1

iii. If the market value of trading securities increased by $1 during the reporting period, what journal entry would the company record?

Trading account assets		1	
	Unrealized holding gain		1

b. Consider securities available-for-sale. Note that State Street calls these, "Investment securities available for sale."

i. In general, what are securities available-for-sale?

Available-for-sale securities are securities that are held for an indefinite amount of time. They are not intentionally held for profit like trading securities, but they do not necessarily have a maturity date like held-to-

maturity securities. These securities can be used to strategically manage the balance sheet.

ii. How would a company record $1 of dividends or interest received from securities available-for-sale?

Cash		1	
	Dividend revenue		1
Cash		1	
	Interest revenue		1

iii. If the market value of securities available-for-sale increased by $1 during the reporting period, what journal entry would the company record?

Investment securities available for sale		1	
	Unrealized holding gain—OCI		1

c. Consider securities held-to-maturity. Note that State Street calls these, "Investment securities held to maturity."

i. In general, what are these securities? Why can equity securities never be classified as held-to-maturity?

Held-to-maturity securities are securities that are not intended to be sold but are intended to be held all the way to their maturity dates. Equity securities can never be classified as held-to-maturity because equity securities do not have maturity dates.

ii. If the market value of securities held-to-maturity increased by $1 during the reporting period, what journal entry would the company record?

There is no entry in this scenario.

PROCESS

d. Consider the "Trading account assets" on State Street's balance sheet.

i. What is the balance in this account on December 31, 2012? What is the market value of these securities on that date?

The balance in the account on December 31, 2012 is $637,000,000. This is also the market value of these securities because these securities are recorded on the books at fair value.

ii. Assume that the 2012 unadjusted trial balance for trading account assets was $552 million. What adjusting journal entry would State Street make to adjust this account to market value (in millions)? Ignore any income tax effects for this part.

Trading account assets	85	
Unrealized holding gain		85

e. Consider the balance sheet account "Investment securities held to maturity" and the related disclosures in Note 4.

i. What is the 2012 year-end balance in this account?

The year-end balance in this account is $11,379,000,000.

ii. What is the market value of State Street's investment securities held to maturity?

The market value of State Street's investment securities held to maturity is $11,661,000,000.

iii. **What is the amortized cost of these securities? What does "amortized cost" represent? How does amortized cost compare to the original cost of the securities?**

The amortized cost is equal to $11,379,000,000. The original cost is higher than the amortized cost because the amortized cost represents the carrying value of the securities.

iv. **What does the difference between the market value and the amortized cost represent? What does the difference suggest about how the average market rate of interest on held-to-maturity securities has changed since the purchase of the securities held by State Street?**

The market value is the value the investment could demand if it were to be sold on the open market. The amortized cost is the amount of the original cost left after deducting the cost that has effectively been used over the life of the investment so far. The market value is above the amortized cost, meaning that the investments are worth more than their stated value. This probably means the market rate of interest has dropped below the interest rate the investments are offering.

f. **Consider the balance sheet account "Investment securities available for sale" and the related disclosures in Note 4.**

i. **What is the 2012 year-end balance in this account? What does this balance represent?**

The balance in the investment securities available for sale account is $109,162,000,000. This amount represents the market value of these securities as of December 31, 2012.

ii. What is the amount of net unrealized gains or losses on the available-for-sale securities held by State Street at December 31, 2012? Be sure to note whether the amount is a net gain or loss.

The net unrealized gain is equal to $1,119,000,000.

iii. What was the amount of net realized gains (losses) from sales of available-for-sale securities for 2012? How would this amount impact State Street's statements of income and cash flows from 2012?

The sales of available-for-sale securities resulted in a $55,000,000 net gain. This amount increases income and investing cash flows for 2012.

g. State Street's statement of cash flow for 2012 (not included) shows the following line items in the "Investing Activities" section relating to available-for-sale securities (in millions):

Proceeds from sales of available-for-sale securities	**$ 5,399**
Purchases of available-for-sale securities	**$60,812**

i. Show the journal entry State Street made to record the purchase of available-for-sale securities for 2012 (in millions).

Investment securities available for sale	60,812	
Cash		60,812

ii. Show the journal entry (in millions) State Street made to record the sale of available-for-sale securities for 2012. Note 13 (not included)

reports that the available-for-sale securities sold during 2012 had "unrealized pre-tax gains of $67 million as of December 31, 2011."

Cash	5,399	
Unrealized holding gain—OCI	67	
Net realized holding gains		55
Debt Investments		5,411

iii. Use the information in part g. ii to determine the original cost of the available-for-sale securities sold during 2012.

The original cost of these investments was $5,344,000,000 since the original cost would not have included a holding gain.

iv. Use Note 4 and your solution to part g. ii, to determine the amount of net unrealized gains (losses) during 2012 for the available-for-sale securities on hand at December 31, 2012. Show the journal entry that State Street would have made to mark the available-for-sale securities portfolio to market value at year end. How would this amount impact State Street's statement of cash flows for 2012? Ignore any tax considerations for this analysis.

The available-for-sale securities on hand at December 31, 2012 still carry an unrealized holding gain of $871,000,000. This amount and the entry to mark the available-for-sale securities portfolio to market value would affect the investing section of the statement of cash flows. Here is the entry that State Street would have made at year end:

12/31/12	Debt Investment	871	
	Unrealized holding gain—OCI		871

CASE 11: Revenue Recognition

Groupon

March 28, 2017

PROCESS

1. **Compare and contrast the business model of Groupon with the business models of Amazon and Wal-Mart. Referring to the risk factors in the MD&A sections of their 10-Ks, compare significant risks and opportunities across these companies. How do these business risks translate to risks in financial reporting?**

   While all three of these stores are very different, they all assist customers in acquiring a wide variety of low-priced goods. However, Amazon and Wal-Mart see their products and have ownership of the products they are selling, which is very different from Groupon, which never actually takes ownership of or handles the goods in which it helps customers acquire. Amazon and Wal-Mart differ in that Wal-Mart has very many physical stores, whereas Amazon is an online company that ships its products to its customers. Amazon's two key internal risks include expansion putting pressure and strain on management and data centers needing proper optimization and operation. Aside from those two risks, Amazon and Wal-Mart tend to have more external risks while Groupon's biggest risk is its internal control. Some of the biggest risks that Amazon and Wal-Mart face include fluctuations in the market, changes in consumer preferences, and competition from other firms.

2. **''Revenue and revenue growth are more important than income and income growth for new businesses, especially in the new-age economy.'' Do you agree with this statement? Support your opinion by analyzing the relationship between Amazon's revenue, income, and its stock price from 1997 to 2010.**

I agree with this statement. In the long-run, income and income growth will be more important because income is a more accurate picture of the actual amount of profit the company will have to use to pay dividends and invest. However, when companies are new, revenue and revenue growth are more important. Income can be improved by either increasing revenue or decreasing cost. Young companies have to concern themselves with increasing revenue because they have to show that they can attract customers and that they can make the sales necessary to keep the business alive. Cost are likely to be higher in a company's first few years, so its income may not be incredibly high, or it might even make a loss, but it must prove that it can attract business and generate plenty of sales. Income will begin to increase as revenues continue to increase and cost begin to stabilize or lower.

Figure 11-A

Amazon.com, Inc. Revenues, Income, & Stock Prices 1997-2010			
	Revenue	Income	Stock Price
1997	147,787	(31,020)	$ 4.92
1998	609,996	(124,546)	$ 58.47
1999	1,639,839	(719,968)	$ 76.13
2000	2,761,983	(1,411,273)	$ 17.31
2001	3,122,433	(567,277)	$ 14.19
2002	3,932,936	(149,132)	$ 21.85
2003	5,264,000	35,000	$ 50.40
2004	6,921,000	588,000	$ 43.22
2005	8,490,000	359,000	$ 44.82
2006	10,711,000	190,000	$ 37.67
2007	14,835,000	476,000	$ 77.70
2008	19,166,000	645,000	$ 58.82
2009	24,509,000	902,000	$ 125.41
2010	34,204,000	1,152,000	$ 169.64

This statement can also be supported by an analysis of Amazon's revenues, incomes, and stock prices for the years of 1997-2010. Figure 11-A contains these values. All values are in thousands except for stock price. Amazon was a new public company during this time, and as such, it was looking to attract investors. During the first seven years in this period, as revenue went up so did stock price every year except for two. However, income was negative all but one of these years. Clearly, investors were looking at revenue more than they were looking at income. This trend begins to slow toward the end of this period as Amazon becomes a more established company and as investors begin to look for other signs of prosperity.

3. **Using the data provided in Table 1, prepare common size income statements using revenues and cost-of-goods-sold in the original S-1 and amended S-1. Analyze trends of expenses as a percentage of revenue for 2009 and 2010. Compare and contrast the following ratios: a. Gross Margin Percentage; b. Asset Turnover Ratio.**

Figure 11-B

Groupon Common-Sized Income Statement 2009 & 2010 Original S-1: Gross Method		
	2009	2010
Revenues	100%	100%
Cost of Sales	64%	61%
Gross Margin	36%	39%
Marketing Expense	15%	37%
General & Admin. Expense	25%	33%
Other Expense	0%	28%
Net Loss	4%	58%
Net Loss to Common Shareholder	23%	64%

Figure 11-C

Groupon Common-Sized Income Statement 2009 & 2010 Amended S-1: Net Method		
	2009	2010
Revenues	100%	100%
Cost of Sales	30%	10%
Gross Margin	70%	90%
Marketing Expense	34%	91%
General & Admin. Expense	44%	68%
Other Expense	0%	65%
Net Loss	8%	134%
Net Loss to Common Shareholder	48%	146%

Between 2009 and 2010 both methods show, in percentages, an increase in expenses, a decrease in cost of sales, an increase in gross margin (from 36% to 39% under the gross method and from 70% to 90% under the net method), and an increase in net loss. The amended S-1, displayed in Figure 11-C, shows significantly lower cost of sales and significantly higher expenses than the original S-1, displayed in Figure 11-B. The lower cost of sales arises because under the net method, the amount remitted is not charged to the cost of sales as it is under the gross method. This leads to much higher gross margins under the net method, 34% higher than the gross method in 2009 and 51% higher than the gross method in 2010.

Looking at the asset turnover ratios for these years using both methods is also useful. Asset turnover ratios for 2009 are 2.03 under the gross method and 0.97 under the net method. In 2010, the asset turnover ratios are 3.60 under the gross method and 1.58 under the net method. The asset turnover ratios are much lower under the net method because the net method recognizes much less revenue than

the gross method, so the numerator of the equation is much lower while the denominator (or the total assets) stays the same. Therefore, using the gross method and recognizing more revenue gave Groupon a more attractive asset turnover ratio than it would have had otherwise.

4. **In the months leading up to Groupon's IPO, the SEC posed a number of questions regarding Groupon's choice of accounting principles for revenue recognition. Specifically, the SEC referred to the requirements in FASB's ASC 605-45-45.**

    a. **Compare the amount of revenue reported in the original and amended S-1s. What caused the difference?**

    The difference arose because Groupon switched its revenue recognition method from the gross method to the net method, and consequently, it had to recast its prior income statements using this new method. The gross method that Groupon previously used reported revenue for the total amount of the vouchers it sold. Under the new net method, Groupon only reports revenue for the amount it retains after remitting money to the merchant who issued the voucher.

    b. **Which of the two amounts do you think Groupon preferred? Why did they prefer it?**

    Groupon probably preferred its original method. It was reporting revenue equal to the entire amount of the vouchers instead of just recording the amount that would be received as commission by Groupon. This gave

Groupon much higher revenue, which, as discussed earlier, is more attractive for growing firms.

c. In correspondence with the SEC following its initial S-1 filing, how did Groupon justify its method of reporting revenue?

Groupon said that it should be able to recognize the revenue because it was the main player in the contract with the customer and that it bore more of the risk of the transaction than did the company whose coupon was being sold. Groupon declared that it was the primary obligator of the contract.

d. With reference to ASC 605-45-45, which of Groupon's arguments were weak, and why?

Groupon's argument that it was the primary obligator was a weak argument because although it had the Groupon Promise and claimed to bear a lot of credit risk on the transactions, Groupon never actually touched or delivered any of the products for which it sold vouchers. It had no responsibility to deliver the product or service, just the voucher. Responsibility to perform or deliver is one of the key factors in determining when revenue should be recognized, so it does not appear that Groupon had a right to the revenue it was recognizing under the gross method because Groupon had no responsibility to perform the services or deliver the goods covered by its vouchers.

5. Groupon had recognized revenue for the sale of high-ticket items in late 2011. Purchasers of the Groupons have a right of return, as specified in the ''Groupon Promise,'' prominently featured on its website.

a. Assess the U.S. GAAP requirement for recognition of revenue when right of return exists, specified in ASC Section 605-15-25, in the context of Groupon's business model.

Under U.S. GAAP, when right of return exists, a company may still recognize revenue. However, the company must create an estimate of sales returns that reduces the recognized revenue until the product can no longer be returned. This estimate can be created by looking at historical sales returns or by making reasonable estimates based on similar products or consumer attitudes. U.S. GAAP also says that if returns cannot be reasonably estimated or if historical levels of returns do not exist or are not applicable, then the company should record unearned revenue until the products no longer have a right-of-return. Groupon is using an estimate, but its estimate is consistently incorrect by material amounts. Despite this, Groupon continues to recognize revenue and create a returns allowance instead of recording unearned revenue.

b. Do you agree with Groupon's accounting? Why or why not?

I do not agree with Groupon's accounting. It does not properly consider how it should be estimating its return allowance and why it is having trouble making proper estimations.

c. **What could Groupon have done differently, and how would the financial statements have been affected?**

Since it had no historical evidence or reasonable way to forecast the returns of these high-ticket items, it should have recorded unearned revenue until these items could no longer be returned. Then it should have recognized the revenue. This would have resulted in lower revenue until these items could no longer be returned, but it would not have been misleading, and this method would not have led to questions about Groupon's internal controls.

6. **Groupon's restatement of 2011 fourth-quarter financials resulted in a reduction of $14.3 million of revenues and a decrease of $30 million of operating income. However, its operating cash flow was unaffected. Explain how this is possible.**

These are two different measurements. Operating income is found by deducting operating expenses from net revenues, while operating cash flow is the physical cash that was used or received from operations during the month. Since cash flow is a measurement of physical cash, it is a more objective measurement. Either cash was spent or it was not; this will not change with a new method of recording revenues and expenses. However, revenues and expenses are matched as well as possible to the period in which they were earned or used, so restating financial statements using a different measure of revenue and expense recognition will cause changes in revenues, expenses, and income, but it will not affect the amount of physical cash that was spent that year.

CASE 12: DEFERRED INCOME TAXES

Zagg Inc.

April 13, 2016

While accounting for public companies' financial statements must follow the rules of U.S. GAAP, accounting for taxable income and income taxes does not have to follow U.S. GAAP. The differences between the two methods and the different rules they follow are beyond the scope of this case. However, the differences between tax accounting and financial statement accounting give rise to amounts called deferred income tax assets and deferred income tax liabilities. These amounts occur when income recognized under U.S. GAAP differs from income recognized under tax accounting. However, deferred income tax assets or liabilities only arise when the difference between book income and taxable income is temporary. What is meant by a temporary or permanent difference will be discussed later in the case.

There are special ways to account for these deferred income tax amounts. The value of these amounts depends on the tax rate and the amount of the original difference between the book income and taxable income. This case will demonstrate how to arrive at the original differences between the two income values, how to account for deferred income tax assets and liabilities, and how to account for changes in the statutory tax rate. Additionally, it will cover other important points about deferred income tax assets and liabilities. See the appendix for a full discussion of deferred income tax assets and liabilities.

APPENDIX: Introductory Questions for Case Study 12

a. **Describe what is meant by the term book income. Which number in ZAGG's statement of operation captures this notion for fiscal 2012? Describe how a company's book income differs from its taxable income.**

   Book income is the amount of income calculated under GAAP. It differs from taxable income in that accounting for tax purposes is not required to comply with U.S. GAAP. The calculations for taxable income can exclude some forms of income that could not be excluded under U.S. GAAP. ZAGG's book income is presented as income before tax provision, and in 2012 it amounts to $23,898,000.

b. **In your own words, define the following terms:**

   i. **Permanent tax differences (also provide an example)**

      Permanent tax differences arise from differences in taxable income and book income that are not due to timing differences and will never even out. These permanent differences can arise from things such as deductions that will never be taxed, tax-exempt income, and tax credits. For example, interest earned on a municipal bond would create a permanent tax difference.

   ii. **Temporary tax difference (also provide an example)**

      Temporary tax differences are caused by events that create a timing difference between when cash is spent or received and when a revenue or expense is earned. This timing difference causes a difference in taxable income and book income recognized under U.S. GAAP. For example, receiving prepaid rent would lead to taxable income that has yet to be

recognized as book income under GAAP. Therefore, taxable income would be greater than book income, creating a deferred tax asset. Eventually, temporary differences will be resolved.

iii. Statutory tax rate

The statutory tax rate is the legal, enforceable tax rate. It can change based on level of income, but it is the same for all taxpayers of a similar situation.

iv. Effective tax rate

Effective tax rate is equal to total tax expense over total taxable income and reflects the average tax rate paid on all taxable income.

c. Explain in general terms why a company reports deferred income taxes as part of their total income tax expense. Why don't companies simply report their current tax bill as their income tax expense?

Companies include deferred income taxes in tax expense to comply with the matching principle. Under the matching principle, expenses are recorded in the same period as the revenue with which they correspond. Therefore, income tax expense includes all tax expense attributable to a period regardless of when it is paid.

d. Explain what deferred income tax assets and deferred income tax liabilities represent. Give an example of a situation that would give rise to each of these items on the balance sheet.

A deferred income tax assets is a future deductible amount. It occurs either when cash is received and taxed before revenue is recognized on the books or an amount is expensed on the books before it is paid and deducted for tax purposes. For

example, when prepaid rent is received and taxed, a deferred tax asset arises. A tax liability is the future obligation to pay taxes. It occurs either when revenue has been recognized on the books but cash has not been paid or taxed or when an amount has been paid and deducted before its expense is recognized. For example, a deferred tax liability can arise when the tax method of depreciation depreciates an asset faster than the method used for the financial statements does.

e. Explain what a deferred income tax valuation allowance is and when it should be recorded.

A deferred income tax valuation allowance is a balance sheet account used to offset the deferred tax asset account. It is used like any other valuation account in that it presents a more accurate amount that the firm hopes to recover. A deferred tax asset valuation account should be established if it is more than 50 percent likely that a company will be unable to recover the full amount of its deferred tax assets.

f. Consider the information disclosed in Note 8 – Income Taxes to answer the following questions:

i. Using information in the first table in Note 8, show the journal entry that ZAGG recorded for the income tax provision in fiscal 2012?

**entry in thousands*

Income tax expense	9,393	
Net deferred income tax	8,293	
Income taxes payable		17,686

ii. Using the information in the third table in Note 8, decompose the amount of "net deferred income taxes" recorded in income tax journal

entry in part f. i. into its deferred income tax asset and deferred income tax liability components.

The amount of "net deferred income taxes" recorded in a year is a combination of the effects of a change in deferred tax assets and of a change in deferred tax liabilities. The deferred tax assets increased from $6,300,000 in 2011 to $14,302,000 in 2012. This results in a debit to deferred tax assets of $8,002,000. The deferred tax liabilities decreased from $1,086,000 in 2011 to $794,000 in 2012. This decrease resulted in a debit to deferred tax liabilities of $292,000. The net effect of these two entries results in the "net deferred income tax" debit of approximately $8,293,000.

iii. **The second table in Note 8 provides a reconciliation of income taxes computed using the federal statutory rate (35%) to income taxes computed using ZAGG's effective tax rate. Calculate ZAGG's 2012 effective tax rate using the information provided in their income statement. What accounts for the difference between the statutory rate and ZAGG's effective tax rate?**

Effective tax rate is calculated by dividing total tax expense by total taxable income. ZAGG's total income tax expense is $9,393,000, and its total taxable income is $23,898,000. The effective tax rate is found to be 39.3 percent. ZAGG's effective tax rate could be different from its statutory rate either because of a year-to-year change in tax rates or because of a permanent difference between taxable income and book income.

iv. **According to the third table in Note 8 – Income Taxes, ZAGG has a net deferred income tax asset balance of $13,508,000 at December 31, 2012. Explain where this amount appears on ZAGG's balance sheet.**

The part of this balance that is expected to affect the next year is recorded as a current asset called "deferred income tax assets". It has a balance of $6,912,000. The other $6,596,000 is recorded as a long-term asset because it will affect future periods further than a year away.

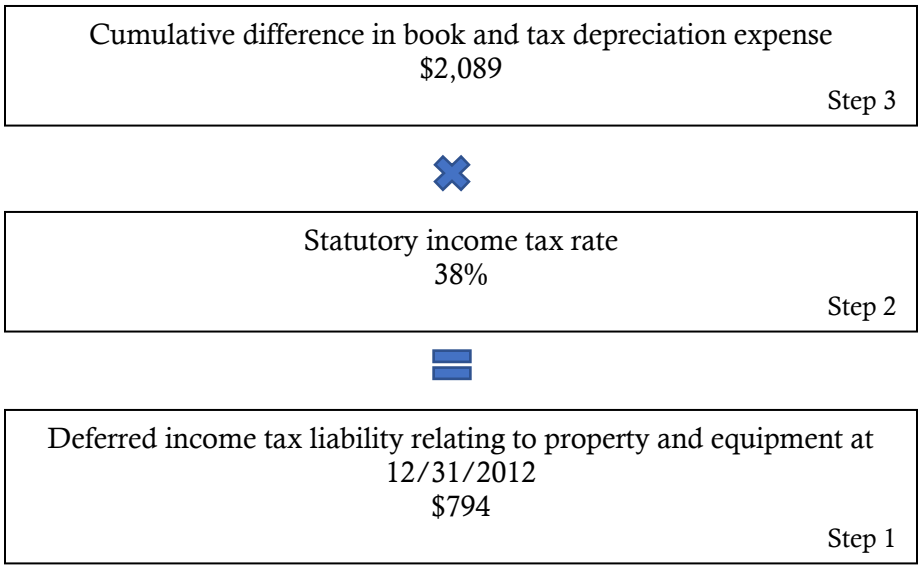
g. **The largest component of ZAGG's deferred income tax liability, labeled "Property and equipment," relates to differences between book and tax depreciation expense.**

i. **As of December 31, 2012, which system recognized a greater expense over time relation to depreciation – book or tax? Describe what information you used to make this assessment.**

Deferred tax liabilities arise due to differences in depreciation because tax depreciation has depreciated an asset faster than the book method of depreciation would have. This means that in the first few years depreciation expense is greater for the tax method of depreciation. Greater tax depreciation expenses mean greater tax deductions originally and less tax deductions in the future. This creates the liability to pay more tax in the future because of lower depreciation deductions. Overtime, the tax depreciation method begins to record less expense than the book method as the difference between the two methods reverses.

ii. Estimate the dollar magnitude of the cumulative difference in depreciation expense between the two systems as of December 31, 2012 using the chart below. Begin with step 1 and work up.

**amounts in thousands*



iii. Using the information in the chart above, determine the balance in "Property and equipment, net" on the balance sheet at December 31, 2012 if tax depreciation had been used throughout the assets' lives instead of the reported method?

Under the current method, the value in "property and equipment, net" is $4,862,000. Since the tax method depreciates assets faster, this book value would be lower if the tax depreciation method had been used. It would have been different by the $2,269,000 increase in expense found above. This would have resulted in a balance of $2,593,000 instead.

h. One of ZAGG's deferred income tax assets components relates to the "Allowance for doubtful accounts."

i. During the year ended December 31, 2012, did the book or the tax system recognize a greater expense for doubtful accounts? Describe what information you used to make this assessment.

Deferred income tax assets occur when book income is lower than taxable income. This would be the case if more expense for doubtful accounts were recorded under the book method than under the tax method. The higher current expenses would lower the book income but not the taxable income. The expenses that will later be deducted under the tax method result in future tax deductions which lead to the deferred income tax asset.

ii. Estimate the dollar magnitude of the difference in bad debt expense between the book and tax system for the year ended December 31, 2012 using the following chart. Begin with step one and work up.

**amounts in thousands*

Cumulative period difference in book and tax bad debt expense, 2012 $603 Step 3
✖
Statutory income tax rate 38% Step 2
=
Change in the deferred income tax asset relating to the allowance for doubtful accounts $229 Step 1

i. What is the amount of the deferred income tax asset valuation allowance at December 31, 2012? Explain how ZAGG determined this amount and why they determined that a valuation allowance was necessary.

The deferred income tax asset valuation allowance at December 31, 2012 is $713,000. ZAGG determined this number by analyzing its equity method investment in HzO. ZAGG determined that given HzO's current operations, its developmental status, and the uncertainty of its future profitability that it was more likely than not that ZAGG would be unable to benefit from the deferred income tax asset created by losses on the investment in HzO. Therefore, ZAGG established a valuation allowance for the entire amount of that deferred tax asset.

j. Suppose that on the first day of the next fiscal year (January 1, 2013), the Internal Revenue Service changed the federal statutory tax rate from 35% to 30%, what journal entry related to the net deferred income tax asset would ZAGG record at the time of the tax change? You may assume that the state statutory rate will not change. (Hint: when income tax rates change, companies must 're-value' their deferred income tax assets and liabilities.)

To adjust for a change in the tax rate, ZAGG must re-value the deferred income tax assets and liabilities by seeing the tax rate change's effect on the difference in book and tax value. The original net deferred tax asset of $13,508,000 is divided by the original tax rate of 35 percent to give the original difference between book income and taxable income. The original difference between the amounts is $38,594,286. That difference is then multiplied by the new tax rate of 30 percent to result in the new value of the deferred tax asset. The new value of the net deferred income tax

asset is $11,578,286. The journal entry to reconcile these two amounts and to adjust the deferred income tax asset for the new tax rate will include a credit to deferred tax asset and a debit to income tax expense and is shown below.

**entry in thousands*

Income tax expense	1,930	
Deferred tax asset		1,930

CASE 13: RETIREMENT OBLIGATIONS

Johnson & Johnson

April 29, 2016

PROCESS

a) **There are two general types of retirement (i.e. pension) plans—defined benefit plans and defined contribution plans.**

   i. **How do these two types of plans differ? Which type does Johnson & Johnson have?**

      A defined contribution plan is a plan in which the employer agrees to contribute to a pension trust based on a formula. Meanwhile, in a defined benefit plan the benefits an employee will receive upon retirement are outlined and are typically a function of an employee's years of service and compensation level. Johnson & Johnson has some defined contribution plans, but it mainly has defined benefit plans.

   ii. **Explain why retirement plan obligations are liabilities.**

      Retirement plan obligations are future obligations to pay a defined amount. Additionally, retirement plan obligations are a form of compensation paid to employees, so if employees perform the work, then the company is obligated to pay the retirement plan amounts.

   iii. **List some of the assumptions that are necessary in order to account for retirement plan obligations.**

      To account for retirement plan benefits, a company must make assumptions about how long an employee will work for the company, when the employee will retire, and how long the employee will live after retirement.

b) **In general, companies' pension obligations are influenced each year by four main types of activities: service cost, interest cost, actuarial gains or losses, and benefits paid to retirees. Explain each of the four activities in your own words.**

Service cost is the expense that arises due to the services the employee provides in exchange for the retirement benefits. Interest costs arise because pension obligations are deferred compensations amounts, and therefore, they involve interest costs. Actuarial gains or losses result from predictions made by actuaries involving mortality rates, employee turnover, future salaries, and other applicable information.

c) **In general, companies' pension assets are influenced each year by three main types of activities: actual return on pension investments, company contributions to the plan, and benefits paid to retirees. Explain each of the three items in your own words.**

The actual return on pension investments refers to the dividends and interest received on plan assets. At the beginning of the year, the company must estimate how much return it expects on its plan assets, and then at the end of the year it must report the returns it realizes. The company contributions are new amounts paid into and invested in the pension plan assets during a period, while benefits paid are distributions to retired former employees that are paid during the period.

d) In general, companies' pension expense and pension plan assets both have a "return on plan assets" component. How do the two returns differ? Explain the rationale for this difference.

One return measures the return on the pension fund investments expected during a period, while the other return measures the difference between this expected return and the actual return realized on the investment. These two are differentiated so pension fund investments can be evaluated to see if they are performing as well as a company predicts that they will. Increases or decreases in the pension's rate of return can be tracked under this method.

e) Johnson & Johnson provides other benefits to retirees including health-care and insurance benefits. What is the primary difference between the company's other-benefits plans and its retirement plans?

Benefits such as healthcare and insurance are not funded in advance, and Johnson & Johnson maintains the right to modify the terms of these benefits in the future. However, retirement plans are strictly defined and classified as liabilities because they are definitive future obligations. Additionally, retirement plan benefits are based on the employee's compensation level and years of service to the company, whereas other benefits are not a function of these things.

f) Consider Johnson & Johnson's pension expense detailed on page 61 of the company's annual report. Note that the company uses the term "net periodic benefit cost" to refer to pension expense.

i. How much pension expense did Johnson & Johnson report on its 2007 income statement?

It reported $646 million on its 2007 income statement.

ii. Prepare the journal entry to record the service cost and interest cost portion of the 2007 pension expense.

**entry in millions*

Annual Pension Expense	1,253	
Projected Benefit Obligation-Service Cost		597
Projected Benefit Obligation-Interest Cost		656

g) Consider Johnson & Johnson's retirement plan obligation, that is, the pension liability, as detailed on page 62 of the company's annual report.

i. What is the value at December 31, 2007, of the company's retirement plan obligation? What does this value represent? How reliable is this number?

The value of the plan obligation at the end of 2007 is $337 million. This value represents the current projected amount that Johnson & Johnson will be responsible for paying its employees when they retire. This number has questionable reliability because it relies on so many actuarial assumptions like those discuss in part b. However, it is the best estimate that Johnson & Johnson has given current conditions and future uncertainties.

ii. **What is the pension-related interest cost for the year? Compute the average interest rate the company must have used to calculate interest cost during 2007. Does this rate seem reasonable? Explain.**

The interest cost for 2007 is $656 million. Johnson & Johnson must have arrived at this amount by using an average interest rate of 5.6 percent. To judge the reasonableness of this rate, Johnson & Johnson would need to compare this interest rate to similar investments in the market that have similar actuarial assumptions and similar durations.

iii. **What amount of pension benefits were paid to retirees during the year? Did Jonson and Johnson pay cash for these benefits? How do the benefits paid affect the retirement plan obligation and the retirement plan assets?**

During the year, $46 million was paid to retirees in retirement benefits. These benefits were not paid in cash; they were paid using the previous contributions to retirement plan assets. Paying benefits decreases both the plan assets and the plan obligation because the assets are used to pay the obligation. Therefore, the assets no longer belong to Johnson & Johnson nor does the obligation to pay benefits.

h) **Consider Johnson & Johnson's retirement plan assets that is, the pension plan asset, as detailed on page 62 of the company's annual report.**

i. **What is the value at December 31, 2007, of the retirement plan assets held by Johnson & Johnson's retirement plan? What "value" is this?**

The value of Johnson & Johnson's retirement plan assets at the end of the year is $10,469 million. This is the fair value of the current investments and contributions that Johnson & Johnson has available to use to pay the benefits of its retirement plan.

ii. **Compare the amount of the expected return on plan assets to the amount of the actual return during 2006 and 2007. Are the differences significant? In your opinion, which return better reflects the economics of the company's pension expense?**

The 2006 expected return on plan assets is $701 million, and the expected return for 2007 is $809 million. Meanwhile, the actual return for 2006 is $966 million, and the actual return for 2007 is $743 million. The difference for 2007 is only an 8 percent change, so that is not significant, but the difference in 2006 is a change of 27 percent, which is pretty significant. The actual return should better reflect the company's pension expense because it is an actual amount, while the expected return is based on lots of assumptions about economic conditions that may or may not ever materialize.

iii. **How much did Johnson & Johnson and their employees contribute to the retirement plan during 2007? How does that compare to contributions in 2006?**

In 2007, Johnson & Johnson contributed $317 million to its retirement plan while its employees contributed $62 million. Both are increased from 2006, when the company contributed $259 million and the employees contributed $47 million.

iv. **What types of investments are in Johnson & Johnson's retirement plan assets?**

Johnson & Johnson's retirement plan assets consist of 67 percent equity securities, 32 percent debt securities, and one percent real estate and other investments.

i) **Is the company's retirement plan underfunded or overfunded at December 31, 2007? At December 31, 2006? Where does this funded status appear on the company's balance sheet?**

In 2006, the company's retirement plan is underfunded by $2,122 million, and in 2007, the plan is underfunded by $1,533 million. This can be seen by the negative amount in the "Fund status at end of year" line, which is under the change in plan assets section. It can also be seen in the projected future contributions table.