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# AN ANALYSIS OF CASES IN FINANCIAL ACCOUNTING

By
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A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

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Approved by

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# ABSTRACT

LANDON BARRAZA: AN ANALYSIS OF CASES IN FINANCIAL ACCOUNTING
(Under the direction of Dr. Victoria Dickinson)

The following thesis consists of solutions to a series of case studies in financial accounting that were completed in fulfillment of the requirements of the ACCY 420 course at the University of Mississippi for the fall and spring semester for the 2015/2016 academic year. The thirteen case studies each focus on a separate area of financial accounting and aid in the comprehension and analysis of different accounting topics, such as revenue recognition and depreciation expense. The cases were formatted as a series of questions to a specific scenario. Included are answers consisting of accounting financial statements, journal entries, calculations, and financial analysis.

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## CASE 1: FINANCIAL REPORTING AND ANALYSIS

Glenwood Heating, Inc. and Eads Heating, Inc. commenced operations at the beginning of year 20X1. Each company sells home heating units and maintains similar operations throughout the year. However, based on the financial statements and analysis presented below, I recommend investing in Glenwood Heating, Inc. Glenwood has been highly profitable throughout the year while showing favorable liquidity and debt-paying-ability. The company has generated positive net income as well as retained earnings. Glenwood is a safe and profitable investment for stockholders, setting considerably higher earnings per share than Eads. In the following statements I will present the financial situation of each company and provide further analysis as to why Glenwood is the preferred investment

| Glenwood Heating, Inc.<br>Income Statement<br>For The Year Ended December 31, 20X1 | | | | |
|---|---|---|---|---|
| Sales | | | $398,500 | |
| Cost of Goods Sold | | | 177,000 | |
| Gross Profit on Sales | | | $221,500 | |
| | | | | |
| Operating Expenses | | | | |
| Bad Debt Expense | | $994 | | |
| Depreciation Expense | | 19,000 | | |
| Interest Expense | | 27,650 | | |
| Other Operating Expenses | | 34,200 | | |
| Rent Expense | | 16,000 | | |
| Total Operating Expenses | | | $97,844 | |
| | | | | |
| Income Before Taxes | | | $123,656 | |
| Income Taxes | | | 30,914 | |
| Net Income | | | $92,742 | |
| | | | | |
| Earnings per share | | | | $28.98 |

*Table 1.1 Glenwood Income Statement*

| **Eads Heater, Inc.<br>Income Statement<br>For The Year Ended December 31, 20X1** | | | | |
|---|---|---|---|---|
| Sales | | | $398,500 | |
| Cost of Goods Sold | | | 188,800 | |
| Gross Profit on Sales | | | $209,700 | |
| | | | | |
| Operating Expenses | | | | |
| Bad Debt Expense | | $4,970 | | |
| Depreciation Expense | | 41,500 | | |
| Interest Expense | | 35,010 | | |
| Other Operating Expenses | | 34,200 | | |
| Total Operating Expenses | | | $115,680 | |
| | | | | |
| Income Before Taxes | | | $94,020 | |
| Income Taxes | | | 23,505 | |
| Net Income | | | $70,515 | |
| | | | | |
| Earnings Per Share | | | | $22.04 |

*Table 1.2 Eads Income Statement*

| Glenwood Heating, Inc<br>Retained Earnings Statement<br>For The Year Ended December 31, 20X1 | | | |
|---|---|---|---|
| Retained Earnings, January 2 | | | $0 |
| Add: Net Income | | | 92,742 |
| Less: Dividends | | | 23,200 |
| Retained Earnings, December 31 | | | $69,542 |

*Table 1.3 Glenwood Retained Earnings Statement*

| Eads Heater, Inc.<br>Retained Earnings Statement<br>For Year Ended December 31, 20X1 | | | |
|---|---|---|---|
| Retained Earnings, January 1 | | | $0 |
| Add: Net Income | | | 70,515 |
| Less: Dividends | | | 23,200 |
| Retained Earnings, December 31 | | | $47,315 |

*Table 1.4 Eads Retained Earnings Statement*

The above income and retained earnings statements compare income and earnings between the two companies. Glenwood holds considerably higher net income for the year thanks to their use of the first-in first-out method of calculating cost of goods sold. This in turn has a positive effect on retained earnings after dividends have been paid to stockholders.

| **Glenwood Heating, Inc.**<br>**Statement of Changes in Stockholders' Equity**<br>**For the Year Ended December 31, 20X1** | | | |
|---|---|---|---|
| | Total | Retained Earnings | Common Stock |
| Beginning Balance | $160,000 | $0 | $160,000 |
| Net Income | 92,742 | 92,742 | |
| Ending Balance | $252,742 | $92,742 | $160,000 |

*Table 1.5 Glenwood Statement of Changes in Stockholders' Equity*

| **Eads Heater, Inc.**<br>**Statement of Changes in Stockholders' Equity**<br>**For the Year Ended December 31, 20X1** | | | |
|---|---|---|---|
| | Total | Retained Earnings | Common Stock |
| Beginning Balance | $160,000 | $0 | $160,000 |
| Net Income | 70,515 | 70,515 | |
| Ending Balance | $230,515 | $70,515 | $160,000 |

*Table 1.6 Eads Statement of Changes in Stockholders' Equity*

| **Glenwood Heating, Inc.<br>Classified Balance Sheet<br>December 31, 20X1** | | | | |
|---|---|---|---|---|
| Assets | | | | |
| Current Assets | | | | |
| Cash | | | $426 | |
| Accounts Receivable | | $99,400 | | |
| Less: Allowance for Bad Debts | | 994 | $98,406 | |
| Inventory | | | 62,800 | |
| Total Current Assets | | | | $161,632 |
| Property, Plant, and Equipment | | | | |
| Land | | | $70,000 | |
| Building | | $350,000 | | |
| Less: Accumulated Depreciation, Building | | 10,000 | $340,000 | |
| Equipment | | $80,000 | | |
| Less: Accumulated Depreciation, Equipment | | 9,000 | $71,000 | |
| Total Property, Plant, and Equipment | | | | $481,000 |
| | | | | |
| Total Assets | | | | $642,632 |
| | | | | |
| Liabilities and Stockholders' Equity | | | | |
| Liabilities | | | | |
| Accounts Payable | | | $26,440 | |
| Interest Payable | | | 6,650 | |
| Note Payable | | | 380,000 | |
| Total Liabilities | | | | $413,090 |
| Stockholders' Equity | | | | |
| Common Stock (3,200 shares @ $50) | | | $160,000 | |
| Retained Earnings | | | 69,542 | |
| Total Stockholders' Equity | | | | $229,542 |
| | | | | |
| Total Liabilities and Stockholders' Equity | | | | $642,632 |

*Table 1.7 Glenwood Classified Balance Sheet*

| **Eads Heater, Inc.**<br>**Classified Balance Sheet**<br>**December 31, 20X1** | | | | |
|---|---|---|---|---|
| Assets | | | | |
| Current Assets | | | | |
| Cash | | | $7,835 | |
| Accounts Receivable | | $99,400 | | |
| Allowance for Bad Debts | | 4970 | $94,430 | |
| Inventory | | | 51,000 | |
| Total Current Assets | | | | $153,265 |
| Property, Plant, and Equipment | | | | |
| Land | | | $70,000 | |
| Building | | $350,000 | | |
| Less: Accumulated Depreciation, Building | | 10,000 | $340,000 | |
| Equipment | | $80,000 | | |
| Less: Accumulated Depreciation, Equipment | | 20,000 | $60,000 | |
| Leased Equipment | | $92,000 | | |
| Less: Accumulated Depreciation, Leased Equipment | | 11,500 | $80,500 | |
| Total Property, Plant, and Equipment | | | | $550,500 |
| | | | | |
| Total Assets | | | | $703,765 |
| | | | | |
| Liabilities and Stockholders' Equity | | | | |
| Liabilities | | | | |
| Accounts Payable | | | $26,440 | |
| Interest Payable | | | 6,650 | |
| Note Payable | | | 380,000 | |
| Lease Payable | | | 83,360 | |
| Total Liabilities | | | | $496,450 |
| Stockholders' Equity | | | | |
| Common Stock (3,200 Shares @ $50) | | | $160,000 | |
| Retained Earnings | | | 47,315 | |
| Total Stockholders' Equity | | | | $207,315 |
| | | | | |
| Total Liabilities and Stockholders' Equity | | | | $703,765 |

*Table 1.8 Eads Classified Balance Sheet*

| Glenwood Heating, Inc.<br>Statement of Cash Flows<br>For The Year Ended December 31, 20X1 | | | | |
|---|---|---|---|---|
| Cash Flows from Operating Activities | | | | |
| Net Income | | | $92,742 | |
| Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities: | | | | |
| Increase in Accounts Receivable | | -$99,400 | | |
| Increase in Allowance for Bad Debts | | 994 | -$98,406 | |
| Increase in Inventory | | | -62,800 | |
| Increase in Accounts Payable | | | 26,440 | |
| Increase in Interest Payable | | | 6,650 | |
| Depreciation Expense | | | 19,000 | |
| Net Cash Used by Operating Activities | | | | -$16,374 |
| | | | | |
| Cash Flows from Investing Activities | | | | |
| Purchase of Land | | | -$70,000 | |
| Purchase of Building | | | -350,000 | |
| Purchase of Equipment | | | -80,000 | |
| Net Cash Used by Investing Activities | | | | -$500,000 |
| | | | | |
| Cash Flows from Financing Activities | | | | |
| Increase in Note Payable | | | $380,000 | |
| Issuance of Common Stock | | | 160,000 | |
| Payment of Cash Dividends | | | -23,200 | |
| Net Cash Provided by Financing Activities | | | | $516,800 |
| | | | | |
| Net Increase in Cash | | | | $426 |
| Cash at Beginning of Year | | | | 0 |
| Cash at End of Year | | | | $426 |

*Table 1.9 Glenwood Statement of Cash Flows*

| Eades Heater, Inc.<br>Statement of Cash Flows<br>For The Year Ended December 31, 20X1 | | | | |
|---|---|---|---|---|
| Cash Flows from Operating Activities | | | | |
| Net Income | | | $70,515 | |
| Adjustment to Reconcile Net Income to Net Cash Provided by Operating Activities: | | | | |
| Increase in Accounts Receivable | | -$99,400 | | |
| Increase in Allowance for Bad Debts | | 4970 | -$94,430 | |
| Increase in Inventory | | | -51,000 | |
| Increase in Accounts Payable | | | 26,440 | |
| Increase in Interest Payable | | | 6,650 | |
| Depreciation Expense | | | 41,500 | |
| Net Cash Used by Operating Activities | | | | -$325 |
| | | | | |
| Cash Flows from Investing Activities | | | | |
| Purchase of Land | | | -$70,000 | |
| Purchase of Building | | | -350,000 | |
| Purchase of Equipment | | | -80,000 | |
| Purchase of Leased Equipment | | | -92,000 | |
| Net Cash Used by Investing Activities | | | | -$592,000 |
| | | | | |
| Cash Flows from Financing Activities | | | | |
| Increase in Note Payable | | | $380,000 | |
| Increase in Lease Payable | | | 83,360 | |
| Issuance of Common Stock | | | 160,000 | |
| Payment of Cash Dividends | | | -23,200 | |
| Net Cash provided by Financing Activities | | | | $600,160 |
| | | | | |
| Net Increase in Cash | | | | $7,835 |
| Cash at Beginning of Year | | | | 0 |
| Cash at End of Year | | | | $7,835 |

*Table 1.10 Eads Statement of Cash Flows*

| **Glenwood Heating, Inc.**<br>**Financial Ratios** | | |
|---|---|---|
| Liquidity Ratios | | |
| Current Ratio | 161,332/33,090 | 4.87 |
| Acid-test Ratio | (161,132-62,800)/33,090 | 2.97 |
| Accounts Receivable Turnover | 398,500/98,406 | 4.05 |
| Days to Collect Receivables | 365/4.05 | 90.10 |
| Inventory Turnover | 177,000/62,800 | 2.82 |
| Days to Sell Inventory | 365/2.82 | 129.40 |
| Operating Cycle | 129.43+9.01 | 138.40 |
| | | |
| Profitability Ratios | | |
| Profit Margins: | | |
| Gross Profit Margin | (398,500-177,000)/398,500 | 56% |
| Profit Margin | 92,742/398,500 | 23% |
| Return on Assets | 92,742/642,632 | 14% |
| Return on Owners' Equity | 92,742/229,542 | 40% |
| Earnings per Share | 92,742/3200 | $28.98 |
| | | |
| Long-term Solvency Ratios | | |
| Debt Ratio | 413,090/642,632 | 64% |
| Times Interest Earned | 123,656/27,650 | 4.47 |

Table 1.11 Glenwood Financial Ratios

| **Eads Heater, Inc.<br>Financial Ratios** | | |
|---|---|---|
| Liquidity Ratios | | |
| Current Ratio | 153,265/33,090 | 4.63 |
| Acid-test Ratio | (153,265-51,000)/33,090 | 3.09 |
| Accounts Receivable Turnover | 398,500/94,430 | 4.22 |
| Days to Collect Receivables | 365/4.22 | 86.50 |
| Inventory Turnover | 188,800/51,000 | 3.70 |
| Days to Sell Inventory | 365/3.702 | 98.60 |
| Operating Cycle | 98.6+86.5 | 185.10 |
| | | |
| Profitability Ratios | | |
| Profit Margins: | | |
| Gross Profit Margin | (398,500-188,800/398,500) | 53% |
| Profit Margin | 70,515/398,500 | 18% |
| Return on Assets | 70,515/703,765 | 10% |
| Return on Owners' Equity | 70,515/207,315 | 34% |
| Earnings per Share | 70,515/3200 | $22.04 |
| | | |
| Long-term Solvency Ratios | | |
| Debt Ratio | 496,450/703,765 | 71% |
| Times Interest Earned | 94,020/35,010 | 2.69 |

*Table 1.12 Eads Financial Ratios*

The financial statements above provide insight into the effects of accounting decisions made by each company. A major decision by Eads to capitalize leased equipment is highlighted by the balance sheet. This decision negatively affected the company in that they have more money tied into assets. Glenwood simply expensed the rent of the equipment leaving them with more cash to invest in the future.

Upon analysis of multiple financial ratios, key information regarding profitability, efficiency, and long-term solvency is revealed. Glenwood proved to be more liquid during the year based on its current ratio. Its assets were able to more efficiently cover

liabilities compared to Eads. Although Eads proved to be generally more efficient with its assets during the year, Glenwood was more profitable. Profit margin and gross profit margin were higher for Glenwood. The company also established a higher return on assets and owners' equity. Possibly the most significant comparison is earnings per share. Glenwood had much higher earnings per share compared to Eads. This is a positive sign for commons stockholders looking for a safe investment that will yield returns in the future. Glenwood established a particularly low debt ratio during the year, while having a high interest earned ratio. The numbers proves that the company is able to keep its debts at a manageable level while meeting interest requirements with earnings.

The financial statements and analysis presented in this report show a tight comparison between Glenwood Heating, Inc. and Eads Heater, Inc. However close examination proves that profitability, liquidity, and debt paying ability are all key to financial growth. Glenwood made important accounting decisions that allowed them to establish high retained earnings going into the second year of operations. Stockholders will also be happy with earnings per share, establishing positive feelings for the future growth of the company. I firmly recommend an investment in Glenwood Heating, Inc. and look forward to a steady rate of growth in the future.

## CASE 2: PROFITABILITY AND EARNINGS PERSISTENCE

The financial statements of Molson Coors Brewing Company have been used to determine the future profitability and earnings persistence of the company. When evaluating the future position of a company, it is important to consider items that fall under two categories, operating and recurring. These allow the users of financial information to determine the operations of the company that will persist in the future, and therefore affect earnings and stock price. I will evaluate each of these aspects as they relate to Molson Coors and its financial statements, and how they affect the future growth of the company.

Molson Coors presents net income through a consolidated statement of operations that includes some items that do not reflect the primary operations of the company. In order to determine the revenues and expenses that will carry over into future periods, we must eliminate non-persistent items that will not affect net income in future periods. The significant items on the income statement that are non-persistent are Special items and other income (expense). Refer to Appendix I-K to see how these items affect net income. The elimination of these items increases operating income, providing higher future earnings. This is a positive sign for investors and current stockholders. The benefit created by eliminating these non-persistent items, in Molson Coors' case, is the deduction of certain expenses from the income statement. Special items, for example, do not qualify as a recurring item. Special events like floods, restructuring, and other events cannot be quantified for future periods. The second major non-persistent item, other income

(expenses), does qualify as recurring however the amounts may be significantly different in the future. Examples of other income (expenses) include gains or losses on sale of non-operating assets, facility fees, and other losses. We now see that it is unnecessary to consider many of these activities or events in future periods because it is not a fair representation of the future state of the company. For a complete list of Molson Coors' non-persistent items, refer to Appendix L.

Molson Coors discloses balance sheet information that must also be adjusted to include only the activities that reflect primary operations. In Appendix M, net-operating assets is calculated by removing non-operating activities from assets and liabilities, and subtracting operating liabilities from operating assets. The non-operating assets and liabilities for Molson Coors are listed in Appendix M and highlight the number the difference between total operating assets and net operating assets. After calculating net operating assets, we are able to determine the return on net operating assets for future periods and the ability to generate profit on assets. This can then be compared to the return on net operating assets when using persistent income. Using persistent income is a much more accurate measure of future return and is an important step in determining overall future value of the company.

When evaluating Molson Coors Brewing Company, it is crucial to determine the activities that stem from operations and will be recurring or persistent in the future. When examining financial statements, stockholders want to see earnings and stock price increase. Determining the true recurring operations allows us to evaluate stock price and the likelihood it will increase in future periods. The calculations below adjust for the

activities that reflect recurring operations, and show stockholders the future income and earnings of Molson Coors.

The following graph illustrates the primary categories mentioned above and the desired activities that show future earnings and growth.

| | Operating | Non-operating |
|---|---|---|
| Recurring (Persistent) | Operating activities that represent future growth | Other income (expenses) |
| Nonrecurring (Transitory) | Other gains or losses on sale of operating equipment | Special Items |

## Case 2 Appendix

A. The Income Statement is comprised of seven major classifications that highlight the activities of a company.

   1) Operating section-reports revenues and expenses that represent the primary operations of the company.
   2) Non-operating section-reports revenues and expenses that represent secondary operations of the company.
   3) Income tax-reports federal and state taxes on income.
   4) Discontinued Operations-reports gains or losses from the disposition of part of the business.
   5) Extraordinary Items-Unusual and infrequent gains or losses. These will be obsolete in the near future.
   6) Non-controlling interest-reports income allocated to non-controlling shareholders.
   7) Earnings per share-reports earnings per share of common stock minus preferred dividends.

B. Under U.S. GAAP, companies are required to provide classified income statements in order to disclose to investors the origins of revenues and expenses. It is important for users of financial information to know if revenues and expenses can be expected in future years, or if they are unusual and represent only revenue and expense for the current year. This can be crucial in an investor's decision to invest in the future value of the company.

C. Financials users are highly interested in the measure of persistent income in a company. High persistent income insures financial users that the current of income can be relatively maintained in the future. It ensures consistency and reliability in future income.

D. Comprehensive income includes net income plus any peripheral transactions such as gains or losses. Typically, comprehensive income is higher than net income because it adds back these non-owner changes in equity.

E. The difference in sales and net sales is extremely important to a business like Molson Coors. Sales include the total revenue generated by the primary operations of the business. Net sales deduct, in this case, an excise tax. Excise taxes do not affect every company, however the law taxes a beer brewery. The two items are reported separately to show financial users the revenues of the company before the affect of the tax, in essence illustrating higher revenues.

F. The Income Statement of Molson Coors includes a "Special Items, Net" item.

    1) This item is used to illustrate any charges incurred or benefits realized by the company that are not indicative of the primary operations of the business. These include: Infrequent items, impairment or abandonment losses, restructuring charges, abnormal employee-related costs, fees on termination of significant operations agreements, and gains or losses on the disposal of investments.

    2) The company reports these on a separate line item in order to distinguish them from the primary operating expenses. Special items should not be

classified as operating expenses because they do not reflect expenses related to primary operations.

G. The include statement includes an item called "Other income (expense), net". This item is derived from non-operating activities that do not relate to the primary operations of selling beer. However, a distinction can be made between this and "Special Items, net" in that special items are non-recurring while other income (expense) is recurring.

H. Refer to the Statement of Comprehensive Income

   1) Comprehensive Income for 2013 amounts to $760.2 million. This is significantly higher than net income for 2013, which is $567.3 million.
   2) The difference in comprehensive income and net income lies in the peripheral transactions that do not reflect primary operations. These are included in comprehensive income, not in net income.

I. Two items on Molson Coors income statement that are non-persistent are "Special Items, net" and "Other income expense, net". Of these items, we do not expect Special items to recur, as they are activities that were not expected to occur this period or in future periods. Other income is expected to recur, however at variable future amounts.

J. See income taxes, note 7

   1) Molson Coors effective tax rate for the year 2013 is 12.8%
   2) The persistent tax rate for the company is expected to be 8.35%. This is found by taking special items and other income (expense) out of income from operations for 2013.

K. Estimate of persistent income

| | |
|---|---|
| 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 MillerCoors | 539.0 |
| Income from Continuing Operations before Tax | 1005.7 |
| Persistent tax (8.35%) | -83.98 |
| Persistent Income | $921.72 |

L.

1) Non-operating items from the Molson Coors income statement include special items (a-c) and other income (expense) (d-j) resulting from:
    a) Employee-related charges from restructuring and special terminations benefits
    b) Impairments or asset abandonment charges
    c) Unusual or infrequent items from flood loss, loan adjustment, fixed asset adjustment, release of non-income-related tax reserve, and costs associated with strategic initiatives
    d) Gain on sale of non-operating asset
    e) Bridge facility fees
    f) Euro currency purchase loss
    g) Gain from Foster's swap and related financial instruments
    h) Gain (loss) from other foreign exchange and derivative activity
    i) Los related to the change in designation of cross currency swaps
    j) Other, net

Other non-operating items include income (loss) from discontinued operations, net of tax and net (income) loss attributable to non-controlling interests

2)

| 2013 | 2012 |
|---|---|
| Special Items, net $(176) | Special Items, net $(71.63) |
| Total other income expense, net (133) | Total other income expense, net (242.26) |
| Income from discontinued operations net of tax 2.0 | Income from discontinued operations net of tax 1.5 |
| Net (income) loss attributable to non-controlling interests (4.58) | Net (income) loss attributable to non-controlling interests 3.43 |
| | |
| 3) Total after tax amount of nonoperating items $(311.58) | Total after tax amount of non-operating items $(308.96) |
| | |

3)

| 2013 | 2012 |
|---|---|
| Net Income $567.3 | Net Income $443.0 |
| Total after tax amount of non-operating items 311.58 | Total after tax amount of non-operating items 308.96 |
| Net operating profit after tax $878.88 | Net operating profit after tax $751.96 |

M. Non-operating items on balance sheet
   1) Assets:
      a) Other current assets
      b) Deferred tax assets
      c) Goodwill
      d) Other intangibles
      e) Investment in MillerCoors
      f) Deferred tax assets
      g) Notes receivable
      h) Other assets
   Liabilities:
      i) Deferred tax liabilities
      j) Discontinued operations
      k) Long-term debt
      l) Deferred tax liabilities
      m) Unrecognized tax benefits
      n) Other Liabilities
      o) Discontinued operations
   2) Net Operating Assets for 2013: $912.5 million
      Net Operating Assets for 2012: $121.8 million

N. Return on net operating assets
   1) 2013: 878.88/912.5 = 0.963
   2) 2012: 751.96/121.8 = 6.174

O. Operating profit margin and net operating asset turnover
   1) Operating profit margin
      a) 2013: 878.88/4206.1 = 0.209
      b) 2012: 751.96/3916.5 = 0.192
   2) Net operating asset turnover
      a) 2013: 4,206.1/912.5 = 4.609
      b) 2012: 3,916.5/121.8 = 32.155

   Return on net operating assets significantly decreased from 2012 to 2013.

P. Return on net operating assets
   1) 2013: 921.72/912.5 = 1.010
   2) 2012: 921.72/121.8 = 7.568

   RNOA calculation using persistent income is a much better predictor of future profitability. This is because the persistent income is expected to continue in future periods. The new RNOA is therefore more consistent.

## CASE 3: ANALYSIS OF THE STATEMENT OF CASH FLOWS

A. The statement of cash flows provides information concerning a company's cash receipts and cash payments during a period. It details the specific sources of all cash inflows and outflows in order to provide a clear reconciliation of the cash balance, which is essential to users of financial information. The statement of cash flows is much more detailed than the income statement in regards to cash flow. The income statement is necessary to provide information concerning how resources are used to generate revenue, but it does not specifically deal with cash. Without the statement of cash flows, it would be very difficult for users of financial information to determine the company's ability to generate future cash flows, pay dividends, meet obligations, and understand the difference between net income and net cash flow from operations.

B. Two methods that can be used to prepare the statement of cash flows, more specifically the operating section, are the indirect method and the direct method. Both methods are acceptable under GAAP, however the direct method is preferred by the FASB. Upon analysis of Golden Enterprises' Consolidated Statement of Cash Flows, it is clear that the company has chosen to use the indirect method to determine cash flow from operations. We know the company uses the indirect, or reconciliation, method because it begins with net income and then "reconciles" it for items that affected net income but not cash. Net cash flow is then calculated by adding back noncash charges to net income.

C. Most companies prefer to use the indirect method because it is a clear and systematic method of converting net income to net cash flow. Another important incentive is that the FASB requires all companies who use the direct method to provide an additional reconciliation showing the systematic conversion to net cash flow. This is essentially providing the indirect method, so companies save time and energy by using the indirect method from the beginning.

D. The statement of cash flows is separated into three sections or classifications.

   1. Operating Activities-involve the effects of cash transactions that determine net income. A simple way to characterize operating activities is by classifying them as current assets and current liabilities. Any activity that relates to the primary operations of the company, affect net income, and occur within a current time period will fall under the operating activities section. Depreciation, amortization, gains (losses) are also included.
   2. Investing Activities-typically involve the cash effects of dealing with long-term assets. This could include loans, the acquisition and disposition of investments, and long-lived assets.
   3. Financing Activities-Involve the cash effects of long-term liabilities and stockholders' equity. This could include acquiring cash from creditors, repaying borrowed amounts, or obtaining cash from owners and providing them with a return on their investment.

E. When forming an understanding of the three sections of the statement of cash flows, it is important to place specific activities in the proper section. This can be done by relating them to the balance sheet. As previously mentioned, items in the

operating section are considered to be current assets and current liabilities. These items are specifically categorized in the classified balance sheet. Similarly, investing activities are considered to be long-term assets. Finally, financing activities are considered to be long-term liabilities and stockholders' equity. These sections clearly relate to the headings in a balance sheet, therefore the proper section for an activity can be determined by looking at the balance sheet.

F. Cash equivalents are simply current assets that are readily convertible to cash. These investments are short-term and highly liquid. Although they are not specifically cash, they have the ability to serve cash flow purposes at any moment. Examples of cash equivalents include short-term government bonds, treasury bills, and marketable securities. They are listed first with cash on the balance sheet in order to show their high liquidity.

G. Net income is listed as the first item on the statement of cash flows under the indirect method. The purpose of this is to reconcile net income to net cash flow by converting from the accrual basis to the cash basis. We list net income first in order to illustrate how specific adjustments affect net income and convert it to net cash flow. If net income were not shown on the statement, it would be difficult for users of financial information to see the effects of cash flows on income. As previously mentioned, this is why most companies prefer the indirect method.

H. The following is the 2013 statement of cash flows for Golden Enterprises, using the indirect method:

| Golden Enterprises, Inc. and Subsidiary<br>Consolidated Statements of Cash Flows<br>For the Fiscal Year Ended May 31, 2013 | |
|---|---|
| | **2013** |
| Cash Flows from Operating Activities | |
| Net Income | $1,134,037 |
| Adjustments to reconcile net income to net cash: | |
| Depreciation | 3,538,740 |
| Deferred income taxes | (185,939) |
| Gain on sale of property and equipment | (61,040) |
| Additional adjustments: | |
| 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-other | (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 for investing activities | (4,075,164) |
| Cash Flows from Financing Activities | |
| Debt proceeds | 38,361,199 |
| Debt repayments | (38,287,529) |
| Change in checks outstanding in excess of bank balances | (267,501) |
| Purchase of treasury shares | (6,860) |
| Cash dividends paid | (1,467,879) |
| Net cash used for financing activities<br><br>Net decrease in cash and cash equivalents | (1,668,570)<br><br>(1,136,705) |
| Cash and equivalents at beginning of year | 1,893,816 |
| Cash and equivalents at end of year | $757,111 |

*Table 3.1 Golden Enterprises Consolidated Statements of Cash Flows*

## Analysis of Statement of Cash Flows

The statement of cash flows prepared above details the specific changes to certain balance sheet accounts for Golden Enterprises during 2013. Each of these changes can be traced to specific transactions that the company engaged in during the fiscal year. I will discuss each of these changes as they pertain to Golden Enterprises' statement of cash flows. Examination of the company's income statement shows net income of $1,134,037. This number represents all revenue generated by the companies operations, minus expenses incurred during the period. Net income is presented here in the operating section on an accrual basis, and the indirect method will be used to adjust income to net cash flow, or the cash basis. It is important to begin with net income in order to make the necessary adjustments in a way that is understandable to users of financial information. The first adjustment is to add back depreciation expense for the year. Depreciation is not a cash flow, therefore should not be deducted on a cash basis. Golden Enterprises incurred $3,538,740 of depreciation on property and equipment during the period. This addition can be seen in the statement above. The next item is deferred income taxes. Deferred income taxes must be deducted from net income because the amount of taxes deferred by the company decreased during 2013. This means they are essentially paying more taxes in cash during the year. In this case, deferred taxes are the net of the current and long-term asset and liability taxes. The next item listed is a gain on the sale of property and equipment. It may seem counter-intuitive to deduct a gain on sale, however the amount is already included in net income. This means that if we added the gain on the statement of cash flows, we would be double counting the amount, and our cash flow would be overstated. Deducting the gain on sale thus reconciles the cash flow to the book

value of the property or equipment on the balance sheet. The second half of the operating section deals with individual adjustments in accounts that happen over the course of the period. A simple way to handle these adjustments is by subtracting any gains in current assets and adding any gains in current liabilities. Losses can be handled in a similar way by adding them back for current assets and subtracting them for current liabilities. This method works for all current asset and liability accounts that fall under the operating section. The purpose of this method can be illustrated by considering accounts receivable and accounts payable for Golden Enterprises. Golden's receivables decreased by $106,367 during 2013. This means that the company received cash from a due payment. This amount must be added as a cash inflow because the company is directly receiving cash that was not recognized at the time of sale. Similarly, the company experienced a decrease in accounts payable of $1,216,399. This amount must be deducted as a cash outflow because Golden is paying cash for a current liability. This amount was not a cash flow at the time the liability was created. A complete list of the changes in current accounts by Golden Enterprises can be found in the operating section of the statement of cash flows above. After adjustments are made to establish the correct cash flow from operations, we must look to the company's investing activities.

The second section shown above is cash flows from investing activities. These deal with changes in cash flow that arise from transactions involving long-term assets. The first line under this section is a capital expenditure involving the purchase of property, plant, and equipment. Golden purchased $4,149,678 of new property, plant, and equipment for cash during 2013. We deduct this amount on the statement to show a cash outflow. The second item under investing activities is a sale of property, plant, and

equipment for $74,514. This amount is added to the statement in order to show cash inflow from the sale of long-term assets. While this total amount is shown in the investing section, the difference between the sale value and the book value of the asset sold is listed as a gain in the operating section. The total of these two items represents net cash used by investing activities.

The third section of the statement of cash flows is cash flows from financing activities. These items deal with cash flows that arise from transactions involving long-term liabilities and stockholders' equity. This section is important because it highlights the companies' debt and equity financing activities. The first item listed is for $38,361,199. The total represents the amount of new debt issued by Golden Enterprises in 2013. The second item of $38,287,529 is the amount the company spent to repay previously issued debt. The company is using cash to pay off its older debt, while replacing it with newly issued debt. The next item is a change in checks outstanding in excess of the bank balance. This is essentially a bank overdraft that represents a loan provided by a bank to the company. This loan is a form of financing, so it must be included in the financing section of the statement of cash flows. Since the bank overdraft decreased during 2013, the company considers it a cash outflow because $267,501 of the loan was repaid to the bank. Golden Enterprises purchased $6,860 worth of treasury shares during 2013. This amount represents the value of its own shares that the company bought back. Because they purchased these shares, a cash outflow is recorded on the statement. The final item listed in the financing section is cash dividends paid. This amount is particularly important to investors who wish to see a positive return in dividends in future periods. Golden paid $1,467,879 in dividends in 2013. This amount is

subtracted as a cash outflow for the period. Each of these items is totaled to determine net cash used for financing activities. As shown above, Golden Enterprises used $1,668,570 for financing activities during 2013. Although this is a negative number, it shows that the company is in the process of repaying some of its debt by way of assets.

The final three lines of the statement of cash flows illustrate cash and equivalents at the beginning of the year, plus net increase (decrease) in cash, to reach cash and equivalents at the end of the year. Golden Enterprises had an overall net decrease in cash of $1,136,705 for 2013, leaving the company with a cash balance of $757,111. Now that we have a clear understanding of how each of Golden's activities relate to the statement of cash flows, we can use this information to evaluate other specific activities of the company, as well as the company's profitability and ability to generate cash.

I. Depreciation and amortization are added back to net income in the operating section. However this does not mean that they actually generate cash for the company. These items are added back in order to reconcile net income to net cash flow. Before reconciliation, depreciation and amortization expenses are deducted from income, as shown on an income statement. However these expenses are not cash flows. Therefore they must be added back on the statement in order to show the appropriate balance of cash.

J. When comparing the 2013 statement of cash flows and the statement of income for Golden Enterprises, it is clear that the amount of cash generated by the company is significantly greater than net income. This is expected due to the high amount of depreciation the company has on its assets. It is clear that Golden relies heavily on its long-term assets, which are effective at generating cash from

operations. However the high amount of depreciation could be concerning for the value of the company's long term assets in the future. Golden is a profitable company, with much of its cash tied up in assets. It is important for the company to maximize its assets' ability to generate cash.

K. Golden Enterprises has slowly decreased productive capacity over the past three years. Cash provided by operations decreased from 2012 to 2013. The company also used less cash in investing activities during the year mainly because they are not purchasing as much equipment as in the previous year. Financing activities stayed relatively similar between 2012 and 2013, slightly increasing. Although the company has slowed its productive capacity, it does not necessarily signal trouble. The company is still showing positive cash flow from operations, meaning its assets are being used effectively. The company may have used this period to repay more debt and return dividends to its investors. In that case, the company should be in a good position with regards to debt and equity in the coming years.

L. If Golden Enterprises expects to spend $5,000,000 on property, plant, and equipment next year, it must seriously consider the productive capacity of those assets and be confident in their ability to generate cash. The company must also be willing to finance this level of investment through debt and stockholders' equity. Without a significant increase in cash flow from operations in the next year, Golden Enterprises will not have reasonable capacity to make these expenditures without financing a large amount of it through debt. Total cash flow could become a significant outflow and leave the company at risk in the next few years. However, the company has proved that its assets have the ability to

generate cash from operations; therefore this investment could pay off in the long run.

The statement of cash flows is a crucial part of the financial statements of every company. Without it, users of financial information would be unable to determine important information related to the company, including the company's ability to generate cash flows in future periods, the company's ability to pay dividends and meet obligations, a comparison of net income and net cash flow from operations, and the investing and financing activities during a period. All of this information helps users determine the future profitability and viability of a company. In the case of Golden Enterprises, we were able to examine each part of the statement in order to show how the company purchases and sells its assets in order to increase cash flow from operations, while financing its needs through debt and equity. Although the company slowed its productive capacity this year, it did so in order to prepare for a major investment next year. The goal is to use this and other investments to generate even greater cash flows that will allow the company to achieve high revenue, control its debt, and reward its investors in the future.

## CASE 4: ACCOUNTS RECEIVABLE

A. An account receivable is a claim held against a customer and others for money, goods, and services. Accounts receivable are oral promises made by the buyer to pay for goods and services sold. These can also be classified as either trade or nontrade receivables.

B. Accounts receivable differ from notes receivable in that accounts receivable are oral promises to pay for goods and services. These are typically short-term extensions of credit that are normally collectible within 30 to 60 days. Notes receivable are written promises to pay on a future date.

C. A contra account is a general ledger account that has a balance that is opposite of the normal balance of the account. For example, the allowance for doubtful accounts is a contra asset account. It has a credit balance, which is opposite of the normal debit balance of the asset accounts. The two contra accounts associated with Pearson's trade receivables are the provision for bad and doubtful debts and the provision for sales returns. The provision for bad and doubtful debts estimates a percentage of receivables that will become uncollectible. This percentage can be determined using a composite rate that represents an estimate of the uncollectible receivables. The provision for sales returns estimates a percentage of sales that

D. will be returned by the buyer. Historical factors play a major role in determining proper estimates, however they are never completely accurate.

E. The two commonly used approaches for estimating uncollectible accounts are the percentage-of-sales procedure and the aging-of-accounts procedure. The percentage-of-sales procedure estimates the percentage of credit sales that will be uncollectible based on past experience and credit policy. This value represents the adjustment needed to increase both bad debts expense and the provision for bad and doubtful debts. On the other hand, the aging-of-accounts procedure estimates a percentage of outstanding receivables that will be uncollectible. This procedure represents the total balance needed in the provision for bad and doubtful debts. The aging-of-accounts procedure provides a more accurate estimate of the net realizable value of accounts receivable because it estimates the total provision that will be deducted from the gross accounts receivable balance.

F. Pearson extends credit to customers in order to encourage these customers to pay within a reasonable time frame. The goal is to find a balance between the seller, who wants payment quickly, and the buyer, who wants to delay payment. By extending credit to the buyer, the company provides incentive to receive the payment in a timely manner. This can then reduce the risk associated with accounts receivable, that being the possibility that the company will not receive payment for the sale of assets.

Provision for bad and doubtful debts

| | | |
|---|---|---|
| | Beg. Bal. | 72 |
| 5 | | |
| | | 26 |
| 20 | | |
| | | 3 |
| | End. Bal. | 76 |

i. The first item represents the beginning balance of the provision for bad and doubtful debts account (all figures in millions). The reduction of five in the account represents the amount deemed uncollectible due to exchange rate differences in currency. The increase of 26 represents a movement on the income statement to reflect the accrual basis. The reduction of 20 relates to the actual amount of bad debts that needed to be utilized by the company. This amount was uncollected. The final increase of 3 represents an acquisition through business combination that needs to be estimated for bad debts. The final balance of 76 is the total current balance for the provision.

ii. Journal entries for the Provision for bad and doubtful debts account, 2009:

Provision for bad and doubtful debts 5

Gain on Exchange differences 5

Bad and doubtful debts expense 26

Provision for bad and doubtful debts 26

Provision for bad and doubtful debts 20

Trade Receivable 20

Loss on acquisition of business 3

Provision for bad and doubtful debts 3

In the above entries, the trade receivable and provision for bad and doubtful debts are balance sheet accounts. The gain on exchange differences and bad and doubtful debts expense are income statement accounts.

iii. The provision itself is included in the balance sheet, however the expenses that comprise the provision are included in the income statement as a line item under the operating expenses section.

G.

i.

Provision for sales returns

| | |
|---|---|
| | Beg. Bal. 372 |
| | 425 |
| 443 | |
| | End. Bal. 354 |

ii. Journal entries for the Provision for sales returns account, 2009:

Sales returns and allowances 425

Provision for sales returns 425

Provision for sales returns 443

Trade Receivable 443

In the above entries, the provision for sales returns and trade receivables are balance sheet accounts. Sales returns and allowances is an income statement account that reduces sales to achieve net sales.

iii. Estimated sales returns appear in the Sales returns and allowance account on the income statement. It is located in the operating section under revenues.

H.

Gross trade receivables

| Debit | Credit |
|---|---|
| Beg. Bal. 1,474 | |
| | 20 |
| 5,624 | |
| | 443 |
| | 5,216 |
| End. Bal. 1,419 | |

The beginning balance of 1,474 (millions) is the ending balance in the gross trade receivables account at the end of 2008. A deduction of 20 from the account is used to cover the actual debts that were not collected during the year. This amount is also deducted from the provision for bad and doubtful debts.

The increase of 5,624 to the account includes credit sales recorded during the period. A credit to sales revenue is also recorded.

The deduction of 443 from the account includes sales returns during the period. This amount is then credited to the trade receivables account eliminate that receivable.

The final deduction of 5,216 from the account includes the receipt of payment for credit sales during the period. This entry includes a debit to cash.

Journal entries to record sales on account and accounts receivable collection, 2009:

Trade receivables 5,624

Sales revenue 5,624

Cash 5,216

Trade receivables 5,216

I.

| | Trade receivables balance (1) | Estimated percent uncollectible (2) | Accounts estimated uncollectible (1 x 2) |
|---|---|---|---|
| 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 |
| Nine to 12 months past due date | 4 | 60% | 2.40 |
| More than 12 months past due date | 20 | 90% | 18 |
| Total | 1,419 | | 74.19 |

Based on the total above, the company estimates that 74.19 pounds (million) will be uncollectible at December 31, 2009. The provision recorded 76 in the financial

statements. The auditor should feel comfortable with this amount based on the estimate. Although there is a difference of 1.81, the estimate is close enough for it to be considered reasonable.

J.

| | 2009 | 2008 |
|---|---|---|
| Credit sales, net | 5,624 | 4,811 |
| Average gross trade receivables | 1,446.5 | 1,446.5 |
| Accounts receivable turnover | 3.89 | 3.33 |
| Average collection period | 93.83 | 109.61 |

The above data shows an increase in accounts receivable turnover between 2008 and 2009. The data also shows a significant decrease in the average collection period from 2008 and 2009. Both of these are positive signs for the company, as they should strive to increase accounts receivable turnover and decrease the average collection period in order to receive cash from credit sales in a timely fashion.

The above changes could have been caused by a number of factors, including the significant increase in sales between 2008 and 2009. The company also had minimal actual bad debts in 2009, so the turnover was faster and the collection period shorter.

K. Pearson can take a few different measures to decrease the average collection period and align more with its competition. I recommend the implementation of a slightly tighter credit policy in order to encourage buyers to pay quickly and on

time. The CFO should consider reducing its credit sales and increasing cash sales. This would ensure less risk for the company and decrease the likelihood that payment of receivables would be delayed or not collected.

Receivables are vital accounts for both buyers and sellers. Although there is some risk involved, maintaining control and constant analysis of factors such as accounts receivable turnover and average collection period can allow for successful collection of most receivables. Provisions for bad and doubtful debts allow the company to prepare for those receivables that are uncollectible and provide a fair estimate of the net realizable value of its receivables.

CASE 5: REVENUE RECOGNITION

1.

    a. The new owner of GAC is Nicki. She took over the company after the original owner became ill.
    b. Previously, the only user of GAC's financial information was the Internal Revenue Service. This year, the company shifted to debt financing. GAC is now required to submit financial statements to the bank within 60 days of its August 31 year-end.
    c. GAC's new business relationship with the bank requires the company to maintain a minimum current ratio of 1.0. If GAC fails to meet this requirement, they will have to get an external audit of the financial statements.

2.

    a. The custom shirt business seems to be a positive aspect of the company's operations this year. Nicki has strong personal connections with community sports teams and organizations. In August of 2014, she was able to start production on $10,000 in custom shirt orders. This was a huge boost in production since, in prior years, the fall was a slow period for the company. For example, during the fall of 2013, GAC had only $100 in custom orders.
    b. Under the direction of the previous owner, GAC had a predominately

conservative base. When Nicki took over, she began creating edgier designs in order to establish a reputation from new and fresh looks.

c. Although she garnered praise from bloggers and fashion critics, she lost much of her conservative customer base. This was a huge mistake, because her new customers have proven to be less reliable and not as well managed as the conservative retailers. She can no longer be confident that she will collect all of her receivables.

d. The new graphic design is very popular among bloggers and fashion critics. Unfortunately, bloggers and fashion critics do not generate revenue. Nicki has abandoned her reliable customer base by creating edgier designs that are much less conservative. Although she has new retailers who are interested in the edgier designs, they are less reliable and have found it difficult to comply with GAC's sales terms. Nicki is already estimating that $3,000 of the August 2014 Accounts Receivable will not be collected. This will cause the net realizable value of accounts receivable to decrease.

e. In May of 2014, it was discovered that GAC's warehouse roof was leaking. There was no structural damage to the warehouse, however the leak caused stains and water damage in half of the plain shirts that had been purchased. Nicki made a grave mistake in selling shirts that were imperfect. Although it is yet to be seen how customers will respond to the imperfections, the quality of GAC's product has been diminished. Over

time, this will create negative feedback among customers, which will force retailers to pull the shirts from their shelves.

3. The revenue principal states that revenues should only be recorded when they have been earned. GAAP indicates that revenue should be recognized when an entity has substantially completed a revenue generation process.
4. GAC recognizes revenue on its customer shirts in advance, before the company has created the actual shirts. The company does not allow returns on these sales. The only circumstance in which this would be appropriate was if the seller gave up all ownership and right to the shirts except for the right to recover the shirts in case of customer default on payment.
5. The alternative point in time in which revenue should be reported is completion and delivery of the shirts. At the point of delivery, GAC's obligation to the buyer would be complete, and an adjustment would be made to clear the original prepayment and recognized revenue. This is the proper method of revenue recognition under GAAP.
6. Recognizing revenue should take place upon successful completion of the seller's obligation. For GAC, that obligation is completed once the ordered shirts are finished and delivered to the buyer. When the original order is placed and cash is received, GAC should increase the cash account and increase a prepaid liability account. Upon completion of the obligation, the company should decrease the

liability account and increase revenue by the amount of the sale. This method provides full disclosure of GAC's obligations and liabilities.

7. The alternative method for recognizing revenue would change GAC's sales revenue on the income statement and current liabilities on the balance sheet. Sales revenue will decrease by $10,000 and current liabilities will increase by $10,000. The effects of these changes on the current ratio are shown below.

| Original current ratio | New current ratio |
|---|---|
| CA/CL = current ratio<br>61,000/45,180 = 1.35 | CA/CL = current ratio<br>61,000/55,180 = 1.11 |

8. GAAP requires accounts receivable to be reported on the balance sheet at the net realizable value of the receivables. Net realizable value is found by deducting an allowance for doubtful accounts from the gross amount of accounts receivable.
9. GAC uses the direct write-off method for accounting for bad debts. Under this method, the bad debts expense account shows only the actual losses from uncollectible accounts. Although this method is simple and reports facts instead of estimates, it fails to match expenses with revenues and does not report receivables at their net realizable value. The direct write-off method is typically used for tax purposes and when an uncollectible amount is immaterial.

10. The direct write-off method was acceptable for GAC in the past since most of its retail customers were reliable and paid within the 30-day collection period. Uncollectible accounts were rare and immaterial; therefore writing off these accounts as they occurred was appropriate. Now however, Nicki is doing business with less reliable retailers who are struggling to pay within the 30-day collection period. The number of days to collect receivables has increased since 2013. Uncollectible accounts are much more material this year and will require an alternative method that will estimate bad debts.
11. GAC could use the allowance method as an alternative to the direct write-off method. In doing so, Nicki would have the option to record bad debts as a percentage of credit sales or as a percentage of accounts receivable. The allowance method is by far the better option for Nicki at this point in the life of the business. Nicki expects a significant portion of the accounts receivable from retailers to be uncollectible. Since this amount is material, the allowance method must be used to estimate bad debts expense for the year.
12. Nicki should use the balance sheet approach under the allowance method. This approach is beneficial in that it will provide Nicki with a more accurate measure of the net realizable value of GAC's accounts receivable in 2014. Also, Nicki has estimated an amount of accounts receivable that will be uncollectible. The balance sheet approach will be even more accurate thanks to this estimate.

13. Changing to the allowance method would decrease the net realizable value of GAC's 2014 accounts receivable balance and increase the bad debts expense for the year. The previous balance of $32,500 will decrease by $3000, or the amount Nicki estimated would be uncollectible. The net realizable value of GAC's accounts receivable is now $29,500. The effects of this method on the company's current ratio are shown below.

| Current ratio: Direct write-off method | Current ratio: Allowance method |
|---|---|
| CA/CL = current ratio<br>61,000/55,180 = 1.11 | CA/CL = current ratio<br>58,000/55,180 = 1.05 |

14. GAC reports sales returns in the month that goods are returned by retail customers. This method would be acceptable in previous years when retailers were selling most of GAC's shirts. The amount of sales returns was immaterial in these years, and reporting sales returns when they are actually returned would be acceptable.
15. The circumstances surrounding sales returned have drastically changed for GAC in 2014. The decision to sell damaged shirts to retailers has decreased demand for the shirts in the retail stores. Nicki estimates that $15,000 in shirts has yet to be sold by retailers at year-end. This material amount will be returned to the GAC

and must be accounted for according to GAAP

16. GAAP recommends that GAC create an allowance for sales returns that will offset any returns that the company receives. This method further provides an accurate representation of the true net realizable value of the 2014 accounts receivable.
17. GAC should make it a priority to consider this alternative and adjust its financial statements according to GAAP. Sales returns are important to external users because they affect both revenue and current assets. Without recognizing an allowance for sales returns, accounts receivable and current assets would be overstated for the year.
18. GAC should account for sales returns using an allowance for sales returns account. This account contra revenue account will be debited by the amount of the return and credited to accounts receivable to cancel out the expected payment. Accounts receivable will then be stated at the net realizable value.
19. The allowance method for sales returns will decrease accounts receivable by $15,000 along with net sales. The new net realizable value for accounts receivable will now be $14,500. Sales returns will also increase inventory by the $7,752 cost of goods sold. The effects of these changes on GAC's current ratio are shown below.

| Current ratio: Prior to allowance for sales returns | Current ratio: allowance for sales returns |
|---|---|
| CA/CL = current ratio<br>58,000/55,180 = 1.05 | CA/CL = current ratio<br>50,752/55,180 = 0.92 |

20. GAAP requires inventory to be recorded at the lower of cost or market. This provides external users with a fair and conservative measure of the value of the company's inventory.
21. GAC has been reporting its inventory at the lower of cost or market using the weighted average cost method. This method is appropriate in all situations according to GAAP, and is therefore the proper valuation method for the company to use.
22. This approach will always be acceptable under GAAP, however it is important for GAC to reconsider its inventory after it was damaged this year. Days to sell inventory has increased in 2014, meaning the company has cost in inventory that is not generating sales. This is largely due to the decision to sell damaged goods to retailers.
23. After selling damaged goods to retailers, GAC must consider selling the damaged shirts below cost in order to recoup some of the cost to produce the shirts. The 2014 gross profit percentage of 48.32 percent indicates that over half of net sales are tied up in cost. GAC is only profiting on just over 48 percent of its sales revenue.
24. GAC should create an allowance to recognize a loss in the value of inventory due to water damage. The company should not be selling damaged inventory, and the allowance will allow the company to recognize the true cost of inventory on the balance sheet.

25. The proposed change would create a balance of $12,250 in the allowance for obsolete inventory account, reducing inventory and current assets on the balance sheet. Without this adjustment, inventory would be overstated for 2014. The effects of this change on GAC's current ratio are shown below.

| Current ratio: Prior to allowance for obsolete inventory | Current ratio: allowance for obsolete inventory |
|---|---|
| CA/CL = current ratio<br>50,752/55,180 = 0.92 | CA/CL = current ratio<br>38,502/55,180 = 0.70 |

26. After adjusting for all of the proposed changes in GAC's balance sheet, the effects on the company's current ratio can be observed in the four graphs above. GAC's current ratio decreased by 0.65, from 1.35 to 0.70.
27. In order for GAC to return to the required current ratio of 1.0, Nicki would have to contribute $16,678 of additional equity. Correction of the mistakes made in the financial statements brings to light the company's inability to pay off its short-term liabilities. At this point, the company has shown poor liquidity and efficiency and will need to implement the proposed changes in order to begin the process of increasing its current ratio.
28. The first step for Nicki is to correct her financial statements and reconsider the methods by which she valuates her receivables and inventory. She needs to pay close attention to her balance sheet accounts, particularly how they affect the current ratio. At this point, it is likely that she will be required by the bank to hire an external auditor since the current ratio has fallen below 1.0.

The next step for Nicki is to reevaluate the goals of her business. Although it is important to progress in the market and avoid becoming stale, Nicki cannot afford to alienate her conservative customer base. These reliable retail stores have proven their credit worthiness over the years and will increase the net realizable value of GAC's accounts receivable. This will then increase her current ratio and efficiency in the long run. Nick must also be consistent in the product that she sells in order to increase sales prices. Damaged goods should never be sold to retailers and should certainly never be included in inventory.

As seen in the case of GAC, preparing correct financial statements according to GAAP is essential for internal and external users. Without the corrections made above, GAC would have overstated current assets and understated current liabilities, leading to an incorrect current ratio. This would lead users of financial information to believe that the company was in a much better financial position than it actually is.

Presented below is a corrected partial balance sheet for 2014 that summarizes all of the adjustments made to current assets and liabilities, and highlights the effects of these changes on the current ratio.

Graphic Apparel Corporation
Balance Sheet (Current Assets and Current Liabilities)
August 31, 2014

| | | 2014 |
|---|---|---|
| **Current Assets**: | | |
| Cash and Cash Equivalents | | $4,000 |
| Accounts Receivable | 32,500 | |
| Less: Allowance for doubtful accounts | (3,000) | |
| Less: Allowance for sales returns | (15,000) | 14,500 |
| Inventory | 24,500 | |
| Add: Returns | 7,752 | |
| Less: Allowance for obsolete inventory | (12,250) | 20,002 |
| Total Current Assets | | $38,502 |
| | | |
| **Current Liabilities** | | |
| Accounts Payable | | 36,100 |
| Accrued Liabilities | | 8,680 |
| Unearned Revenue | | 10,000 |
| Taxes Payable | | 400 |
| Total Current Liabilities | | $55,180 |

Current ratio = Current assets/Current liabilities

GAC current ratio 2014: 38,502/55,180 = 0.70

*Table 5.1 Graphic Apparel Balance Sheet*

## CASE 6: DEPRECIATION EXPENSE

Depreciation and its application to tangible assets is an essential element in accounting for the proper cost of assets. Many factors play a role in decreasing the value of a long-term asset from its original historical cost to its current fair value. Although it is difficult to determine this value, the implementation of depreciation as a means of cost allocation is an effective way to expense the reduction in the value of an asset. The following case study first examines three airline companies that employ different estimations of the useful life of an asset in order to determine depreciation expense for their aircraft. The estimates used to calculate depreciation will be highlighted along with the effects of depreciation on the book value and sale of the asset. The second study examines a case in which depreciation is manipulated to improperly manage the earnings of a company.

1. The following table illustrates the methods of depreciation for three airline companies. Each company purchases an identical Boeing 757 for the same price. However, the estimates used to measure depreciation expense have a significant effect on the book value and gain (loss) on the sale of the aircraft.

**Airline Depreciation Analysis**

| | Northwest | Delta | United |
|---|---|---|---|
| Book Value January 1, 2005 | $75,000,000 | $75,000,000 | $75,000,000 |
| Residual | 3,750,000 | 3,750,000 | 3,750,000 |
| Depreciable amount | 71,250,000 | 71,250,000 | 71,250,000 |
| Useful life | 15 | 20 | 28 |
| Annual depreciation | 4,750,000 | 3,562,500 | 2,544,643 |
| Accumulated Depreciation at December 31, 2008 | 19,000,000 | 14,250,000 | 10,178,572 |
| Book Value at December 31, 2008 | 56,000,000 | 60,750,000 | 64,821,428 |
| Sale Price I | 55,000,000 | 60,000,000 | 65,000,000 |
| Gain (Loss) on Sale I | -1,000,000 | -750,000 | 178,572 |
| Sale Price II | 60,000,000 | 60,000,000 | 60,000,000 |
| Gain (Loss) on Sale II | 4,000,000 | -750,000 | -4,821,428 |

*Table 6.1 Airline Depreciation Analysis*

2. Each airline uses a different estimated useful life for the aircraft. This may appear to be a cause for concern; however, different company practices can lead to different estimations of the useful life of the same asset. For example, suppose United carries more aircraft in its fleet than Northwest or Delta. The company could therefore estimate that its aircraft experience less use over the course of time since the workload is spread among more planes. Since the aircraft will experience less wear and tear, the useful life could be longer than that for the other companies. Another reason for a difference in useful life could be company policy concerning the replacement of aircraft. Suppose that Northwest prefers planes that are on the cutting edge of technological development. Instead of keeping older planes for long periods of time, the company finds the planes

inadequate once new technology enters the market. In this case, Northwest would report a lower useful life than Delta or United.

3. With regards to sales price, Sale Price I is significantly more realistic than Sale Price II. Although the three planes bought by the different airlines are identical upon original purchase, much has happened to these aircraft over the course of their use. Each company will handle maintenance and care in different ways. The planes could experience different amounts of flight time based on company preference, leading one plane to have more wear and tear than another. Many other factors affect the condition of the plane at the point of sale. For this reason, the fair market value and sales price would be different for each plane.

Garbage Trucks

1. The charges against Waste Management include a broad and systematic scheme to falsify earnings by manipulating financial results. The scheme was implemented by top-level executives who falsified results in order to meet earnings targets and reap performance-based bonuses. A significant portion of the fraud involved the treatment of expenses related to depreciation on the company's garbage trucks and other equipment. The company abused the use of estimates to determine the amount of depreciation. For example, the company manipulated both the salvage values and useful lives of their trucks, without any supported reasoning, in order to diminish depreciation expenses and inflate net income. Many assets were overvalued and expenses were improperly capitalized to assets. Waste Management also employed the undisclosed practice of "netting" to wipe away around $490 million in current expenses and prior period misstatements.

Top management went to great length to cover up the fraud, shredding documents proving that the company overstated the salvage values and useful lives of its equipment.

2. The methods used to determine the amount of depreciation expense for a long-term asset include many estimates that can never be exact. However, it is expected that company management act in a systematic and rational manner in order to determine the value of these estimates and the amount of depreciation expense needed to report the proper book value of the asset. In the case of Waste Management, the opposite was done. Top management greatly overstated both the salvage values and the estimated useful lives of its trucks and other equipment. This led to a much smaller amount of depreciation expense, thus increasing earnings for the company. No supporting data was ever issued providing a proper reasoning for the increase in these estimates. The changes were secretively made late in the fourth quarter of each year, and stockholders were never notified of these changes. All of these actions deviate from the requirements of GAAP.
3. Managers of Waste Management had clear incentive to manage the earnings of the company. Job security as well as performance-based bonuses were all factors that affected the decision to manage earnings. Pre-determined earnings targets were put in place to assess the financial stability of the company, and managers began to manipulate earnings each year in order to save their jobs and earn bonuses for high performance. With each passing day, the scheme grew larger and it became more difficult for the managers to continue managing the earnings and covering up prior period misstatements.

4. Arthur Andersen was the external auditor for Waste Management during the time when the fraud took place. An investigation by the Securities and Exchange Commission found that Andersen's audit reports on the financial statements of Waste Management were false and misleading. The firm released "clean" opinions of the company's financial statements, which overstated pre-tax income by over $1 billion. Andersen settled a civil injunctive action and administrative proceedings that found that the firm engaged in improper conduct. In the settlement, Andersen agreed to the first antifraud injunction in over 20 years and the largest ever civil penalty of $7 million. Andersen agreed to these terms as well as a censure under the SEC's rules of practice. Four partners also settled and faced SEC sanctions.

Estimations prove to be a necessary limitation to proper accounting practices. Although it is difficult to determine the exact amount of depreciation expense to record for an asset, there are significant implications for a company's financial statements when the estimates are not taken conservatively. It is important for a company to expense depreciable assets in a systematic and rational manner in order to properly reflect the true book value of a long-term asset. When the proper methods are applied, a company is in accordance with GAAP and on the road to financial stability.

## CASE 7: GAAP AND IFRS

The following questions pertain to a manufacturing company (Construct) and its acquisition of a tract of property held by BigMix, Inc. The property itself faced potential environmental liabilities at the time of purchase and was the subject of a remedial investigation and feasibility study after an EPA investigation. Each question analyzes a different aspect of Construct's liability with regards to the property. The Accounting Standards Codification will be used to analyze and answer these questions according to both US GAAP and IFRS.

1. In 2007, at the time of purchase, should Construct record a liability for environmental liabilities? If so, how much?

   GAAP

   According to FASB Codification 410-30-25-1, two conditions must be met to accrue a liability. Information must be available before financial statements are issued, and the amount of the loss must be reasonably estimable. In the case of Construct, at the date of purchase, it is not probable that an environmental hazard is present. Therefore, no loss contingency can be reasonably estimated at this time. Construct should not record a liability at the time of purchase.

IFRS

According to IAS 37, a loss must be probable to be recognized. Provisions for losses must also be reliably estimable to be recognized. Construct has no knowledge of future events to indicate that an environmental hazard is probable; therefore, no loss provision can be reliably estimated. Construct should not record a liability at the time of purchase.

2. In 2008, should the company record any liability due to BigMix filing for Chapter 11? If so, how much?

   GAAP

   FASB Codification 450-20-25-2 provides for the creation of a liability of the amount that can be reasonably estimated. Due to the fact that the purchase of the property has already taken place, no loss is expected for Construct with regards to the property. Also, since no environmental hazard can be seen as probable, the company cannot assume any remediation from BigMix. Construct should not record a liability in this case.

   IFRS

   IAS 37 advises the recognition of loss provisions when the amount is reliably estimable. Since the purchase of the property has already taken place, and no remediation is probable, no loss can be expected from the bankruptcy of BigMix. Construct should not record a liability in this case.

3. In 2009, should the company record any liability for the potential environmental liability? If so, how much?

GAAP

A stated in FASB Codification 410-30-25-1 and 25-2, a loss contingency must be probable and reasonably estimable. Construct hired an independent environmental agency to determine both the probability of loss and the estimable amount of penalty liabilities, including legal fees. The estimations of this agency are both probable and reasonable; therefore, Construct should accrue a liability of $250,000.

IFRS

In accordance with IAS 37, the loss must be probable (greater than 50 percent chance of occurring) and reliably estimable. The hired agency determines the probability penalty assessment to be 60 percent for Construct. The likelihood of penalty liabilities is probable and reliably estimable. Construct should accrue a liability of $250,000.

4. In 2010, should the company record any liability for the potential environmental remediation? If so, how much?

GAAP

FASB Codification 410-30-25 provides for the recognition of a liability when an environmental remediation takes place and the company is the present owner of the site (25-3). Since BigMix is not in the financial position necessary to undertake the remedial investigation and feasibility study (RI/FS), Construct has been assigned this obligation. Due to the fact that a claim by the EPA has been asserted and it is probable that the outcome of the investigation will be unfavorable, an environmental remediation liability is

necessary to establish Construct's obligation to the investigation (25-4). Legal fees and total cost of the RI/FS are reasonably estimated to be $100,000 and $300,000, respectively. Construct should record a liability of $400,000 for the environmental remediation obligation.

IFRS

IAS 37.36 provides for a remediation provision in the amount that represents the best estimate of the expenditure required to settle the present obligation. The provision is reliably estimable and should therefore create a liability for the total amount of the remediation. Construct should record a liability of $400,000 for the environmental remediation obligation.

5. In 2011, should the company record any additional liability for the potential environmental remediation?

   GAAP

   FASB Codification 410-30-30-2 lists five categories of potentially responsible parties. Construct is classified as a participating potentially responsible party. Construct must therefore participate in all aspects of the remediation process and is obligated to incur the costs of the remediation plan (430-30-25-11). Construct should record an additional liability up to the estimated $500,000. This amount represents the difference between Construct's expected $1.5 million cost of the remediation plan and the $1 million settlement with BigMix that is highly probable of occurring (75 percent).

IFRS

IAS recognizes the need for a provision in the case of a present obligation. The remediation implementation plan will cost Construct $500,000 after settling with BigMix. Construct should therefore record a liability up to this amount to address the costs of the remediation plan.

6. In 2012, should the company record any gain contingency/contingent asset for the potential settlement?

GAAP

FASB Codification 410-30-25 allows for the recognition of a loss contingency due to the costs of a remediation plan. However, Construct should not recognize a gain contingency resulting from a possible future settlement. That is amount could be used in the future to recover some of the loss related to the remediation costs.

IFRS

IAS 37 allows for the recognition of a loss contingency related to the costs of a remediation plan. Construct should not recognize a gain contingency from future settlement. The gain does not at present recover any of Construct's obligations in relation to the remediation plan.

CASE 8: LONG-TERM DEBT

A.

i. The difference in Rite Aid's secured and unsecured debt lies in the existence or absence of some form of pledged collateral. An example of such collateral would be claims on real estate for mortgage bonds. In the case of Rite Aid, much of the notes are secured by a senior lien on inventory, accounts receivable, and prescription files of the subsidiary guarantors. Unsecured debt is not backed by any pledge of collateral. An example of this form of debt would be debenture bonds and junk bonds. Junk bonds tend to be very risky and therefore pay a significantly higher interest rate. Rite Aid holds unsecured debt that is effectively junior to the company's secured debt. These notes are, however, convertible into shares of the company's common stock.

ii. As evident in note eleven, Rite Aid holds two types of unsecured debt, guaranteed unsecured debt and unsecured unguaranteed debt. Guaranteed debt is backed by a third party who ensures payment of principal and interest in case the issuer defaults on the loan or simply cannot pay. In the case of this company, Rite Aid Corporation is a holding company with no direct operations. It acts as a third party to guarantee the payment of its subsidiaries that are issuing the debt. A senior secured credit facility is

maintained by Rite Aid to directly provide for events of default. Due to the increased security of guaranteed debt, these notes tend to have lower interest rates than unguaranteed debt.

iii. Three common terms can be found in note eleven to describe the company's notes. The first term, "senior," is used to indicate the priority level of repayment in the event of bankruptcy or liquidation. Senior notes obviously take precedence over junior notes and must be repaid during bankruptcy. These notes tend to be secure due to their high priority status for liquidation. As mentioned above, the increased level of security brings lower interest rates than junior notes. The second term, "fixed-rate," describes a note that pays the same amount of interest over its entire life. The benefit of fixed-rate notes is that investors know for certain the amount of interest they will earn. Note holders can precisely determine their return on the investment. Examples could be corporate bonds or municipal bonds. The final term is "convertible." These notes can be converted into other securities of the corporation for a specified time after issuance. For example, in note eleven, Rite Aid issued $158,000 of 8.5 percent convertible notes due May 2015 (see pg. 88). These notes are convertible, at the option of the holder, into shares of the company's common stock. The proceeds of these notes were then used to redeem some of the company's older debt.

iv. Rite Aid has many types of unsecured, secured, guaranteed, unguaranteed, and convertible notes to name a few. The company issues different types

of notes in order to maintain a secure debt structure and provide for security and redemption of older debt. Interest rates vary for these notes due to their relative security, as previously mentioned. Different types of debt also appeal to a wide variety of investors, generating a high amount of capital from many sources.

B.

i. As of February 27, 2010, Rite Aid holds total debt in the amount of $6,370,899. This amount is specifically broken down and reported in note eleven on page 83. Of this amount, $51,502 is due within the coming fiscal year since it compromises all current maturities of long-term debt and lease financing obligations. The total amount of debt can be found in three specific places on the company's balance sheet. The first is the $51,502 of current maturities of long-term debt and lease financing obligations. The second is the $6,185,633 of long-term debt, less current maturities. The final component is the $133,764 of lease financing obligations, less current maturities. These three amounts reconcile the total debt of $6,370,899 found in note eleven.

C.

i. The face value of the 7.5 percent senior secured notes can be found in note eleven to the financial statements. The face value is $500,000. We know this is the face value because no unamortized discount or premium is listed in the notes. When no discount or premium exists, the market interest rate

is equal to the face rate of the notes. Therefore the market value, or carrying value, is equal to the face value of $500,000.

ii. The journal entry to record the issuance of the 7.5 percent senior secured notes is as follows:

| | | |
|---|---|---|
| Cash | 500,000 | |
| Notes Payable | | 500,000 |

iii. The journal entry to record annual interest expense is as follows:

| | | |
|---|---|---|
| Interest Expense | 37,500 | |
| Cash | | 37,500 |

The total amount of interest expense is found my multiplying the face value of the note times the stated rate of interest ($500,000 x 7.5% = $37,500).

iv. The journal entry at the date of maturity is as follows:

| | | |
|---|---|---|
| Notes Payable | 500,000 | |
| Cash | | 500,000 |

D.

i. The face value of the 9.375 percent senior notes can be found in note 11 to the financial statements. The face value is $410,000. At February 27, 2010, the carrying value of these notes is $405,951. The carrying amount can be found by reducing the face value by the remaining unamortized discount of the note ($410,000 - $4,049 = $405,951). The face value and carrying value differ due to the existence of the unamortized discount. The discount exists because market interest rates were higher than the stated rate of interest on these notes.

ii. During fiscal 2009, Rite Aid paid total cash interest of $38,438 on these notes. This amount is computed by multiplying the face value times the stated rate of interest ($410,000 x 9.375% = $38,438).

iii. The total amount of interest expense recorded by Rite Aid on these notes for the year-end February 27, 2010 is $39,143. This amount is the sum of cash interest paid plus the annual amount of discount amortized ($38,438 + $705 = $39,143). The $705 represents the noncash portion of interest expense.

iv. The journal entry to record interest expense on these notes is as follows:

| Account | Debit | Credit |
|---|---|---|
| Interest Expense | 39,143 | |
| Discount on Notes Payable | | 705 |
| Cash | | 38,438 |

v. Under the effective-interest method of amortizing discounts and premiums, interest expense is computed by multiplying the beginning of the period carrying amount of the note times the market rate of interest. In this case, we were able to determine interest expense without the market rate by using the change in unamortized discount. In order to find the market rate, we must alter this equation by dividing interest expense by the beginning of the period carrying amount of the note. The following computation arrives at a market rate of interest of 9.66 percent:

$39,143 / $405,246 = 9.66%

E.

i. The journal entry made on June 30, 2009 to record issuance of the 7.5 percent senior secured notes is as follows:

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

The cash received represents the present value of the principal plus interest on these notes. The present value is issued at 98.2 percent of the face value, or $402,620. The remaining 1.8 percent is the total unamortized discount of the note at the issue date, or $7,380.

ii. These notes were issued at an effective annual rate of interest of 10.1212 percent. This market rate can be calculated since we have both the present

and future values of the notes along with the number of years outstanding (7) and the annual cash interest payment ($39,975).

iii.

| Schedule of Bond Discount Amortization (1) | | | | | |
|---|---|---|---|---|---|
| Date | Interest Payment | Interest Expense | Bond Discount Amortization | Net Book Value of Debt | Effective Interest Rate |
| 30-Jun-09 | $0 | $0 | $0 | $402,620 | 10.1212% |
| 30-Jun-10 | $39,975 | $40,750 | $775 | $403,395 | 10.1212% |
| 30-Jun-11 | $39,975 | $40,828 | $853 | $404,248 | 10.1212% |
| 30-Jun-12 | $39,975 | $40,915 | $940 | $405,188 | 10.1212% |
| 30-Jun-13 | $39,975 | $41,010 | $1,035 | $406,223 | 10.1212% |
| 30-Jun-14 | $39,975 | $41,115 | $1,140 | $407,363 | 10.1212% |
| 30-Jun-15 | $39,975 | $41,230 | $1,255 | $408,618 | 10.1212% |
| 30-Jun-16 | $39,975 | $41,357 | $1,382 | $410,000 | 10.1212% |

*Table 8.1 Schedule of Bond Discount Amortization (1)*

iv. The journal entry on February 27, 2010 to accrue interest expense is as follows:

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

The amounts in the journal entry above can be found by multiplying the yearly amounts times two thirds since we are accruing two thirds of the annual amount of interest.

v. The net book value of these notes at February 27, 2010 is $403,137. This represents the increase in carrying value by the partial amount of discount amortized from June 30, 2009 to February 27, 2010 ($402,620 + $517 = $403,137). The yearly net book value will increase to $403,395 by June 30, 2010.

vi.

| Schedule of Bond Discount Amortization (2) | | | | | |
|---|---|---|---|---|---|
| Date | Interest Payment | Interest Expense | Bond Discount Amortization | Net Book Value of Debt | Straight-Line Interest Rate |
| 30-Jun-09 | $0 | $0 | $0 | $402,620 | 0.0000% |
| 30-Jun-10 | $39,975 | $41,029 | $1,054 | $403,674 | 10.1905% |
| 30-Jun-11 | $39,975 | $41,029 | $1,054 | $404,728 | 10.1639% |
| 30-Jun-12 | $39,975 | $41,029 | $1,054 | $405,782 | 10.1374% |
| 30-Jun-13 | $39,975 | $41,029 | $1,054 | $406,836 | 10.1111% |
| 30-Jun-14 | $39,975 | $41,029 | $1,054 | $407,890 | 10.0849% |
| 30-Jun-15 | $39,975 | $41,029 | $1,054 | $408,944 | 10.0588% |
| 30-Jun-16 | $39,975 | $41,029 | $1,054 | $409,998 | 10.0329% |

*Table 8.2 Schedule of Bond Discount Amortization (2)*

As the table illustrates above, the straight-line method amortizes the same amount of the discount over each of the seven periods. On June 30, 2016, the net book value of the debt is equal to the original face value of the note, $410,000 (off due to rounding).

vii. A clear pattern can be seen in interest expense under the effective-interest method. Due to the increase in carrying value under a discount amortization, interest expense systematically increases over the life of the note. Under the straight-line method, interest expense remains constant, and relatively high, throughout the life of the note. For this reason, the only material differences are in the first two years of the note when interest expense is lower under the effective-interest method.

F.

i. The journal entry to record the repurchase the 9.5 percent senior notes due June 2017 is as follows:

| Account | Debit | Credit |
|---|---|---|
| Notes Payable | 810,000 | |
| Discount on Notes Payable | | 8,481 |
| Gain on Repurchase | | 3,750 |
| Cash | | 797,769 |

ii. The journal entry above shows that by repurchasing the 9.5 percent notes, Rite Aid did not have to pay in cash the full $810,000 face value of the note. This is due to the existence of the discount. When a note is sold at a

discount, it favors the issuer to repurchase early in order to pay less cash for the note.

iii. At the time of repurchase, the market rate of interest is higher than the 9.5 percent coupon rate on the notes. However, it is now lower than the effective rate at the date of issuance.

G. Companies like Rite Aid typically issue convertible notes to take advantage of the lower interest rates that these notes offer. This lowers the amount of cash that companies will have to pay for their capital. Converting these notes would increase stockholders' equity on the balance sheet while decreasing long-term debt. This leads to a second benefit of convertible notes. The conversion lowers the debt obligations of the company, turning it into stockholder equity.

H.

i.

| Rite Aid Analysis | | | | |
|---|---|---|---|---|
| Ratio | Definition | Industry Average | Rite Aid FY2009 | Rite Aid FY2008 |
| 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% | 69.67% |
| Long-term debt to equity | Total long-term debt/Total shareholders' 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 | 0.07x | -4.41x |

*Table 8.3 Rite Aid Analysis and Computations*

| Analysis Computations | | |
|---|---|---|
| Ratio | Computations for FY2009 | Computations for Fy2008 |
| Common-size debt | $9,723,462 / 8,049,911 = 120.79% | $9,526,192 / 8,326,540 = 114.41% |
| Common-size interest expense | $515,763 / $25,669,117 = 2.01% | $477,627 / $26,289,268 = 1.82% |
| Debt to assets | $6,185,633 / 8,049,911 = 76.84% | $5,801,230 / $8,326,540 = 69.67% |
| Long-term debt to equity | $6,185,633 / -$1,673,551 = -3.70 | $5,801,230 / -$1,199,652 = -4.84 |
| Proportion of long-term debt due in one year | $51,502 / $6,185,633 = 0.83% | $40,683 / $5,801,230 = 0.70% |
| Times-interest-earned (interest coverage) | (-479,918 + $515,763) / $515,763 = 0.070x | (-$2,582,794 + $477,627) / $477,627 = -4.41x |

ii. Rite Aid compares relatively poorly to the industry as a whole. A common theme lies in the company's excessive debt compared to its assets. In both FY2008 and FY2009, total liabilities exceed total assets. A huge portion of these liabilities are long-term debt, as can be seen in the debt to assets ratio and long-term debt to equity ratio.

iii. Rite Aid is having trouble meeting its long-term commitments at this point. The company has assumed a large amount of long-term debt and is forced to refinance that debt by issuing new notes. The company's credit

rating will suffer in the coming years due to this unfortunate cycle and the company will be forced to pay higher interest rates on its debt.

iv. Current ratios are a good way to better assess the solvency of a company like Rite Aid. Another important ratio in this case is a company's interest coverage ratio. With high amounts of debt, it is important for Rite Aid to be able to meet its interest obligations. A high interest coverage ratio signals that a company is able to cover its interest expense multiple times over.

I. Based on the financial statements and analysis of Rite Aid, the company must be issued a credit rating of "CCC." Rite Aid is currently vulnerable and has the potential to default on its notes if unfavorable conditions befall the company. The company lags on all industry averages and is weighted down by large amounts of debt. During FY2009, long-term debt was almost 80 percent of total assets and total liabilities were over 120 percent of total assets. Rite Aid must begin to restructure its focus of accumulating debt into paying off its obligations and restoring financial leverage to the company.

This case involving Rite Aid Corporation provides a characterization of multiple types of debt and the many procedures involved to reconcile that debt over the course of its life. Although the assumption of debt is an important aspect of a company's capital structure, the case proves that it must be strategically maintained in order to control debt size compared to assets and equity as a whole. When debt is a large part of a company's capital structure, it becomes more

difficult to repay that debt and hold low market interest rates. A balanced capital structure signals a healthy company that has the ability to raise multiple forms of capital at favorable rates.

## CASE 9: STOCKHOLDERS' EQUITY

A. The following information pertains to the common shares of Merck & Co., Inc.

i. Merck is authorized to issue 5,400,000,000 shares of common stock. This number can be found in the Liabilities and Stockholders' Equity section of the company's balance sheet.

ii. As of December 31, 2007, Merck has actually issued 2,983,508,675 shares of common stock. This number can also be found in the Liabilities and Stockholders' Equity section of the balance sheet.

iii. The dollar value of common stock reported on the balance sheet is found by multiplying the number of shares issued times the par value of the common stock. As of December 31, 2007, the dollar value of common stock reported on the balance sheet is $29,835,086.75 (2,983,508,675 x $0.01 = $29,835,086.75).

iv. Common shares in the amount of 811,005,791 are held in treasury as of December 31, 2007.

v. Common shares outstanding amount to 2,172,502,884. This amount is calculated by deducting the number of shares held in treasury from the number of shares issued.

vi. The total market capitalization for Merck as of December 31, 2007 is $125,157,891,147. Total market capitalization is found my multiplying the

total number of shares outstanding times the market value per share (2,172,502,884 x $57.61 = $125,157,891,147).

B. The following information pertains to the ordinary shares of GlaxoSmithKline plc.

   i. GlaxoSmithKline is authorized to issue 10,000,000,000 ordinary shares. This number is found in the share capital notes to the financial statements.

   ii. GlaxoSmithKline has actually issued 6,012,587,026 shares as of December 31, 2007. This number is also found in the share capital notes to the financial statements.

   iii. Ordinary shares in free issue as of December 31, 2007 amount to 5,373,862,962. Free issue holds the same meaning as outstanding.

   iv. As of December 31, 2007, 504,194,158 common shares are held in treasury. This information is found in note 33 to the financial statements.

   v. The term "share capital" refers to the value of shares issued at their par value. The term "share premium account" refers to the value of the shares paid above their par value. Under U.S. GAAP, Merck refers to these accounts as "common stock" and "paid-in capital in excess of par on common stock."

C. Companies pay dividends as a reward to shareholders for their investment in the company. Dividends are also paid as an incentive for others to invest in the company. Consistent dividend payments signal to the market that the company is healthy and generating positive returns on its shareholders' investments.

D. Companies typically repurchase shares in order to increase their earnings per share ratio, an extremely important number for investors. When a company takes shares out of the market, earnings are distributed over fewer numbers of shares. Essentially, the earnings of each share are increased even if profits remain the same.

E. The following journal entry summarizes Merck's common dividend activity in 2007:

| Account | Debit | Credit |
|---|---|---|
| Dividends Declared | 3,310,700,000 | |
| Cash | | 3,307,300,000 |
| Dividends payable | | 3,400,000 |

F. Journal entries and dividends for GlaxoSmithKline

   i. The following journal entry summarizes GlaxoSmithKline's payment of ordinary dividends to shareholders:

| Account | Debit | Credit |
|---|---|---|
| Dividends Declared | 2,793,000,000 | |
| Cash | | 2,793,000,000 |

   ii. The following chart reconciles total dividends declared for 2007 (note 16) with dividends paid to shareholders in the consolidated cash flow statement.

| Interim Period | Dividends |
| --- | --- |
| 2006-Third Interim | £671,000,000.00 |
| 2006-Fourth Interim | £785,000,000.00 |
| 2007-First Interim | £670,000,000.00 |
| 2007-Second Interim | £667,000,000.00 |
| Total | £2,793,000,000.00 |

G. The following information pertains to Merck's repurchase of common shares.

i. Merck uses the cost method to account for its treasury stock. Under this method, the actual cost of purchase is recorded for treasury stock instead of using the par value.

ii. According to note 11 of the financial statements, Merck repurchased 26,500,000 shares in 2007.

iii. In total, Merck paid $1,429,700,000 to buy back its stock during 2007. Per share, Merck paid $53.95 ($1,429,700,000 / 26,500,000 = $53.95). This transaction represents a cash flow from financing activities in the statement of cash flows.

iv. Merck does not disclose treasury stock as an asset because the treasury stock account is a contra equity account. It represents a decrease in stockholders' equity. Unlike assets, treasury stock does not provide any future economic benefit

H. The following information pertains to GlaxoSmithKline's repurchase of ordinary shares.

i. During 2007, GlaxoSmithKline repurchased 285,034,000 shares. Of those shares, 269,000,000 were actually held in treasury and 16,000,000 were cancelled.

ii. The company paid an average of £13.16 for each share repurchased in 2007 (£3,750,000,000 / 285,000,000).

iii. "Movements in equity," note 11 to the financial statements, is comparable to "Statement of Stockholders' Equity" under U.S. GAAP.

The following journal entry summarizes GlaxoSmithKline's repurchase of shares in 2007:

| | | |
|---|---|---|
| Retained Earnings | 3,750,000,000 | |
| Cash | | 3,750,000,000 |

Under U.S. GAAP, a debit is made to the treasury stock account, followed by a credit to cash.

I. The following chart performs an analysis and comparison between Merck and GlaxoSmithKline.

**Merck and Glaxo Analysis and Comparison**

| | Merck ($) | | Glaxo (£) |
|---|---|---|---|
| | 2007 | 2006 | 2007 |
| Dividends paid | $3,307,300,000.00 | $3,322,600,000.00 | £2,793,000,000.00 |
| Shares outstanding | $2,172,502,884.00 | $2,167,785,445.00 | £5,373,862,962.00 |
| Net Income | $3,275,400,000.00 | $4,433,800,000.00 | £6,134,000,000.00 |
| Total Assets | $48,350,700,000.00 | $44,569,800,000.00 | £31,003,000,000.00 |
| Operating cash flows | $6,999,200,000.00 | $6,765,200,000.00 | £6,161,000,000.00 |
| 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) | 1.01 | 0.75 | 0.46 |
| Dividends to total assets | 0.07 | 0.07 | 0.09 |
| Dividends to operating cash flows | 0.47 | 0.49 | 0.45 |

*Table 8.4 Merck and Glaxo Analysis and Comparison*

Merck slightly decreased the amount of dividends paid in 2007 compared to 2006. The number of shares outstanding was slightly increased. Dividends per share remained almost identical, a good sign for investors in the company. Dividend yield decreased significantly between the two years. This is due to the large increase in stock price from

2006 to 2007. The most significant event regarding Merck's dividends is that the company paid out more in dividends than net income earned in 2007.

Merck and GlaxoSmithKline are relatively similar companies. Merck tends to pay higher dividends, while GlaxoSmithKline has more shares outstanding. Dividends per share and dividend yield are much higher for Merck, and Merck is in a trend of paying a large amount of dividends compared to its yearly net income. The final two comparisons regarding dividends to total assets and dividends to operating cash flows are similar for both companies. Merck and GlaxoSmithKline are paying out consistent dividends each year, proving that the companies are financially healthy. Investors are receiving good signals from these financial statements and will continue to invest in both companies in the near future.

This case illustrates the importance of analyzing shareholders' equity to determine the financial stability of a company. Investors use the financial statements and analysis like the chart above to determine if a company has the ability to generate consistent dividends in future periods. When a company begins to pay strong dividends, the market responds with increased investment and a higher stock price for the company.

## CASE 10: SECURITIES

A. Trading Securities

i. Trading securities are a form of debt investment in which securities are bought and held for sale in the near term. The primary goal of trading securities is to generate income on short-term price differences. Typically, companies hold these securities for less than three months. State Street Corporation, a financial institution, labels these securities as "Trading account assets." Trading securities are reported at fair market value.

ii. The following entry is prepared to record $1 of dividends from trading securities:

| Account | Debit | Credit |
| --- | --- | --- |
| Cash | 1 | |
| Dividend revenue | | 1 |

The following entry is prepared to record $1 of interest received from trading securities:

| Account | Debit | Credit |
| --- | --- | --- |
| Cash | 1 | |
| Interest revenue | | 1 |

The following entry is prepared to record $1 of interest received from trading securities:

| | | |
|---|---|---|
| Cash | 1 | |
| Interest revenue | | 1 |

iii. The following entry is prepared to record trading securities at market value:

| | | |
|---|---|---|
| Fair value adjustment (trading) | 1 | |
| Unrealized holding gain or loss—income | | 1 |

B. Securities Available-for-Sale

i. Available-for-sale securities are a form of debt investment that are purchased with the intent of selling before they reach maturity. Like trading securities, companies must report available for sale securities at fair market value. State Street labels these securities as "Investment securities available-for-sale".

ii. The following entry is prepared to record $1 of dividends from available-for-sale securities:

| | | |
|---|---|---|
| Cash | 1 | |
| Dividend revenue | | 1 |

The following entry is prepared to record $1 of interest received from available-for-sale securities:

| Account | Debit | Credit |
|---|---|---|
| Cash | 1 | |
| Interest revenue | | 1 |

iii. The following entry is to record available-for-sale securities at market value:

| Account | Debit | Credit |
|---|---|---|
| Fair value adjustment (available-for-sale) | 1 | |
| Unrealized holding gain or loss—Equity | | 1 |

C. Securities Held-to-Maturity

i. Held-to-maturity securities are a form of debt investment in which the investing company has both the positive intent and the ability to hold the securities to maturity. Unlike trading securities and available-for-sale securities, held-to-maturity securities are reported at amortized cost, not fair value. Equity securities must never be classified as held-to-maturity because equity does not have a set maturity date. If maturity did exist, a liability would be created and the security would be a form of debt. If a company has any intention of selling a security or holding it for an indefinite period of time, it must not be classified as held-to-maturity.

ii. No entry is made to record changes in the market value of held-to-maturity securities. These securities are recorded at their amortized cost.

D. Trading account assets

i. According to the balance sheet of State Street, the balance in "Trading account assets" on December 31, 2012 is $637,000,000. This amount represents the fair market value of the securities on that date. Trading securities are always reported at fair market value.

ii. The following entry was made to adjust trading account assets to fair market value, assuming that the 2012 unadjusted trial balance was $552,000,000:

| | | |
|---|---|---|
| Fair value adjustment (trading) | 85,000,000 | |
| Unrealized holding gain or loss—income | | 85,000,000 |

E. Investment securities held to maturity

i. According to the balance sheet of State Street, the balance in "investment securities held to maturity" at the end of 2012 is $11,379,000,000.

ii. At the end of 2012, the market value of State Street's investment securities held to maturity is $11,661,000,000.

iii. The amortized cost of these securities is $11,379,000,000. This is the amount reported on the balance sheet for investment securities held to maturity. "Amortized Cost" represents the cost of the securities after

adjustment for any discount or premium. An amortized discount is added to the original cost of the security to equal amortized cost. An amortized premium is deducted from the original cost to equal amortized cost. At maturity, amortized cost will equal the principal or face value of the security.

iv. The difference between the market value and the amortized cost of the securities represents the amount of premium amortized. Since fair market value has increased, this difference suggests that the average market rate of interest on held-to-maturity securities has decreased since State Street purchased the securities.

F. Investment securities available for sale

i. According to the balance sheet of State Street, the balance in "investment securities available for sale" at the end of 2012 is $109,682,000,000. This amount represents the fair market value of the securities at the end of 2012.

ii. As of December 31, 2012, the amount of net unrealized gains on State Street's available-for-sale securities is $1,119,000,000. This amount is a net gain because total unrealized gains of $2,001,000,000 are greater than total unrealized losses of $882,000,000.

iii. At the end of 2012, the amount of net realized gains on State Street's available-for-sale securities is $55,000,000. This amount is a gain because gross realized gains of $101,000,000 are greater than gross realized losses

of $46,000,000. The realized gains of $55,000,000 are included in the 2012 statement of income as an increase to net income. This amount is also reported as an increase to investing activities in the statement of cash flows, along with the cash received from the sale of the securities.

G. Cash Flow Activity

i. The following journal entry was made by State Street to record the purchase of available-for-sale securities for 2012:

| | Debit | Credit |
|---|---|---|
| Investments (available-for-sale) | 60,812,000,000 | |
| Cash | | 60,812,000,000 |

ii. The following entry was made by State Street to record the sale of available-for-sale securities in 2012:

| | Debit | Credit |
|---|---|---|
| Cash | 5,399,000,000 | |
| Net unrealized gain | 67,000,000 | |
| Net realized gain | | 55,000,000 |
| Investments (available for sale) | | 5,411,000,000 |

iii. The original cost of the available-for-sale securities sold during 2012 is $5,411,000,000. This amount is found by adding the difference between the net unrealized gain and net realized gain to cash received from the sale of the securities ($5,399,000,000 + $12,000,000 = $5,411,000,000).

iv. The amount of net unrealized gains at December 31, 2012 for the available-for-sale securities on hand total $67,000,000. The journal entry that State Street made to adjust the securities to market value at year end is presented below:

| | | |
|---|---|---|
| Fair value adjustment (available-for-sale) | 1,367,000,000 | |
| Unrealized gain or loss | | 1,367,000,000 |

The following T-account was used to determine the adjustment:

Unrealized Gain or Loss on Available-for-Sale Securities

| | | | |
|---|---|---|---|
| Beg. Bal. | $181,000,000 | | |
| | $67,000,000 | | |
| | | | $1,367,000,000 |
| | | End. Bal. | $1,119,000,000 |

The entry to adjust the available-for-sale securities to fair market value is a gain of $1,367,000,000. This adjustment increases the amount of cash flow from investing activities for 2012.

State Street Corporation holds a variety of investments including trading securities, securities available-for-sale, and securities held-to-maturity. Companies that intend to hold securities to maturity must present the amortized cost each period, while those who wish to sell securities in the

near future must report the fair market value of those securities. It is important to present the correct balance in these accounts in order to accurately reflect the company's intentions for the future of the investment. Users of financial information can then understand changes in debt-to-equity ratios from period to period as well as the company's ability to manage their debt and equity structure in the long-term future.

# CASE 11: REVENUE GROWTH

1. Companies like Groupon and Amazon have found widespread success by tapping into the new global market through technological advancement. The business models of these companies have similar attributes in the way in which they reach their customer base. However, many differences exist in how these companies report revenues and manage opportunities and risks. The companies can also be compared with the business model of a business like Walmart, in order to fully understand how companies are attempting to reach the modern customer.

   Upon analysis of the MD&A sections of each of these company's 10-ks, we find many similarities between Groupon and Amazon. Both companies provide online transactions for the purchase of merchandise by customers. The Internet is the primary platform for both companies, and they have successfully transitioned into the technological age by providing immediate, streamlined service to customers. However, significant differences exist in the way in which these two companies provide services. Groupon essentially acts as a middleman between the merchandiser and the consumer. The actual merchandise being exchanged is never under the control of Groupon. The site handles the monetary transactions between the buyer and seller, and earns a commission on the sale. Amazon, on the other hand, purchases merchandise from vendors and then resells it to its own customers. The company also handles transactions between third-

party sellers and customers, making a profit on the net share of revenue. Also, Amazon manufactures and sells its own electronic devices.

In contrast, Walmart operates physical store locations all across the world. The company is able to take advantage of economies of scale in order to offer low prices to its consumers. For the most part, both Walmart and Amazon provide products directly to the consumer, acting as the primary obligor. Groupon differs from this model, although they have attempted in the past to act as the primary obligor. Many of the same opportunities and risks exist among these companies. Each has the unique ability to provide easy access to products at low prices. Yet this opportunity comes with its share of risk. Amazon has succeeded in managing its risk by consistently using the net method of recognizing revenue. Groupon, however, attempted to use the gross method, overstating its revenues as well as cost of sales. On top of that, Groupon significantly misjudged its return estimates when it began offering high price-point deals in new markets where they had little experience. These mistakes in risk management created enormous risks for the company's financial reporting. Statements had to be recast twice, and the company's stock plummeted towards the end of 2012. Comparisons and contrasts between Groupon, Amazon, and Walmart illustrate the importance of managing opportunities and risks that arise around different business models.

2. "Revenue and revenue growth are more important than income and income growth for new businesses, especially in the new-age economy." On the surface, the preceding statement makes sense from a growth perspective. Many new companies attempt to break into their markets by rapidly increasing growth and

size. Over the past 18 years, Amazon has poured large amounts of capital into growing its revenue. From 1997 to 2010, and particularly in the early 2000's, Amazon's revenue growth sharply increased, however, income remained flat. The following image from IBTimes from the company's filings illustrates this stark comparison.

As of now, this huge disparity has had little effect on the company's investors. In turn, stock prices have been consistently increasing over the past 20 years. The chart below from Nasdaq.com highlights this stock price growth.

This would seem to support the quote above that revenue growth alone could lead to financial gain for the company. Yet I believe that Amazon's lack of income growth will soon cause problems for the company, specifically with its unwillingness, or possible inability, to pay dividends to shareholders. A quote on Amazon's investor relations web page reveals this issue: "We intend to retain all future earnings to finance future growth and, therefore, do not anticipate paying any cash dividends in the foreseeable future." Although irregular dividends do not signal immediate trouble for the company, the lack of profits from income growth could foreshadow an inability to pay dividends. Once investors acknowledge this, stock price could begin to shift downward. It is true that revenue growth is an integral part of any successful business, however, income growth is crucial for

maintaining steady profits and continued capital investment from potential shareholders.

3. The following table contains common size income statements for Groupon in 2009 and 2010. These abridged statements compare the changes between the company's original and amended S-1. The original S-1 was prepared under the gross method of recognizing revenue, while the amended S-2 was prepared under the net method.

| Groupon<br>Common Size Income Statements | | | | |
|---|---|---|---|---|
| | 2009 | | 2010 | |
| Income Statement Account | Gross | Net | Gross | Net |
| Revenue | 100.00% | 100.00% | 100.00% | 100.00% |
| Cost of Sales | 64.14 | 30.34 | 60.75 | 10.39 |
| Gross Margin | 35.86 | 69.66 | 39.25 | 89.61 |
| Marketing Expense | 15.13 | 33.79 | 36.89 | 90.86 |
| General and Admin. Expense | 24.67 | 44.14 | 32.79 | 68.17 |
| Other Expenses | | | 28.48 | 64.94 |
| Net Loss | -4.41 | -7.52 | -57.95 | -134.26 |
| Net Loss to common shareholders | -22.76 | -47.72 | -63.96 | -145.83 |

*Table 11.1 Groupon Common Size Income Statements*

An important comparison to notice in the table above is the remarkable increase in expenses as a percentage of revenue when the company amended its statements. In 2009, marketing expenses increased by almost 19 percentage

points, while general and administrative expenses increased by 19.5. In 2010, an even greater difference can be seen. Marketing expenses increased by 54 points, and general and administrative saw an increase of over 35 points. Another important ratio to consider is gross margin percentage. Although the effects of the two recognition methods do not influence gross margin, it is clear that gross margin as a percentage of revenue increased from 2009 to 2010. However, this increase is due primarily to Groupon's decreasing revenue from the gross to the net method amendment. A final ratio that is important for this comparison is the asset turnover ratio. This can be found by dividing total assets into sales of revenue. In 2009, under the gross method, Groupon's asset turnover ratio was 2.03. Under the net method, asset turnover decreased to 0.97. In 2010, under the gross method, the ratio was 1.87. Under the net method, the ratio decreased to 0.82. These significant differences in the ability to generate revenue on assets are very important to investors. Without the amendment, investors would have continued to receive inaccurate information about the company's revenue generating ability.

4. The following comparisons are in regards to Groupon's choice of accounting principles for revenue recognition.
    a. Table 1 illustrates the significant decrease in reported revenue prior to and after the revenue recognition amendments were made. In 2009, the changes caused a decrease of almost $16 M. In 2010, the decrease was over $400 M. To say these are significant changes is an understatement. The primary reason for the difference lies in the accounting principles of

the gross and net methods. Under the gross method, revenue is recorded by the e-tailer for the entire value of the transaction, even though the e-tailer is only profiting on a small portion of that transaction. Under the net method, the e-tailer records revenue only in the amount of the commission earned. For obvious reasons, the commission is much lower than the total value of the transaction, causing a reduction in the amount of reported revenue.

b. Groupon greatly preferred the original amounts of revenue reported under the gross method. Higher revenues presented the illusion that the company was generating that amount of sales from its services. This made the financial statements much more attractive to investors.

c. Groupon attempted to justify its methods of reporting revenue by claiming that it was the primary obligor in the transaction. Yet its explanation contradicted that position, by assigning responsibility of delivering goods and performing services to the merchant (Groupon 2011c, 2). Groupon essentially handles the monetary transaction as a third party, which does not qualify them as the primary obligor.

d. Most of Groupon's arguments in favor of the gross method were weak, with reference to ASC 605-15-25. The most inconceivable argument was that the company was the primary obligor in its transactions. For a better reference, the eight indicators that signify gross revenue reporting include:

    - The entity is the primary obligor in the arrangement

- The entity has general inventory risk – before customer order is placed or upon customer return
- The entity has latitude in establishing price
- The entity changes the product or performs part of the service
- The entity has discretion in supplier selection
- The entity is involved in the determination of product or service specifications
- The entity has physical loss inventory risk – after customer order or during shipping
- The entity has credit risk

Other than the fact that Groupon performs part of the service, none of these indicators describe Groupon's part in the transaction. The company's argument that it is the primary obligor would require some liability to deliver the product to the customer, yet this liability does not exist for Groupon.

5. The following points describe Groupon's recognition of revenue on the sale of high-ticket items, as well as their right of return policy.
    a. With regards to ASC 605-15-25, Groupon's business model does not meet all six requirements that would allow the company to recognize revenue at the time of sale. The main concern lies in requirement f. Groupon had very little experience selling high-ticket items, like Lasik eye surgery vouchers, therefore there was no basis for the company to reasonably estimate the amount of future returns. Again, revenue was overstated because the

company had too little reserves in place for the returns. Basically, Groupon should never have recorded the original amounts of revenue, especially for the high-ticket items. The error led to yet another restatement for the company. After restatement, revenue was again much lower than before.

b. I disagree with Groupon's methods of accounting. The use of the gross method for recognizing revenue was inappropriate, based on the business model of the company. If Groupon was actually selling products and was liable for the product delivery to the customer, then the gross method would have been slightly more justifiable. The company should also have reported no revenue on the high-ticket items. It is important for companies to be conservative in situations where estimates are needed, especially if the company has no prior experience in that market. Groupon's accounting errors led to overstatements of revenue, which in turn created higher accounting costs for restatements, and decreased investor confidence.

c. Groupon should have reported revenues using the net method from the beginning. The company would have accurately reported the true amount of revenue it was receiving from its services, and saved money on accounting fees to correct the errors. Also, sales of high-ticket items where the company had no experience should not have been recorded as revenue. The effects of these accounting methods would have caused lower revenues, however, cost of sales would also be lower. Gross profit would

not be significantly affected between these two methods. Revenue, on the other hand, would have been accurately reported from the beginning.

6. Between the two methods of recognizing revenue, cash flow does not change. Under both methods, Groupon remitted the proper amount of cash owed to the merchant. The only difference lies in the cost of sales and the reporting of revenue. Under the gross method, cost of sales is debited against a liability, and then the liability is eliminated once cash is paid. Under the net method, cost of sales does not exist. A small portion of revenue, the commission, is credited along with the liability upon receipt of cash. The liability then disappears when the proper amount of cash is paid to the merchant. Groupon profits simply on their ability to attract customers to a merchant's product and provide the customer with a reduced price. The issue lies not in the cash transactions, but in the proper amount of revenue that Groupon should record.

Groupon is an excellent example of the importance of following the correct accounting guidelines for revenue recognition. Huge discrepancies can be found in financial statements when mistakes are made, or when a company does not properly align its business model with current accounting practice. Proper accounting saves companies millions of dollars in fees and penalties, and fosters good relations with investors and potential shareholders.

CASE 12: TAX ISSUES

A. Book Income is a term for the pretax financial income of a corporation. This amount can also be called income before taxes, or income for financial reporting purposes. Book income is determined according to GAAP for the purpose of providing important information to investors and creditors. With regards to ZAGG Inc., book income is $23,898,000. In contrast to book income, taxable income is determined according to the Internal Revenue Code. Also, while book income is used to measure income tax expense, taxable income is used to measure income taxes payable. Differences between tax expense and taxes payable arise due to the fact that companies use the full accrual method for financial purposes, but they use a modified cash basis for tax purposes. At the end of a period, however, tax expense and taxes payable will be equal in total.

B.

   i. Permanent tax differences represent transactions that are reported differently for financial and tax purposes. However, these differences will not be eliminated. Permanent differences only affect the period in which they occur, so no deferred tax consequences are recognized. An example of a permanent tax difference is interest received from municipal bonds. The interest is reported for financial purposes, but not for taxable income.

   ii. Temporary tax differences represent the difference between the book value of an asset or liability, and its tax basis. Temporary differences can

be either taxable differences or deductible differences. Taxable differences create deferred tax liabilities, while deductible differences create deferred tax assets. An example of a temporary difference would be sales that are accounted for using the accrual basis for financial reporting and on the installment basis for tax purposes.

iii. A statutory tax rate is a rate that is legally created by the government. Statutory rates can vary based on income levels, or they can be flat. An example of a flat statutory rate would be a sales tax.

iv. The effective tax rate represents the actual percentage of income that is paid in the form of taxes. The rate is typically lower than the statutory rate, due to various deductions. These deductions legally lower the amount of taxable income that is applied to the statutory rate. This difference creates lower income taxes than what would be paid under the statutory rate.

C. Companies must report deferred income taxes as part of their total income tax expense because deferred income taxes represent a liability to the company. In other words, the company has accrued the revenue that must be taxed, however that tax will be imposed in a future period. Since the accrual method is used for GAAP reporting, the company must recognized the liability in total income tax expense. Ignoring deferred taxes in income tax expense would understate total expenses and would not follow the Expense Recognition Principle of GAAP.

D. Deferred income tax assets and liabilities represent differences that arise between financial reporting and tax reporting guidelines. A deferred tax asset can be created for two reasons. The first would be if expenses are recognized for

financial reporting before they are required to be recognized by tax regulations. The second reason would be if revenue is subject to taxation before it is taxable for financial reporting. An example of a deferred tax asset is the accounting for estimations in warranty repairs. Although companies can estimate warranty expense for financial reporting purposes, they typically cannot estimate this amount for tax purposes. For this reason, a temporary difference arises in higher taxable income and higher income taxes payable for taxation purposes. The positive difference between income taxes for tax purposes and financial purposes represents the deferred tax asset. A deferred tax liability is a situation in which income taxes for financial purposes exceed taxes for taxation purposes. Basically, the company is obligated to pay taxes in future periods on revenues that it generated in the current period. An example of a deferred tax liability involves the use of the installment sales method. For financial purposes, a company may recognize the entire revenue from a sale at the time of sale, but for tax purposes it may use the installment sales method. At the time of sale, the difference between the installment recognized in the current period and the remaining installments, represents the deferred tax liability. Both of these deferred tax situations are created from differences between GAAP and tax regulations.

E. A deferred income tax valuation allowance is an account used to reduce the deferred tax asset account to its proper realizable amount. The valuation allowance account should be used if available evidence suggests that it is more likely than not that the company will not realize a portion of the deferred tax asset. “More likely than not” represents a likelihood of at least 50 percent. The

creation of this valuation account increases income tax expense by the amount of deferred tax asset that is expected to be unrealizable. The valuation account is a contra asset account and is presented on the balance sheet as a reduction to the carrying amount of the deferred tax asset.

F.

i. The following entry was made by ZAGG to record the income tax provision for fiscal 2012 (in thousands):

| | | |
|---|---|---|
| Income Tax Expense | 9,393 | |
| Deferred Tax Asset | 8,293 | |
| Income Taxes Payable | | 17,686 |

ii. Decomposition of "net deferred income taxes" into deferred income tax asset and liability components:

| | |
|---|---|
| Net Deferred Tax Assets | $13,508 |
| Total Deferred Tax Assets (including allowance) | (14,302) |
| Deferred Tax Liabilities | $ (794) |

iii. ZAGG's 2012 effective tax rate is found by dividing the actual income tax provision by the income before provision for income taxes. This calculation yields an effective tax rate of 39.30 percent (9,393 / 23,898 = .3930). The difference between the statutory rate and the effective rate is

created by an increase in the income tax provision from $8,364 to $9,393. The adjustments that led to this net increase include the state tax, net of federal tax benefit, a non-deductible expense, a deduction from domestic production activities, a return to provision adjustment, and a federal 38 percent rate bracket surcharge. The increase in the provision created the increase in the tax rate, since income before provision for income taxes remained the same on the income statement.

iv. The $13,508,000 of net deferred income tax assets is presented in the assets section of ZAGG's balance sheet. More specifically, the net deferred tax asset is comprised of a current and a noncurrent portion, $6,912,000 and $6,596,000, respectively. The current portion is presented in the current assets section of the balance sheet. The noncurrent portion is presented as a long-term asset. Both of these subsets are labeled "Deferred income tax assets" on ZAGG's balance sheet.

G.

i. As of December 31, 2012, the tax system recognized a greater expense over time relating to depreciation. For example, the tax system could have used MACRS to calculate depreciation, which would have created higher depreciation this period than the straight-line method would have for financial purposes. This assessment was made using the fact that higher expenses for tax purposes yield a lower tax provision than that for financial purposes, using a statutory rate. The difference between the two

tax amounts creates the deferred tax liability of $794,000 that is presented in Note 8.

ii.

| Cumulative difference in book and tax depreciation expense<br><br>$2,268,571 |
|---|
| X |
| Statutory income tax rate<br>35% |
| = |
| Deferred income tax liability relating to property and equipment at 12/31/2012<br>$794,000 |

The chart above is used to determine the dollar value difference in depreciation expense between the book and tax systems.

iii. If tax depreciation had been used throughout the asset's lives instead of the reported method, the balance in "Property and equipment, net" would be $2,593,429. This amount is found by increasing accumulated depreciation by the $2,268,571 difference, thus decreasing reported value of the Property and Equipment by the same amount.

H.

i. During the year ended December 31, 2012, the book system recognized a greater expense for doubtful accounts than did the tax system. Temporary differences that represent deferred tax assets are created when the tax provision under the tax system is greater than the tax provision under the

book system. The result is a future deductible amount. In the case of ZAGG, the company reported a greater bad debt expense, or allowance, in its books than it did for the tax system. This resulted in a lower amount of income subject to tax, and therefore a lower tax provision than the tax system. The deferred tax asset of $1,020,000 is shown in Note 8.

ii.

| Current period difference in book and tax bad debt expense in 2012<br>$2,914,286 |
|---|
| X |
| Statutory income tax rate<br>35% |
| = |
| Changes in the deferred income tax asset relating to the allowance for doubtful accounts<br>$1,020,000 |

The chart above is used to determine the dollar value difference in bad debt expense between the book and tax systems.

I. At December 31, 2012, the amount in the deferred income tax asset valuation allowance is $713,000. ZAGG determines this amount through careful review of evidence, including historical data. The company determined that the valuation allowance was necessary because, based on available evidence, it was more likely than not that it would not realized at least some portion of the deferred tax asset. In other words, there was a 50 percent or greater chance that a portion of the asset would be unrealizable.

J. The following entry is recorded by ZAGG to adjust the net deferred tax asset, after the federal statutory rate was changed from 35 percent to 30 percent. The total change is 38 percent to 33 percent, when the state rate is included.

| | Debit | Credit |
|---|---|---|
| Income Tax Expense | 1,777 | |
| Deferred Tax Asset | | 1,777 |

The adjustment (in thousands) above is found by first computing the total deductible amount of $35,547 (13,508 / 38% = 35,547). The new statutory rate is then applied to the deductible amount to compute the proper amount of net deferred tax asset, $11,731 (35,547 x 33% = 11,731). An adjustment is then needed to reduce the deferred tax asset from $13,508 to $11,731. This adjustment is reflected in the entry above. The state statutory rate is not needed to compute this adjustment since that rate does not change. The entry above increases income tax expense while simultaneously decreasing the deferred tax asset. The adjusting entry is needed to reflect the correct balance in the deferred asset account. If the entry were not made, the account would be overstated.

## CASE 13: PENSIONS AND RETIRMENT OBLIGATIONS

A. Defined Benefit Plans and Defined Contribution Plans

i. The two types of retirement plans that exist are defined benefit plans and defined contribution plans. The primary difference between these two plans lies in which period the set benefit amount is determined. Under a defined contribution plan, the employer contributes a certain sum to a pension trust each period. This amount is determined by a formula that considers multiple factors, including age, employee service length, employer profits, and compensation level. The most important aspect of this plan is the fact that it only defines the employer's periodic contributions. It does not promise any ultimate benefits to be paid in the future. Once the periodic contribution amounts are determined, the company turns over the contributions to an independent third-party trustee, who is responsible for the pension assets and their investment and distribution. A defined benefit plan differs from a contribution plan in that benefits are determined based on what the employee will receive when they retire. Benefit amount is based on the employee's years of service and compensation levels in the years before retirement. Since the benefit amount is actually a future payment amount, a time value of money computation is needed to determine what the company must contribute today in order to achieve the proper total fund in the future. A trust is

established to protect and invest assets so that there will be enough to cover the employer's obligation. At employee retirement, if the fund is short, the employer must pay the remaining amount. If the fund is in excess, the employer can recapture the excess amount. Johnson & Johnson sponsors both types of plans, which cover most of their employees worldwide.

ii. Retirement plan obligations are classified as liabilities on a company's balance sheet. These obligations are liabilities because they represent an obligation by the company to pay a certain amount to employees in the future. It is the responsibility of the employer to make the proper contributions, and to turn the funds over to the pension fund.

iii. A primary assumption that is agreed upon is that companies should account for pension costs on the accrual basis. Many other assumptions also exist. In order to account for retirement plan obligations, we must assume that the obligation is an amount that the company is required to pay to its employees in the future. Defined contribution plans are accounted for by creating a pension expense that represents the cost of the amounts contributed each period. A liability exists if the employer does not pay the full contribution amount, and an asset exists if the employer pays more than the full contribution amount. With regards to a defined benefit plan, in form, the accumulated trust is a separate entity, but in substance, the trust assets and liabilities belong to the employer. Regardless of what happens to the trust, the employer is responsible for

the payment of the defined benefit plan. Employers are at a much higher risk with a defined benefit plan because they must contribute enough to cover the cost of the benefits defined in the plan. Unlike the contribution plan, expenses each period do not always equal cash contributions. For this reason, the accounting for defined benefit plans is not as simple as that for defined contribution plans.

B. Four types of activities influence the amount of a company's pension obligation, including service cost, interest cost, actuarial gains and losses, and benefits paid to retirees. The service cost is the expense that the company realizes based on the services rendered by employees. The service cost increases a pension benefits payable account, the liability. The amount of service cost is determined by an actuary, who estimates the benefits that the employer must pay in the future, and then discounts that amount back to its present value. Interest cost exists because companies defer the payment of the pension obligation until maturity. Since the obligation is discounted back to its present value, the company accrues interest expense on the liability. Interest rates are determined with the help of the actuary. Actuarial gains and losses arise when there is a difference between estimates and actualities in a pension plan. These differences exist because pension obligations rely heavily on estimates of future amounts. The final activity involves benefits paid to retirees. This amount represents the actual funds that are paid to a company's employees when they retire. This amount is a set future amount that must be met by the company. Once benefits are paid, the pension obligation or liability decreases.

C. Three types of activities influence a company's pension assets, including actual returns on pension investments, company contributions to the plan, and benefits paid to retirees. Actual returns on pension investments arise when companies attempt to earn a return on investments in stocks, bonds, or even real estate. These returns are used to increase pension plan assets. Company contributions to the plan have a similar affect. Company contributions increase the pension plan assets. Returns on investments simply help the company by increasing pension assets. The higher the return on the plan assets, the less the employer must recognize in pension expense. Benefits paid to retirees are the amounts that are deducted from the pension plan assets. Consequently, benefits paid decrease plan assets.

D. Return on plan assets differs for pension expense and pension plan assets. Return on plan assets for pension expense is the expected return that is calculated with the help of the actuary. The return for the pension plan assets is the actual return that was received on the plan asset investments. The rationale for this difference lies in the smoothing of unexpected gains and losses on plan assets to avoid large discrepancies between actual and expected returns each period. Although actual returns are credited to pension expense, the difference between actual and expected return is credited to pension expense as well. Thus, the returns for pension expense equal the expected returns.

E. Johnson & Johnson provides both retirement plans and other-benefits plans to its employees. The primary difference between these plans is that the company does not fund retiree health care benefits in advance, although it does so for retirement

plans. Johnson & Johnson also has the right to modify the other-benefits plans in the future, but it cannot modify the retirement plans. The company bases its retirement plans on the employee's compensation during the last three to five years before retirement and the number of years of service.

F. Pension Expense

i. Johnson & Johnson reported pension expense in the amount of $646,000,000 in 2007. The company refers to pension expense as "Net periodic benefit cost."

ii. The following entry was made to record the service cost and interest cost portion of the pension expense for 2007 (in millions):

| | Debit | Credit |
|---|---|---|
| Pension Expense | 1,253 | |
| Pension Asset/Liability | | 1,253 |

G. Retirement Plan Obligation

i. At December 31, 2007, the value of Johnson & Johnson's retirement plan obligation, or the projected benefit obligation, is $12,002,000,000. This value represents the accumulated obligation that the company owes to its employees at retirement. In other words, it is the cost that must be covered by the employer's returns on plan assets and contributions to plan assets.

ii. The pension-related interest cost for Johnson & Johnson in 2007 is $656,000,000. Interest cost is determined by multiplying the beginning-of-the-period projected benefit balance times a settlement rate that is

determined by the actuary. The average interest rate is computed to be 5.63 percent. This rate can be found by dividing the interest cost by the beginning projected benefit balance ($656,000,000 / $11,660,000,000 = 5.63%). The rate used by the company seems to be a reasonable rate. These rates are determined upon comparison of the rates of return on high-quality investments, whose cash flows mirror the amount of the expected benefit obligations. The rates, then, are typically reasonable and accurate.

iii. Johnson & Johnson paid $481,000,000 in pension benefits to retirees in 2007. The company used its plan assets to pay pension benefits to retirees. When benefits are paid, there is a negative effect on the retirement plan obligation and the retirement plan assets. In other words, when benefits are paid out, both the retirement plan obligation and the retirement plan assets are decreased by the amount of the benefits.

H. Retirement Plan Assets

i. At December 31, 2007, the value of Johnson & Johnson's retirement plan assets is $10,469,000,000. The value of the retirement plan assets is determined by factors including the beginning balance of plan assets, plus actual returns from investments in stocks, bonds, or other securities. Also, plan assets include contributions from the company. Deductions from plan assets are usually in the form of benefits paid to employers. The summation of these factors results in the ending balance, or the ending value, of the retirement plan assets.

ii. In 2006, the expected return on plan assets was $701,000,000 while the actual return was $966,000,000. The expected return is understated by $265,000,000. In 2007, the expected return on plan assets was $809,000,000 while the actual return was $743,000,000. The expected return this year is overstated by $66,000,000. Although these differences are significant, companies can use a smoothing technique to account for unrealized gains or losses on plan assets. This technique records the gains or losses in "Other Comprehensive Income-G/L" and pension expense. In my opinion, the expected return better reflects the economics of the company's pension expense. This is because, as previously mentioned, the differences between the actual and expected returns will be added back or reduced from pension expense. At the end of the period, plan asset returns in pension expense will equal the expected return, no matter the actual return.

iii. Contributions to the retirement plan total $317,000,000 in 2007. In 2006, contributions totaled $259,000,000. These numbers show that the company increased contributions by $58,000,000 from 2006 to 2007.

iv. Johnson & Johnson carries investments in debt and equity securities for both its U.S. retirement plans and its international retirement plans. The international plans also include real estate and other investments. For both plans, equity securities comprise the majority of investments, 79 percent for the U.S. plans, and 67 percent for the international plans. Both percentages are 2007 numbers.

I. At December 31, 2007, Johnson & Johnson's retirement plan is underfunded by $1,533,000,000. The reason for this amount lies in the difference between the end-of-year projected benefit obligation and the end-of-year plan assets at fair value ($12,002,000,000 - $10,469,000,000 = $1,533,000,000). This amount is classified as a pension liability owed by the company. For this reason, the amount is reported on the long-term liabilities section of the balance sheet, under the line item of "Employee related obligations."