# The Financial Analysis and the Application of U.S. GAAP Principles 

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#### Abstract

This thesis follows eleven case studies examining various accounts of U.S. GAAP financial statements. Each case study represents a specific area of the financial statements, and each case uses a different company to analyze the accounts. Through the cases, commonly misstated items are explored. The purpose of this thesis is to determine the proper U.S. GAAP treatment of these items. The thesis explores all areas of the financial statements including accounts from both the income statement and balance sheet.

The thesis was written during the Honors Accy 420 class during the academic year 2015-2016. The class allowed me to gain a deeper knowledge of the accountancy methods I learned in my junior level accountancy classes. The cases challenged me to think beyond the simple answers and engage in thought about complex accountancy issues. I learned to research using accountancy software, a skill I will take to my future career. In addition to the technical knowledge I gained, I honed my writing skills. In my future profession, I will be expected to write reports about my suggestion for accountancy treatments and this thesis has allowed me to practice this skill. The issues this thesis covers are complex, but learning to work through these problems has given me a deeper hands on education.


## TABLE OF CONTENTS

Abstract ..... ii
Chapter 1 ..... 1
Investment Decision based on Financial Ratios ..... 1
Chapter 2 ..... 12
Income Statement Analysis ..... 12
Chapter 3 ..... 20
Receivables and Bad Debt. ..... 20
Chapter 4 ..... 23
Reporting Realizable Value ..... 24
Chapter 5 ..... 31
Estimates in Accountancy. ..... 31
Chapter 6 ..... 36
Liabilities and Contingencies ..... 36
Chapter 7 ..... 38
Equity ..... 38
Chapter 8 ..... 43
Securities ..... 43
Chapter 9 ..... 47
Revenue Recognition ..... 47
Chapter 10 ..... 53
Income Tax ..... 53
Chapter 11 ..... 57
Pension Planning ..... 57

## CHAPTER 1

## Investment Decision based on Financial Ratios

## Executive Summary

With two similar companies such as Eads Heater, Inc. and Glenwood Heating, Inc., small management decisions can have a big effect on making the company more desirable than the other to investors. Eads management made smart decisions when reporting their financial position and boosted their profitability long term. Though they had a lower net income than Glenwood in the first year, they took on more estimated expenses like depreciation which will allow them to make higher profits in the upcoming years. Eads is by far the better investment option because they are more liquid and focused on the long term success of the company by covering their expenses without incurring large amounts of operating cash flow.

## Company Background

Eads Heater, Inc. and Glenwood Heating, Inc. are very similar companies. Both began in 2001, and both are located in Colorado. Their operations yield similar revenues and they exist in similar economic conditions. Their differences make Eads a better option to invest in. Eads' managers make smarter accounting decisions that lead to higher liquidity, higher long-term profitability, and an overall better financial position.

## Current Year Financial Position

Throughout the year, Glenwood and Eads had the exact same operations. They began the year by selling 3,200 shares of stock and ended by paying off dividends. They created inventories and sold merchandise; they allowed credit purchases and paid off their own debt. These day-by-day choices which create the foundation of the company are the exact same. It is the reporting choices that are different. First, Eads estimates that 5 percent of Accounts Receivable should be reported as uncollectible while Glenwood only reported 1 percent. Eads used Last In, First Out when reporting Cost of Goods Sold contrasting Glenwood's First in, First Out method. They chose different depreciation methods for equipment and negotiated different contracts with an equipment lessor.

These decisions construct the financial position of each company. Eads takes a more cautious approach and expenses more in the first year than Glenwood. With more expenses, Eads' net income is lower than Glenwood's net income as seen in Figure 1.1 and Figure 1.2. Glenwood's net income is $\$ 22,227$ higher than Eads. This distinction will be important when comparing profitability ratios. With a higher net income, Glenwood can report higher retained earnings since both Eads and Glenwood paid the same dividends as shown in Figure 1.3 and Figure 1.4. Thus far, Glenwood may appear the better investing option, but this is only because Eads is covering more expenses such as depreciation and interest in the first year.

## Balance Sheet and Cash Flows

On the Balance Sheet, Figure 1.5 and Figure 1.6, Eads begins to report higher numbers. Eads negotiated a lease agreement with an outside lessor for equipment. This lease is documented in lease payable and leased equipment on the balance sheet
increasing both assets and liabilities. By reporting this agreement as a rent expense, Glenwood has lower assets and liabilities.

The Statement of Cash Flows is a huge indicator of the financial stableness of a company. As it is the first year of operation, both companies report major negative cash flows as shown in Figure 1.7 and Figure 1.8. Looking closely at the net operating cash flow, Eads reports a negative value of $\$ 325$, this includes paying off many of their expenses that Glenwood does not pay off. On the other hand, Glenwood reports a negative $\$ 16,347$ in cash flow. With the double declining depreciation method, Eads will pay less and less each year for its deprecation, so it could report a positive cash flow in the near future. All in all, Eads may have a better financial position than Glenwood according to its statements, but further study is required to decide to invest in Eads over Glenwood.

## Liquidity and Profitability Ratios

From a liquidity standpoint, Eads is a better option for investing. Not only is their quick ratio .20 points higher than Glenwood, they also have a faster inventory turnover. Eads operating cycle is also 16 percent shorter than Glenwood. Their ability to create cash quickly makes them superior over their counterpart. Glenwood has an operating cycle that is two-thirds of Eads year as shown in Figure 1.9.

For the first year, Glenwood has a higher profitability than Eads. This is due to the higher reported net income as shown on their Income Statement in Figure 1.2. As previously discussed, the higher net income is not due to higher revenues but rather a difference in estimated expense reporting. Even then, their profit margins are comparable. In future years, Eads's expenses will decrease while Glenwood's will stay stable. It is easy to predict that in the future Eads's will have a higher profit margin. In

Figure 1.10 and Figure 1.11, the future Income Statements of both companies are predicted. These X2 Income Statements are used to approximate X2 Gross Profit Margin and Profit Margin. This is based on X1's sales and inventory purchases. Since Eads and Glenwood have the same transaction operations throughout the year, any amount of revenue will yield similar results. An increase in sales for one will be an increase in sales for the other. All of the numbers in blue are from 20X1's numbers. In just one year, Eads's profit margin increases .11 points while Glenwood's declines .01 as shown in Figure 1.9. Though the figures aren't exact, they give a good approximation of the future of the two companies.

## Investment Decision

By covering their expenses earlier in their lifespan, Eads sets the company up for higher profits in the future and long-term success. Glenwood is a stable company with stable profits. Unfortunately, stable profits are not growing profits, and an investor will not see a large return on his or her investment. Meanwhile, Eads financial position and smart management decisions will produce a large return on investment as the company continues to grow.

| Eads Heater, Inc. Income Statement <br> For the year ended December 31, 20X1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Net Sales |  |  | \$398,500 |
| COGS |  |  | \$188,800 |
| Gross Profit of Sales |  |  | \$209,700 |
| Selling Expense |  |  |  |
| Other Operating Expenses |  | \$34,200 |  |
| Administrative Expenses |  |  |  |
| Depreciation Expense <br> Bad Debt Expense | $\begin{array}{r} \$ 41,500 \\ \$ 4,970 \end{array}$ |  |  |
| Total Administrative Expense |  | \$46,470 |  |
| Total Selling and Administrative Expense |  |  | \$ 80,670 |
| Income from operations |  |  | \$129,030 |
| Other Expenses and Losses Interest Expense |  |  | \$ 35,010 |
| Glenwood Heating, Inc. Income Statement <br> For the year ended December 31, 20X1 |  |  |  |
| Net Sales |  |  | \$398,500 |
| COGS |  |  | \$177,000 |
| Gross Profit of Sales |  |  | \$221,500 |
| Selling Expense |  |  |  |
| Other Operating Expenses |  | \$34,200 |  |
| Administrative Expenses |  |  |  |
| Depreciation Expense | \$19,000 |  |  |
| Rent Expense | \$16,000 |  |  |
| Bad Debt Expense | \$ 994 |  |  |
| Total Administrative Expense |  | \$35,994 |  |
| Total Selling and Administrative Expense |  |  | \$ 70,194 |
| Income from operations |  |  | \$151,306 |
| Other Expenses and Losses |  |  |  |
| Interest Expense |  |  | \$ 27,650 |
| Income before Income Taxes |  |  | \$123,656 |
| Income Tax |  |  | \$ 30,914 |
| Net Income |  |  | \$ 92,742 |

Figure 1.2 : Glenwood Income Statement

| Eads Heater, Inc. <br> Statement of Retained Earnings <br> For the year ended December 31, 20X1 |  |
| :--- | :---: |
| Retained Earnings, Jan. 1 |  |

Figure 1.3 : Eads Retained Earnings

| Glenwood Heating, Inc. <br> Statement of Retained Earnings <br> For the year ended December 31, 20X1 |  |
| :--- | :---: |
| Retained Earnings, Jan. 1 | - |
| Add: Net Income | $\$ 92,742.00$ |
| Less: Dividends | $\underline{\$ 23,200.00}$ |
| Retained Earnings, Dec. 31 | $\underline{\$ 69,542.00}$ |

Figure 1.4: Glenwood Retained Earnings

| Eads Heater, Inc.Balance SheetFor the year ended December $31,20 \mathrm{X} 1$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Current Assets |  |  |  |  |  |
| Cash |  |  |  |  | 7,835 |
| Accounts Receivable |  | \$ | 99,400 |  |  |
| Less: Allowance for Bad Debt Expense |  | \$ | 4,970 | \$ | 94,430 |
| Inventory |  |  |  |  | 51,000 |
| Total Current Assets |  |  |  |  | 153,265 |
| Property, Plant, and Equipment |  |  |  |  |  |
| Land |  | \$ | 70,000 |  |  |
| Building |  |  | 350,000 |  |  |
| Equipment |  | \$ | 80,000 |  |  |
| Leased Equipment |  | \$ | 92,000 |  |  |
| Less: Accumulated Depreciation- Building | \$ 10,000 |  |  |  |  |
| Less: Accumulated Depreciation- Equipment | \$ 20,000 |  |  |  |  |
| Less: Accumulated Depreciation- Leased Equipmen Total Accumulated Depreciation | \$ 11,500 | \$ | 41,500 |  |  |
| Total Property, Plant, and Equipment |  |  |  |  | 550,500 |
| Total Assets: |  |  |  |  | 703,765 |
| Current Liabilities |  |  |  |  |  |
| Accounts Payable |  | \$ | 26,440 |  |  |
| Interest Payable |  | + | 6,650 |  |  |
| Total Current Liabilities |  |  |  | \$ | 33,090 |
| Long Term Liabilities |  |  |  |  |  |
| Notes Payable |  |  |  |  | 380,000 |
| Lease Payable |  |  |  |  | 83,360 |
| Total Liabilities |  |  |  |  | 496,450 |
| Stockholders' Equity |  |  |  |  |  |
| Common Stock |  |  | 160,000 |  |  |
| Retained Earnings |  | \$ | 47,315 |  |  |
| Total Stockholders' Equity |  |  |  |  | 207,315 |
| Total Liabilities and Stockholders' Equity |  |  |  |  | 703,765 |

Figure 1.5 : Eads Balance Sheet

| Glenwood Heating, Inc. <br> Balance Sheet <br> For the year ended December 31, 20X1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Current Assets |  |  |  |
| Cash |  |  | \$ 426 |
| Accounts Receivable |  | \$ 99,400 |  |
| Less: Allowance for Bad Debt Expense |  | \$ 994 | \$ 98,406 |
| Inventory |  |  | \$ 62,800 |
| Total Current Assets |  |  | \$161,632 |
| Property, Plant, and Equipment |  |  |  |
| Land |  | \$ 70,000 |  |
| Building |  | \$350,000 |  |
| Equipment |  | \$ 80,000 |  |
| Leased Equipment |  | \$ |  |
| Less: Accumulated Depreciation- Building | \$10,000 |  |  |
| Less: Accumulated Depreciation- Equipment Total Accumulated Depreciation | \$ 9,000 | \$ 19,000 |  |
| Total Property, Plant, and Equipment |  |  | \$481,000 |
| Total Assets: |  |  | \$642,632 |
| Current Liabilities |  |  |  |
| Accounts Payable |  | \$ 26,440 |  |
| Interest Payable |  | \$ 6,650 |  |
| Total Current Liabilities |  |  | \$ 33,090 |
| Long Term Liabilities |  |  |  |
| Notes Payable |  |  | \$380,000 |
| Total Liabilities |  |  | \$413,090 |
| Stockholders' Equity |  |  |  |
| Common Stock |  | \$160,000 |  |
| Retained Earnings |  | \$ 69,542 |  |
| Total Stockholders' Equity |  |  | \$229,542 |
| Total Liabilities and Stockholders' Equity: |  |  | \$642,632 |

Figure 1.6 : Glenwood Balance Sheet

| Eads Heater, Inc. <br> Statement of Cash Flows <br> For the year ended December 31, 20X1 |  |  |  |
| :---: | :---: | :---: | :---: |
| Cash Flows from Operating activities |  |  |  |
| Net Income |  |  | \$ 70,515 |
| Adjustments to reconcile net income to |  |  |  |
| Depreciation Expense | \$ | 41,500 |  |
| Increase in Inventory | \$ | $(51,000)$ |  |
| Increase in Accounts Receivable | \$ | $(94,430)$ |  |
| Increase in Accounts Payable Increase in Interest Payable | \$ | $\begin{array}{r} 26,440 \\ 6,650 \end{array}$ | \$ $(70,840)$ |
| Net Cash provided by operating activities |  |  | \$ (325) |
| Cash Flows from investing activities |  |  |  |
| Purchase of Equipment | \$ | 80,000 |  |
| Purchase of Land | \$ | 70,000 |  |
| Purchase of Building | \$ | 350,000 |  |
| Net Cash used by investing activities |  |  | \$(500,000) |
| Cash Flows from financing activities |  |  |  |
| Increase in Notes Payable | \$ | 380,000 |  |
| Payment of Cash Dividends Issuance of Common Stock | \$ | $\begin{array}{r} 23,200 \\ 160,000 \\ \hline \end{array}$ |  |
| Net Cash Provided by Financing Activities |  |  | \$(243,200) |
| Net Increase in Cash |  |  | \$(743,525) |
| Cash at the beginning of the year |  |  | \$ - |
| Cash at the end of the year |  |  | \$(743,525) |

Figure 1.7 : Eads Statement of Cash Flows

| 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 |  |  |
| Depreciation Expense | \$19,000 |  |
| Increase in Inventory | $(\$ 62,800)$ |  |
| Increase in Accounts Receivable | $(\$ 98,406)$ |  |
| Increase in Accounts Payable | \$26,440 |  |
| Increase in Interest Payable | \$6,650 | (\$109,116) |
| Net Cash provided by operating activities |  | $(\$ 16,374)$ |
| Cash Flows from investing activities |  |  |
| Purchase of Equipment |  | $(\$ 80,000)$ |
| Purchase of Land |  | $(\$ 70,000)$ |
| Purchase of Building |  | (\$350,000) |
| Net Cash used by investing activities |  | (\$500,000) |
| Cash Flows from financing activities |  |  |
| Increase in Notes Payable | \$380,000 |  |
| Payment of Cash Dividends Issuance of Common Stock | $\begin{array}{r} \$ 23,200 \\ \$ 160,000 \end{array}$ |  |
| Net Cash Provided by Financing Activities |  | (\$243,200) |
| Net Increase in Cash |  | (\$759,574) |
| Cash at the beginning of the year |  | \$0 |
| Cash at the end of the year |  | (\$759,574) |

Figure 1.8 : Glenwood Statement of Cash Flows

| Financial Ratio Comparison |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Year X1 |  | Year X2 |  |
|  | Eads | Glenwood |  | Glenwood |
| Liquidity Ratios |  |  |  |  |
| Current Ratio | 4.63 | 4.88 |  |  |
| Acid-Test Ratio | 3.09 | 2.99 |  |  |
| Accounts Receivable Turnover | 4.01 | 4.01 |  |  |
| Days to collect Receivables | 91.04 | 91.04 |  |  |
| Inventory Turnover | 3.70 | 2.82 |  |  |
| Days to sell inventory | 98.60 | 129.50 |  |  |
| operating cycle | 189.64 | 220.55 |  |  |
| Profitability Ratios |  |  |  |  |
| Gross Profit Margin | 0.53 | 0.56 | 0.61 | 0.54 |
| Profit Margin | 0.18 | 0.23 | 0.29 | 0.22 |
| Return on assets | 0.10 | 0.14 |  |  |
| Return on Owner's Equity | 0.34 | 0.40 |  |  |
| Earnings per Share | 22.04 | 28.98 |  |  |
| Long-Term Solvency Ratios |  |  |  |  |
| Debt Ratio | 0.71 | 0.64 |  |  |
| Times interest Earned | 4.80 | 7.32 |  |  |

Figure 1.9 : Financial Ratio Comparison

| Eads Heater, Inc. <br> Income Statement <br> For the year ended December 31, 20X2 |  |  |  |
| :---: | :---: | :---: | :---: |
| Net Sales |  |  | \$398,500 |
| COGS |  |  | \$155,400 |
| Gross Profit of Sales |  |  | \$243,100 |
| Selling Expense |  |  |  |
| Other Operating Expenses |  | \$34,200 |  |
| Administrative Expenses |  |  |  |
| Depreciation Expense | \$15,500 |  |  |
| Bad Debt Expense | \$ 4,970 |  |  |
| Total Administrative Expense |  | \$20,470 |  |
| Total Selling and Administrative Expense |  |  | \$ 54,670 |
| Income from operations |  |  | \$188,430 |
| Other Expenses and Losses Interest Expense |  |  | \$ 32,920 |
| Income before Income Taxes |  |  | \$ 155,510 |
| Income Tax |  |  | \$ 38,878 |
| Net Income |  |  | \$116,633 |

*Blue indicates prior year amounts
Figure 1.10 : Eads Projected Year X2 Income Statement

| Glenwood Heating, Inc. <br> Income Statement <br> For the year ended December 31, 20X2 |  |  |  |
| :---: | :---: | :---: | :---: |
| Net Sales |  |  | \$398,500 |
| COGS |  |  | \$183,800 |
| Gross Profit of Sales |  |  | \$214,700 |
| Selling Expense |  |  |  |
| Other Operating Expenses |  | \$34,200 |  |
| Administrative Expenses |  |  |  |
| Depreciation Expense | \$19,000 |  |  |
| Rent Expense | \$16,000 |  |  |
| Bad Debt Expense | \$ 994 |  |  |
| Total Administrative Expense |  | \$35,994 |  |
| Total Selling and Administrative Expense |  |  | \$ 70,194 |
| Income from operations |  |  | \$144,506 |
| Other Expenses and Losses Interest Expense |  |  | \$ 26,250 |
| Income before Income Taxes |  |  | \$118,256 |
| Income Tax |  |  | \$ 29,564 |
| Net Income |  |  | \$ 88,692 |

[^0]Figure 1.11 : Glenwood Projected Year X2 Income Statement

## Chapter 2

## Income Statement Analysis

## Executive Summary

Molson Coors is a large and profitable company. It has core operations of producing and selling beer in both the United States and in foreign countries. Because of the size of their corporation, they have invested in other ventures besides their core operations. For example, it has been a limited partner to the Colorado Rockies Baseball Club. When evaluating the company, it is important to consider which items on their financial statements are operating versus nonoperating as well as recurring versus nonrecurring. The future is predicted by the recurring operating items because they are expected to occur again in the future. This is why looking at return on net operating assets is an essential step when looking at company's future prospects. Molson Coors currently sees a 9.53 percent return on their net operating assets. In addition, their RNOA is rising from 7.25 percent in 2012. From the persistent income statement in Figure 2.1, earnings per share for basic weighted average shares is $\$ 3.98$ and earnings per share for diluted weighted-average shares is $\$ 3.96$. Investors can expect to see a fair return on their investments. Molson Coors is moving more towards their core operations by selling their interests in the Rockies and their joint ventures. These 'return to the basics' actions implies that operating and persistent income is that more important than outside investments. While there is some nonoperating income that will recur in the future, the operating is the best predictor.

## Classifications of Income

The three major classifications of an income statement are the operating section, the nonoperating section, and Irregular Items. An income statement that is classified will detail which items fall in each classification. Having a classified income statement means companies can provide more information about a company's profitability than an income statement without classifications would. Operating items relates to the core operations of the company. Nonoperating relates to income from investments other than the core operations. Irregular items are typically nonoperating and not recurring. These items do not predict a company's future. A persistent income allows for a better estimate of future income.

## Income Statement Items

Net Sales is the amount of revenue gained minus the excise tax for beer. Beer is a commodity that requires a tax by the customer. Molson Coors sell price includes the amount owed by the consumer for the tax. Gross sales is the revenue earned before deducting the excise tax. Since the tax is not the company's earnings it is deducted from sales giving the value of net sales. It is not written as an expense because it is the expense of the customer and not the company itself. Special Items are gains and losses that are not the core operations, but they can be tied back to operations. Items in this category include selling interest in a joint venture and restructuring employee and impairment of an asset. The other income item is related to gains and losses from completely unrelated transactions. While being a limited partner of the Colorado Rockies is good for advertising and hopefully boosts sales, it is not related to the core operations of producing and selling beer.

## Comprehensive Income

Comprehensive income will include gains and losses that may not be reported on the income statement, but they still affect stockholder's equity. The comprehensive income for 2013 is $\$ 760.2$ million. It is $\$ 192.9$ million dollars higher than Molson Coors' net income of $\$ 567.3$ million. There are several factors that go into the comprehensive income that give it the more desirable value, but the major addition is a $\$ 240.7$ million dollar gain from pension and other postretirement adjustments.

## Recurring versus Nonrecurring items

Special items is difficult to predict. Because there are a variety of transactions that get recorded to this account, it is not always nonrecurring. Selling their interest in the joint venture brought a gain that was recorded in special items. Since Molson Coors sold their interest in the venture, they do not have any more to sell and will not have a transaction to record in special items in 2014. Other transactions in special items include restructuring costs. This is a long-term product to reduce cost of goods sold and generate a higher profit, since this is an ongoing project, these gains will continually be recorded to the income statement. The amount will depend on the nature of the project that year. Other income is another difficult item to predict. It includes selling their interest in the Colorado Rockies Baseball Club. This is a one-time entry. Likewise, foreign exchange gains and losses will persist as long as Molson Coors operates internationally. Discontinued operations will also not be persistent due to the fact that the operations are no longer ongoing. Tax on the other hand is typically a recurring item. Molson Coors effective tax rate is 12.8 percent. We can expect a similar tax rate in the future. Their reduced tax rate is due to their foreign business. As seen in Figure 2.2, their tax rate increased because of a tax change in Serbia in 2012. There was also
a tax valuation allowance because of capital losses. These are nonrecurring events that will not affect the future tax rates. In Figure 2.1, persistent income totals $\$ 728.64$ million. By taking the average net operating assets, Molson's Coors RNOA is 9.53 percent as shown in Figure 2.3

## Nonoperating Income Statement Items

Interest income and expense are stem from taking out and extending loans. Though these loans are necessary to conduct business, they are not a part of the core operations. Other income (expense) attributed to other sources of gains and losses that are not a part of the core operations. One example is gains and losses from foreign exchange rates. Though required by foreign, federal, and state laws, taxes are still not a part of core operations. Because nonoperating income is a loss, it will reduce the tax effect of operating income by $\$ 21.77$. The net operating profit after tax is $\$ 885.02$ million.

## Nonoperating Balance Sheet Items

Figure 2.4 details Molson Coors balance sheet containing only operating items. There are several items on the balance sheet that do not stem from core operations. Other current assets represents a variety of assets that may or may not be operating. Since the company does not provide any detail as to which classification this is, the conservative approach would be to include it as nonoperating. As a result, the RNOA will be better represented by only operating items. As previously discussed taxes are not part of the core operations of Molson Coors, so deferred tax assent will also not be included as operating. Investment in MillerCoors is an investments in other ventures that are not part of the core operations of selling beer. Goodwill is not a part of the core operations and is considered nonoperating. As previously discussed with other current
assets, this item represents a variety of assets that may or may not be operating. The same conservative approach should be taken with other assets by including it in nonoperating. Again, the RNOA will be better represented by the operating assets with this approach. Derivative hedging instruments are not part of core operations. Deferred tax liabilities and unrecognized tax benefit has the same treatment as deferred tax asset and is considered nonoperating. As with interest income and expense, long term and short term debt are not a core operation of Molson Coors even if they are necessary to conduct business. Discontinued operations liabilities represent liabilities that are no longer a part of the core operations of the company. Other liabilities can represents a variety of liabilities that could be either operating or nonoperating, it is classified as nonoperating to keep the RNOA as only operating liabilities. This is the conservative approach. Once each item is determined to be operating or nonoperating, return on net operating assets can be calculated. In figure 2.5 , Molson Coors' return on net operating assets is calculated for 2012 and 2013. Net operating assets for 2013 are $\$ 8887.6$ million. Net operating assets for 2012 are $\$ 9689.7$ million.

| Molson CoorsPersistent Income StatementFor the years 2013, 2012 |  |  |
| :---: | :---: | :---: |
|  | $\underline{2013}$ | $\underline{2012}$ |
| Sales | \$5,999.60 | \$5,615.00 |
| Excise Tax | (\$1,793.50) | (\$1,698.50) |
| Net Sales | \$4,206.10 | \$3,916.50 |
| Cost of goods Sold | (\$2,545.60) | \$2,352.50 |
| Gross Profit | \$1,660.50 | \$1,564.00 |
| Marketing, Admin, and General Expenses | (\$1,193.80) | (\$1,126.10) |
| Equity Income in MillarCoors | \$539.00 | \$510.90 |
| Operating Income | \$1,005.70 | \$948.80 |
| Other Income (Expense) |  |  |
| Interest Expense | (\$183.80) | (\$196.30) |
| Interest Income | \$13.70 | \$11.30 |
| Total Other Income | (\$170.10) | (\$185.00) |
| Income from Continuing Operations Before Tax | \$835.60 | \$763.80 |
| Income Tax | \$106.96 | \$199.35 |
| Net Income from Continuing Operations | \$728.64 | \$564.45 |

Figure 2.1 Molson Coors Income Statement

| Molson Coors <br> Effective Tax Rate <br> For the years 2013, 2012 |  |  |  |  |  |
| :--- | ---: | ---: | :---: | :---: | :---: |
|  | $\underline{2013}$ | $\underline{2012}$ |  |  |  |
|  | $\$ 128.73$ | $\$ 247.64$ |  |  |  |
| Tax effect on operating income | $(\$ 21.77)$ | $(\$ 48.29)$ |  |  |  |
| Tax effect on nonoperating income | $\$ 106.96$ | $\$ 199.35$ |  |  |  |
| Total tax effect |  |  |  |  |  |

Figure 2.2 Molson Coors Tax Effects

| Molson Coors <br> Return on Net Operating Assets <br> Average for the years 2013 and 2012 |  |
| :--- | ---: |
| Average net operating assets | $\$ 9,288.65$ |
| RNOA | $9.53 \%$ |
| Operating profit margin | $14.75 \%$ |
| Net operating assets turnover | $64.59 \%$ |

Figure 2.3 Molson Coors Average RNOA

| Molson Coors <br> Operating Balance Sheet Accounts <br> For the years 2013, |  |  |
| :--- | ---: | ---: |
|  | $\underline{2012}$ |  |
| Operating Assets | $\underline{2013}$ | $\underline{2012}$ |
| Cash and Equivalents | $\$ 442$ | $\$ 624$ |
| Accounts and Notes Receivable |  |  |
| Trade | $\$ 573$ | $\$ 608$ |
| Affiliates | $\$ 31$ | $\$ 52$ |
| Note receivable | $\$ 124$ | $\$ 93$ |
| Total Inventory | $\$ 205$ | $\$ 214$ |
| Supplies | $\$ 30$ | $\$ 28$ |
| Properties | $\$ 1,970$ | $\$ 1,996$ |
| Intangibles | $\$ 6,825$ | $\$ 7,235$ |
| Notes receivable | $\$ 24$ | $\$ 26$ |
| Total | $\$ 10,224$ | $\$ 10,877$ |
|  |  |  |
| Operating Liabilities | $\$ 1,336$ | $\$ 1,187$ |
| Accounts Payable | $\$ 1,336$ | $\$ 1,187$ |

Figure 2.4 Molson Coors Balance Sheet

| Molson Coors <br> Return on Net Operating Assets <br> For the years 2013, 2012 |  |  |
| :---: | :---: | :---: |
|  | 2013 | 2012 |
| Operating Profit after tax | \$885.02 | \$702.11 |
| Net operating assets | \$8,887.60 | \$9,689.70 |
| RNOA by year | 9.96\% | 7.25\% |
| Operating profit margin by year | 14.75\% | 12.50\% |
| Net operating asset turnover by year | 67.51\% | 57.95\% |

Figure 2.5 Molson Coors RNOA

## CHAPTER 3

## Receivables and Bad Debt

## Types of Receivables

Receivables are claims the company has against customer's cash, goods, or services. There are three categories receivables can be classified. The three categories are accounts, trade, and note receivables. Accounts receivables are verbal promises for these claims. Trade receivables can be divided into accounts receivable or notes receivable. Unlike accounts receivables, notes receivables are written.

## Bad Debt Expense

A contra account is an account that has the opposite normal balance than the typical normal balance. The two contra accounts for Pearson are provision for bad and doubtful debt and provision for sales returns. In bad and doubtful debt, companies estimate the amount of receivables that will be uncollectable. In sales returns, the company estimates the portion of sales that could be returned to the company. In estimating these figures, a company should consider the past transactions with individual customers and the amount of time that has passed since a transaction. Percentage of sales is an income statement approach that calculates bad debt expense as a percentage of net credit sales. The resulting bad debt expense is added to provision for doubtful accounts to get the ending amount of provision for doubtful accounts. The balance sheet approach calculates ending provision for doubtful accounts as a percentage of receivables. The aging method has different percentages
based on how long the receivables have been on hand. Bad debt expense is found by subtracting the existing balance of provision for doubtful accounts from its ending balance. Aging is a more accurate approach because it also accounts for time. A company may not have originally expected a particular customer to be uncollectable. Credit is typically given by criteria and a customer that meets the criteria may be uncollectable.

## T- Charts and Journal Entries

*Amounts in Millions

At the beginning of the year, Pearson had $£ 72$ beginning balance in provision


Figure 3.3 Pearson Sales Returns T-chart for doubtful accounts. During the year exchange difference of $£ 5$. The amoul

| Sales Returns Expense | 425 |  | (Income Statement) |
| :---: | :---: | :---: | :---: |
| Provision for Sales Returns |  | 425 | 5 (Balance Sheet) |
| Provision for Sales Returns <br> Accounts Receivables | 443 |  | (Balance Sheet) |
|  |  |  | (Balance Sheet) |
| Figure 3.4 Pearson Sales Return Journal Entry |  |  |  |
| Gain on Foreign Exchange |  | 5 | (Income Statement) |
| Bad Debt Expense | 26 |  | (Income Statement) |
| Provision for Doubtful Accounts |  | 26 | (Balance Sheet) |
| Provision for Doubtfiul Accounts Accounts Receivable | 20 | $20$ | (Balance Sheet) (Balance Sheet) | Figure 3.2 Pearson Doutful Accounts Journal Entry Based on this information, figure 3.1 displays the T-chart to document this data and determine the ending balance for provision for doubtful accounts, while figure 3.2 displays the proper journal entries for these transactions. The Bad Debt Expense is an income statement account and is included in the operating expense section of the income statement. During the year, the provision for sales returns increased by $£ 425$. Customers returned $£ 443$ to Pearson. Figures 3.3 and 3.4 display the T-chart and journal entry for the sales return account.


| 5 | $£ 72$ |
| ---: | :--- |
| 5 | 26 |
| 20 | 3 |
|  | $£ 76$ |

Figure 3.1 Pearson Doubtful Account T-chart

Also during the year, credit sales were $£ 5624$. Pearson collected $£ 5202$ of for previous credit sales. Sales returns totaled $£ 443$, and $£ 20$ was written offs from bad

| Accounts Receivable |  |
| ---: | :--- |
| £1030 |  |
| 5624 | 5202 |
|  | 443 |
|  | 20 |
| $£ 989$ |  |


| Accounts Receivables <br> Sales <br> Cash | 5624 | (Balance Sheet) <br> (Income Statement) |  |
| :--- | :---: | :---: | :---: |
| $\quad$ Accounts Receivables | 5202 |  | 5624 |
| (Balance Sheet) |  |  |  |
| (Balance Sheet) |  |  |  |

Figure 3.6 Pearson Accounts Receivable Journal Entry

Figure 3.5 Pearson Accounts Receivable T-chart debts. Figures 3.5 and 3.6 display the T-chart and journal entry for these transactions.

## Uncollectable Receivables

Using the age of receivable approach, figure 3.7 calculates the estimated uncollectable receivables. This is the most accurate approach because it considers time as a factor in the likelihood a receivable will be collectable. Older receivables are less likely to be collected than newer receivables. An auditor would be comfortable with using this approach. Using net credit sales and total trade receivables, Pearson can determine the accounts receivable turnover as well average collection period as shown in figure 3.8. By creating shorter credit terms and implementing stricter credit policy, Pearson can continue to lower their collection period for accounts receivables. This will make them more competitive against McGraw Hill.

| Accounts Uncollectable Based on Age of Receivable |  |  |  |
| :--- | :---: | :---: | :---: |
|  | Trade <br> Receivables <br> Balance | Estimated <br> Percent <br> Uncollectible | Accounts <br> Estimated <br> Uncollectible |
| Within due date | $£ 296$ | $2 \%$ | 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 | $60 \%$ | 2.4 |
| More than 12 months past due date | 20 | $90 \%$ | 18 |
| Total | 1419 | $5.23 \%$ | 74.19 |

Figure 3.7 Pearson Age of Receivable Approach

| Accounts Receivable Turnover and Average Collection Period |  |  |
| :--- | :---: | :---: |
|  | 2009 | 2008 |
| Credit Sales, Net | $£ 5,624$ | $£ 4,811$ |
| Average Total Trade Receivables | 1446.5 | 1282.5 |
| Accounts Receivable Turnover | 3.89 | 3.75 |
| Average Collection Period | 93.83 | 97.33 |

Figure 3.8 Pearson Receivable Turnover and Collection Period

## CHAPTER 4

## Reporting Realizable Value

## Changes in Ownership

Throughout the year, Graphic Apparel changed quite a bit. The biggest change is the change in ownership. Nicki bought the company in January of 2014. With her new position, Nicki changed some policies. As a younger designer, she created edgier designs that led to a new customer base while reducing the old conservative customer base. These new customers are not as reliable for payment. In previous years, the main operation of GAC was the graphic shirts sold to retailers while the secondary operation was custom shirt sales. Nicki balanced out these operations by increasing custom sales. Lastly, Nicki used a leveraged buyout to acquire the company, creating long-term debt and a bank contract. Along with the IRS, the bank became a user of the financial statements and requires the financial statements to adhere to U.S. GAAP principles. GAC must also maintain a minimum current ratio of 1 . Failure to meet these standards could result in an external audit or, more harshly, repossession company's assets.

## Revenue Recognition

While the new style of shirts has attracted new retailers, they are not as marketable to the end consumers. This could be problematic with GAC's full refund policy. The new style has also pushed constant retailers away. The loss of constant customers and lack of sales in retail stores could result in a decline of sales. This decline, however, could be offset by the exponential growth in custom orders.

According to GAAP revenue recognition principle, revenue is recognized in the period when it is earned regardless of when payment is received. Revenue is earned when the company completes its obligation to the customer. If there is high chance the goods will be returned, revenue should not be recognized until after the return period ends. GAC records revenue from graphic orders when the shirts are delivered and revenue from custom orders when payment is received. The graphic shirts recognition is appropriate when refunds are not probable. Custom orders recognition is appropriate under a cash basis accounting system. However, neither of these circumstances applies to GAC. There is a high probable return for graphic shirt orders.

Furthermore, the cash basis accounting system is not acceptable under GAAP. The alternative time to record custom orders revenue is when the company delivers the shirts to the customer. As previously stated, the correct way to recognize revenue under GAAP is when the company has completed the obligation to the consumer. In this case, the obligation that GAC has to the consumer is completed when they finish the production of the shirts and deliver the order to the consumer, assuming an f.o.b. destination policy. Recognizing revenue at the proper period will affect the financial statements and the current ratio of GAC.

By creating a provision for returns for the graphic shirts, revenue and accounts receivable will be decreased. A decrease in the current assets will decrease the current ratio. Further, creating an unearned revenue account for the custom orders will increase current liabilities. An increase in current liabilities will result in a decrease in the current ratio. While this is not necessarily beneficial for the company, it is the correct policy according to GAAP.

## Account Receivable Realizable Value

GAAP requires accounts receivable to be reported at net realizable value. Net realizable value is the amount that a company can expect to collect from its customers. GAC uses the direct write off method to account for uncollectable accounts receivable. While this is acceptable for tax purposes, this method is unacceptable under GAAP. GAAP requires that expenses are recognized in the period in which they are incurred. It also requires an allowance for doubtful accounts, so that accounts receivable can be reported at net realizable value. The direct write off method fails to report an allowance for doubtful accounts and fails to recognize bad debt expense in the proper period. GAC could use the direct write-off method in prior years because the only user of the financial statements was the IRS for tax purposes.

Since GAC finances through a bank, they are now required to submit financial statements that adhere to GAAP, meaning that the direct write off method is no longer acceptable. This change is also important given that the new customer base is less reliable. In previous years, GAC could expect collectable debts to be paid within 30 days, but the new customers are concerned they will not be able to pay on time. This change will lengthen the average accounts receivable collection period. GAC should adopt an allowance method. The allowance allows accounts receivable to be reported at net realizable value and deducts expenses as they are incurred. While this could have a negative effect on the current ratio, it will abide by the contract set forth by the bank. As previously stated, adopting the allowance method as their bad debt expense method will allow them to continue good relations with the bank. The allowance method would reduce the current assets and as a result would reduce the current ratio. Figure 4.1 is
the note that should be included with the financial statements. It reports accounts receivable at net realizable value.

## RETURNS

GAC reports returns in the month that the goods are returned. During this year, there was water damage that stained some of the raw material shirts. Nicki was able to incorporate the stains into the designs of the graphic shirts, but there is still a high chance these could be returned. In addition, GAC's full refund policy allows retailers to return unsold merchandise. With new styles there is a high chance customers will dislike the new look and choose not to purchase them. GAAP recommends setting up a provision for sales returns when the returns are probable, easily estimated, and material. In GAC's case, return is probable and material, and GAC will need to create an allowance for sales returns. For GAC, it is better to account for returns in an allowance method. Since the return period falls after year-end, it is important to include an allowance on the financial statements. This will give users a clear picture of the financial position of the company. Creating the allowance will reduce revenue and as a result, reduce net income. It will not affect current ratio because the chance will only affect income statement accounts.

## Inventory

In reporting inventory, GAAP recommends the lower of cost and market method. This means companies value inventory at either cost or cost to replace, whichever is lower. GAC has been reporting its inventory under the LCM method. This is acceptable under GAAP, but the method should continue to be disclosed in the notes of the financial statements as in figure 4.2. After including the note, GAC can continue
to use this method while keeping up the conditions of the contract. The financial statements and the current ratio will not be affected since there is not a change.

## Effect on Current Ratio

The current gross profit margin is 48 percent. This is very high, but it is a decline from the previous year's gross profit margin. The selling price is high, but as the cost continues to rise, the gross profit margin will fall. The current ratio before adjustments was 1.35 . After the changes the ratio becomes .9567 , which is below the bank minimum. In Figure 4.2, the effects of the changes on current assets and current liabilities are shown. Nicki needs to increase GAC current assets by $\$ 2,280$ or decrease current liabilities by $\$ 2,280$ to reach a current ratio of 1 . To do so she could increase cash by selling more merchandise. She could reduce current liabilities by completing delivering the custom orders owed to consumers. While these actions will also affect equity, the focus should be on increasing current assets and lowering current liabilities. Nicki should first implement these new policies to adhere to GAAP guidelines. Secondly, she should work on current assets and current liabilities to get the correct current ratio. I would also suggest hiring a part time account midyear to insure the financial position of the company will be on good standing at year-end.

| Note 1:Receivables |  |
| :--- | :---: |
|  | $\underline{2014}$ |
| Accounts Receivable from retail stores | $\$ 30,000$ |
| Less: Allowance for Doubtful Accounts | $(\$ 3,000)$ |
| Less: Sales Returns | $(\$ 15,000)$ |
| Total Accounts Receivable | $\$ 12,000$ |

Figure 4.1 GAC Receivable Note to Financial Statement

| Note 2: Inventory |  |
| :--- | :---: |
|  | $\underline{2014}$ |
| Plain Shirts and inks, at cost | $\$ 5,100$ |
| Graphic design, at cost | $\$ 9,800$ |
| Add Returned Graphic design, at cost | $\$ 15,000$ |
| Custom Shirts in production, at cost | $\$ 4,500$ |
|  | $\$ 34,400$ |

Figure 4.2 GAC Inventory Note to Financial Statement

| Graphic Apparel Corporation <br> Balance Sheet <br> At August 31, 2014 |  |
| :--- | :---: |
| Current Assets | 2014 |
| Cash and Cash Equivalents | $\$ 4,000$ |
| Accounts Receivable (See Note 2) | $\$ 12,000$ |
| Inventory (See Note 3) | $\$ 34,400$ |
| Total Current Assets | $\$ 50,400$ |
| Current Liabilites |  |
| Accounts Payable | $\$ 36,100$ |
| Accrued Liabilites | $\$ 8,680$ |
| Taxes Payable | $\$ 400$ |
| Unearned Revenue | $\$ 7,500$ |
| Total Current Liabilites | $\$ 52,680$ |
| Current Ratio | 0,96 |

Figure 4.3 GAC Balance Sheet

## CHAPTER 5

## Estimates in Accountancy

## Useful Life Calculation

Calculating the useful life of an asset is an estimate. As with any estimate, companies will have different evaluations even for the same product. Differences in estimates could occur for a number of reasons. One reason for this could be repair and maintenance policies. If a company repairs a plane more often than another company, the plane could last longer. Another reason could be safety policies. Different companies will have different policies on how long a plane should safely be operational. Unfortunately, earnings management could be another factor in deciding useful life. If a company wants to make their assets appear better than actuality, they could "estimate" a higher number. In figure 5.1, the same aircraft with the same purchase price is evaluated for three major airlines. Each airline uses categories to determine the useful of a piece of equipment, but the requirements for each category differs among airlines. The category range is determined by the useful lives of other assets. The useful life is important in calculating annual depreciation. The amount of depreciation taken each year will determine the net value of the asset. In figure 5.1, the accumulated depreciation differs for each airline due to different useful life calculations.

## Determining Sale Price

The airlines have all decided to sell their respective aircrafts. They have two options, sale price I and sale price II. In figure 5.1, the sale price for each option as well as the potential gain or loss on the sale is calculated. If all three airlines had to pick the same option, sales I would be the most realistic option. In this option, the sale price closely resembles the book value at the time of sale for each aircraft. If each airline could pick either option regardless of another airline's choice, then North West would pick sale price II while United picks sale price I because the airlines would both receive a gain on the sale. Delta would have the same price for either option.

## Using Estimates for Fraudulent Activities

Waste Management executives committed fraud by falsifying financial statements and inappropriately managing earnings. These fraudulent acts began in 1992 and continued into 1997. By the time the company was required to issue a restatement, they had overstated profits by $\$ 1.7$ billion. The company ended up losing $\$ 6$ billion dollars and stock price fell 33 percent. To manage earnings, the company incorrectly reported several estimated accounts. It particularly changed depreciation estimates by increasing the useful life of a truck and increasing the salvage value. This meant that as time passed the company expected to get a higher return on the truck at disposal. It did not record the expenses as landfill value decreased or expenses for impairments of landfill development projects. They capitalized other expenses as well. While they inflated reserves at acquisition, they did not create reserves for income taxes. These steps led to an inflated net income.

| North West |  |  | Delta |
| :--- | :---: | :---: | :---: |
|  | $\$ 75,000,000$ | $\$ 75,000,000$ | $\$ 75,000,000$ |
| Book Value at $1 / 1 / 05$ | $\$ 3,750,000$ | $\$ 3,750,000$ | $\$ 3,750,000$ |
| Residual | $\$ 71,250,000$ | $\$ 71,250,000$ | $\$ 71,250,000$ |
| Depreciable Amount | $\$ 15$ | $\$ 20$ | $\$ 28$ |
| Useful Life | $\$ 4,913,793$ | $\$ 3,562,500$ | $\$ 2,590,909$ |
| Annual Depreciation | $\$ 19,655,172$ | $\$ 14,250,000$ | $\$ 10,363,636$ |
| Accumulated Depreciation at $12 / 31 / 08$ | $\$ 55,344,828$ | $\$ 60,750,000$ | $\$ 64,636,364$ |
| Book Value 12/31/08 | $\$ 55,000,000$ | $\$ 60,000,000$ | $\$ 65,000,000$ |
| Sale Price I | $(\$ 344,828)$ | $(\$ 750,000)$ | $\$ 363,636$ |
| Gain (Loss) on Sale I | $\$ 60,000,000$ | $\$ 60,000,000$ | $\$ 60,000,000$ |
| Sale Price II | $\$ 4,655,172$ | $(\$ 750,000)$ | $(\$ 4,636,364)$ |
| Gain (Loss) on Sale II |  |  |  |

Figure 5.1 Useful Life and Sale Price Options

Furthermore, Waste Management executives knew the earnings management was fraudulent as they took steps to cover up their actions. The first way they planned to cover up their acts was through "netting." Netting uses one-time gains to offset expenses. This hid some of the expense from auditors and made it difficult to detect fraud in the financial statements. The CEO was the main driver behind these transgressions, but most of the top-level executives were aware of the situation. The adjustments mainly occurred at the top level of accounting. The CEO would set the target goals and then would adjust the accounts to hit the goals. The boost in profit led to high performance based bonuses. As time passed, the overstatement grew and the company had to explore new avenues to hide the fraud. One of these avenues was geography entry. By rearranging the expenses on the income statement, they could further disguise the false accounts. The CEO falsified disclosed notes and kept up the guise in press releases.

Eventually their auditor stepped in. Arthur Andersen proposed the Action Steps that would allow Waste Management to improve their accounting standards, but did not require prior period adjustments for the errors previously made. This agreement was also not legal since GAAP requires for prior period adjustments due to errors. Arthur Andersen signed off on the fraudulent financial statements knowing that the profits were overstated. Though the company agreed with Action Steps deal set up by AA, they did not abide by the steps because doing so prevented them from hitting profit targets. By 1996, the impact of the fraud exceeded $\$ 100$ million.

Each passing year required more and more manipulation of numbers to hide previous year's misstatements. The mountain of fraud began to fall in 1997. The CEO was replaced with a new chief executive officer who quit after 4 months after seeing the accounting records. By February 1998, there was a full investigation of the fraud. The restatement of financial reports showed an overstatement of $\$ 1.7$ Billion. The company suffered a loss of $\$ 6$ Billion. Waste Management was bought out by a smaller competitor and the headquarters was moved to Texas. The individuals responsible had a total of ill-gotten gains of roughly $\$ 28.7$ million.

Arthur Andersen played a crucial role in the downfall of Waste Management. Most of the top-level executives previously worked for Arthur Andersen and the accounting firm had audited Waste Management since 1971. Due to the gravity of the fraud and that the auditors either knew of the accounting misstatements or recklessly did not know of the fraud, the SEC held the firm responsible for the charges. Four partners were banned from practicing accounting. Allgyer was required to pay a fine of $\$ 50,000$ and was given right of reinstatement after five years. Maier was required to pay a fine of $\$ 40,000$ and was given the right of reinstatement after three years. Cercavschi had to pay a fine of $\$ 30,000$ and was given the right of reinstatement after three years. Kutsenda was not required to pay a fine and was given the right of reinstatement after one year. Though firms are not typically held responsible for finding fraud, AA was held responsible because they knowingly signed financial reports that contained misstated information.

## Chapter 6

## Liabilities and Contingencies

## The Purchase

In 2007 BigMix sold a piece of property to Construct. There was a provision for potential environmental liabilities in the sales and purchase agreement, but none of the purchase amount was held in escrow. At the time of the purchase, under GAAP, Construct is not required to record a liability. GAAP does not have a policy on purchases. Under IFRS, Construct is not required to record a liability. In 2008, BigMix filed for bankruptcy. Construct tried to get an interest in BigMix, but was unsuccessful. Under GAAP, Construct is not required to report a liability because the attempt was unsuccessful. They do not owe anything to BigMix shareholders. Under IFRS, Construct is not required to report a liability because the attempt was unsuccessful. They do not owe anything to BigMix shareholders.

## The EPA Investigation

In 2009, the EPA began investigating the property for contaminations. It determined that there was a 60 percent probability, Construct would be required to pay $\$ 250,000$. Under GAAP, the liability should be recorded. Since the probability is 60 percent, it is highly probable that the loss will occur. The liability should be recorded at $\$ 250,000$. Under IFRS, the liability should be recorded. IFRS is very conservative and if the probability is greater than 50 percent, the loss should be recorded for the estimated amount of $\$ 250,000$. In 2010, Construct files a suit against BigMix to pay
for a study for the property. The total cost was $\$ 400,000$ for the study and legal fees, and Construct filed for a portion of that from BigMix. The probability is not reasonably estimated. Under GAAP, Construct does not have to record the liability because it is not highly probable and it cannot be reasonably estimated. Since the contingency does not meet this condition, Construct is not required to record it in its financial statements, but they should disclose it in the notes. Under IFRS, Construct would be required to record the liability of $\$ 400,000$. Because it is not probable that they will win the suit, they must include the contingency in their financial statements.

## The Lawsuit

In 2011, the study created a remediation plan for the contaminated property. The plan would cost $\$ 1.5$ million. The outcome of the suit is not reasonably estimated. Under GAAP, Construct should record a liability of $\$ 1,500,000$. Since the outcome of the suit is not easily estimated, Construct should include the total liability to their financial statements. Under IFRS, Construct should increase the contingency by $\$ 1,100,000$. This will bring the contingency total to $\$ 1,500,000$. Construct should record the contingency because the possibility of winning the suit is not yet probable. In 2012, there is a 75 percent chance the outcome of the suit was that BigMix owed Construct \$1 million for the remediation plan. Under GAAP, Construct should record the gain contingency because it is highly probable that they will win the suit and the gain can be reasonably estimated. Their books would report a gain contingency of $\$ 1,000,000$ and a loss contingency of $\$ 500,000$. Under IFRS, Construct should not record the gain. Gain contingencies are only allowed when the gain is almost certain. Because 75 percent is not almost certain, Construct should keep their loss contingency at $\$ 1,500,000$.

## CHAPTER 7

## EQUITY

## Common Shares

GlaxoSmithKline and Merck \& Co are both large international companies in the healthcare industry. GlaxoSmithKline is a British based company and is reported in pounds $(£)$ as well as International Financial Reporting Standards (IFRS). Merck is an American based company and is reported in dollars (\$) as well as U.S GAAP. GlaxoSmithKline has authorized and issued ordinary stock as detailed in figure 7.1. Similarly, Merck has authorized and issued common stock as detailed in figure 7.2. Given that the companies use two different accountancy standards, their stock portfolio will differ as well. When evaluating GlaxoSmithKline's financial documents, it is important to note that "Share Capital" is similar to U.S. GAAP's "Par Value" while "Share Premium Account" is similar to U.S. GAAP's "Additional Paid in Capital."

## DIVIDENDS

Dividends are an incentive for investors to invest in a company. Non-dividend paying companies are only for growth firms, where an investor can expect a high return on their investment based on an increase in the value of the company. Dividends cause the stock price to drop because the stock price is the sum of the expected value of all future dividends, so when a dividend is paid, the total of expected future dividends is decreased. As seen in figure 7.3, Merck declared
$\$ 3,310.7$ million in dividends while GlaxoSmithKline declared $£ 2,793$ million in figure 7.4. Merck also created a payable while GSK paid fully in cash for the dividends. GSK reconciles the dividend declared over time in figure 7.5.

## Treasury Stock

Treasury stock are shares that a company has repurchased. There are several reasons why a company would repurchase their own stock. The first being that stock is undervalued. If a company feels their stock is undervalued, they can create a false demand by purchasing their own shares. Repurchasing stock will also increase earnings per share. Reducing the amount of outstanding shares will increase the amount earned by each share. The use of treasury stock can also be used to privatize ownership as to prevent a hostile takeover. A hostile takeover is when an outside investor gains a controlling interest in the company by purchasing a large sum of shares. If the company purchases their own shares, they would prevent others from doing so. Lastly, treasury stock can be used as a form of compensation to employees. Providing stock options for employees is a way to incentive them to gain higher profits for the company. Merck's uses the cost method to record treasury shares. Two major indicators demonstrate this method. First, the treasury shares are reported at the bottom of stockholder's equity. Second, treasury shares are recorded at cost instead of par value. Merck repurchased a total of 26.5 million shares during 2007. To repurchase these shares, Merck paid $\$ 1,429.7$ million or $\$ 53.95$ per share. Adhering to U.S. GAAP, Merck reports treasury shares as a contra equity account instead of an asset. GlaxoSmithKline repurchased a total 285.034 million shares. 269 million were held as treasury while the other 16 million were retired. GlaxoSmithKline spent a total of $£ 3,537$ million repurchasing treasury shares for an average of $£ 13.14$ per
share. They also spent $£ 213$ million on retired shares for an average of $£ 13.31$ per share. When comparing GSK to U.S. GAAP, it is important to know that their "Movement in Equity report" is similar to U.S. GAAP's Statement of Stockholder's Equity. GSK reports repurchasing stocks as the journal entry in figure 7.6. The major difference from U.S. GAAP is that it does not reference a treasury stock account nor does it deplete additional paid in a capital accounts. In figure 7.7, there is an overall comparison of Merck and GSK stock.

| Merck's Common Shares |  |  |
| ---: | ---: | :---: |
| (As of December 31, 2007) |  |  |
| Authorized Shares | $5,400,000,000$ |  |
| Issued Shares | $2,983,508,675$ |  |
| Dollar Value of Common Shares <br> (\# of issued shares*par value (\$0.01)) | $\$$ |  |
| Treasury Shares | $29,835,086.75$ |  |
| Issued and Outstanding | $811,005,791$ |  |
| Market Capitalization | $2,172,502,884$ |  |
| (Outstanding Shares*current market price (\$57.61)) | $\$ 125,157,891,147.24$ |  |

Figure 7.1 Merck's Common Shares

| GlaxoSmithKline's Ordinary Shares |  |
| ---: | ---: |
| (As of December 31, 2007) |  |
| Authorized Shares | $10,000,000,000.00$ |
| Issued Shares | $6,012,587,026.00$ |
| Free issue Shares (Outstanding) | $5,373,862,962.00$ |
| Treasury Shares | $504,194,158.00$ |

Figure 7.2 GlaxoSmithKline's Common Shares

| Merck's Common Dividend Activity for 2007 <br> (in millions) |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Dividends Declared <br> Cash | $\$$ | $3,310.7$ |  |  |
| Dividends Payable |  |  | $\$$ | $3,307.3$ |

Figure 7.3 Merck's Dividend Activity

| GlaxoSmithKline's Ordinary Dividend Activity for 2007 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| (in millions) | 年

Figure 7.4 GlaxoSmithKline's Dividend Activity

| GlaxoSmithK line's Divided Declared <br> Reconciliation (in millions) |  |  |
| :--- | :--- | ---: |
| 2006 Third Interim | $£$ | 671 |
| 2006 Fourth Interim | $£$ | 785 |
| 2007 First Interim | $£$ | 670 |
| 2007 Second Interim | $£$ | 667 |
| Total | $£$ | 2,793 |

Figure 7.5 GlaxoSmithKline's Dividend Declared

| GlaxoSmithKline's Repurchase Activity for 2007 <br> (in millions) |  |
| :--- | :--- |
| Retained Earnings <br> Cash | 3750 |

Figure 7.6 GlaxoSmithKline's Repurchase Activity

|  | Merck (\$) |  | GlaxoSmithKline (£) |
| ---: | ---: | ---: | ---: |
|  | 2007 | 2006 | 2007 |
| Dividends Paid | 3307.3 | 3322.6 | 2793 |
| Shares Outstanding | $2,172.5$ | 2167.8 | 5373.9 |
| Net Income | 3275.4 | 4433.8 | 6134 |
| Total Assets | 48350.7 | 44569.8 | 31003 |
| Operating Cash Flows | 6999.2 | 6765.2 | 6161 |
| Year-end Stock Price | 57.61 | 41.94 | 97.39 |
| Dividends per share | $\$ 1.52$ | $\$ 1.53$ | $\$ 0.52$ |
| Dividend Yield | $3 \%$ | $4 \%$ | $1 \%$ |
| Dividend Payout | 1.01 | 0.75 | 0.46 |
| Dividend to total assets | 0.07 | 0.07 | 0.09 |
| Operating Cash Flow | 0.47 | 0.49 | 0.45 |
| Dividends to Oper |  |  |  |

Figure 7.7 Merck and GlaxoSmithKline Stock Activity

## CHAPTER 8

## Securities

## Trading Securities

Trading securities are investments in debt or equity that are purchased to sell in the next year. As the company holds the investment, they will receive dividend income. If it is a good investment, it will increase in value over time. The gain from this increase is not realized until the investment is sold.

To record a $\$ 1.00$ dividend received from the investment, a company would make the journal entry in figure 8.1.


Figure 8.1 Dividend Received
To record a $\$ 1.00$ increase in the value of a trading security investment, a company would make the journal entry in figure 8.2.

| Investment | \$1 |  |
| :---: | :---: | :---: |
| Unrealized Holding Gain | $\$ 1$ |  |

Figure 8.2 Increase Investment Value

## Security Available-For-Sale

Securities available-for-sale are similar to trading securities in that they are debt or equity investments purchased with the intent to sell, but they will be held for more than a year. Like trading securities, SAFS will receive dividend income and increase in value overtime.

To record a $\$ 1.00$ dividend received from the investment, a company would make the journal entry in figure 8.1.

| Cash | $\$ 1$ |  |
| :--- | :--- | :--- |
| Dividend Income |  | $\$ 1$ |

Figure 8.1 Dividend Received

| Investment | $\$ 1$ |
| :---: | :---: |
| Accumulated Gain |  |$\quad \$ 1$

Figure 8.3 Increase SAFS Value
To record a $\$ 1.00$ increase in the value of a security available-for-sale investment, a company would make the journal entry in figure 8.3.

## SECURITIES HELD-TO-MATURITY

While securities held-to-maturity are debt investments, they were purchased to be held until the maturity date of the investment. Because equity investments do not have a maturity date, they cannot be classified in this category. These securities are reported at amortized cost instead of fair value like trading or available-for-sale securities, so a $\$ 1$ dollar increase will not have a journal entry. Gains and losses will be recorded on the sale.

## State Street

*Amounts in Millions
As of the $12 / 31 / 12$, State Street's balance of the trading account asset is $\$ 637$.
Since trading account assets are reported at fair market value, we can assume the market value of these securities are $\$ 637$. If the unadjusted trial balance of trading account assets was $\$ 552$, State Street would have made the journal entry in figure 8.4 to bring the account to fair market value.

| Investment | $\$ 85$ |  |
| :---: | ---: | :---: |
| Unrealized Holding Gain | $\$ 85$ |  |

Figure 8.4 State Street Value Adj
Investment held-to-maturity balance at 2012 year-end is $\$ 11,379$, however the fair value of the securities is $\$ 11,661$. Because securities held-to-maturity are
reported at amortized cost, the amortized cost is $\$ 11,379$. Amortized cost is the original cost of the security adjusted for an amortized discount or premium. The amortized cost will either be less than or more than the acquisition cost depending on whether there was a discount or premium. In this case, we can determine that there was originally a discount because the amortized cost of the security rises from 2011 to 2012. A discount or premium is determined at the time of purchase. While the fair market value will change over the life of the security, the discount or premium will not be changed except for amortization. The fair market value of these securities has grown since State Street purchased the security. Since these ware held-to-maturity, there will not be an adjusting entry to account for the change in fair value.

The 2012 year-end balance for investments available-for-sale is $\$ 109,682$. Since these securities are available-for-sale, they are reported at the fair value of the security. At 12/31/12, the net unrealized gain for State Street's securities available-for-sale is $\$ 1,119$. The net realized gain for State Street's securities available-for-sale is $\$ 55$. The realized gain will be reported in the nonoperating section of the income statement, and the amount affects net income before taxes.

During the 2012 year, State Street made many investments. First, State Street purchased $\$ 60,812$ securities available-for-sale. Then, they sold $\$ 5,411$ SAFS for \$5,399 cash. The SAFS sold had an unrealized holding gain of \$55 at the time of sale. Figures 8.5 and 8.6 contain the journal entries for purchasing and selling the securities. At the beginning of the fiscal year, Net unrealized gains totaled $\$ 181$, and at the end of the fiscal year the account totaled $\$ 1,119$. Using the T-chart in figure
8.7, the amount on hand is $\$ 1,367$. The unrealized holding gains from the sale would increase investment activity in the cash flow statement.

| Debt Investment <br> Cash | $\$ 60,812$ |  |
| :--- | :--- | :--- |

Figure 8.5 State Street SAFS Purchase

| Unrealized Holding Gain | $\$ 67$ |  |
| :--- | ---: | :--- |
| Cash | $\$ 5,399$ |  |
| Debt Investment |  | $\$ 5,411$ |
| Realized Gain from Sale |  | $\$ 55$ |

Figure 8.6 State Street SAFS Sale

| SAFS Net Unrealized Gain (Losses) |  |
| ---: | ---: |
| $\$ 181$ <br>  <br> $\$ 67$ |  |
|  | $\$ 1,367$ |
|  | $\$ 1,119$ |

Figure 8.7 State Street Unrealized Gain

## CHAPTER 9

## Revenue Recognition

## The Middleman Problem

Groupon's business model is to play the middleman between the consumer and retailers. Groupon is a "social media" outlet that allows subscribers to express interest in products or services. Once a level of interest is met, a Groupon discount voucher is issued and the prices is split between Groupon and the company who will supply the goods or services. Similar to Amazon, Groupon utilizes the internet to make these connections. Amazon is a company that can also act as a middleman by allowing companies to sell through their website. It differs from Groupon in that Amazon sells a product directly to the customer. Customers will never have to interact with the retailer in this case. Amazon also sells its own products. Wal-Mart also uses E-commerce to boost sales; however, they only sell their products online. An area of risk is ownership right to the products. When companies are acting as a middleman, it can be difficult to determine who actually owns the product at what time. If a product is listed on Amazon's website, does Amazon own the product at that point or not? This risk flows into the financial reporting because it makes it hard to determine many elements of the financial statements. If a company believes to have ownership rights and does not, then assets may be overstated. Determining when to recognize revenue also becomes a challenge.

For Groupon to be successful, it needed to grow at a rapid rate, but which rate is more important to analyze? Figure 9.1 contains three different ways to measure Amazon's growth from 1997 until 2010.

## Gross Method versus net Method

It has been stated that "Revenue and revenue growth are more important than income and income growth for new businesses, especially in the new-age economy."

However, Amazon's growth implies differently. Net Income the increase and decreases in net income are reflected in the stock price. While revenue is steadily growing, net income may not, and this stunts the growth in the next period. Groupon splits revenue between itself and the retailer the voucher applies to, but Groupon does not give this revenue to the retailer until the customer uses the voucher. There is a time gap between receiving the revenue from the customer and fulfilling the obligation to the retailer. This gap raises questions on how to report revenue. Under the gross method, Groupon would record the journal entry in figure 9.2

| Cash | xxx |  |
| :--- | :--- | :--- |
| Revenue |  | xxx |
| Cost of Goods Sold | xxx |  |
| Accounts Payable |  |  |

Figure 9.2 Groupon Gross Method
Under the net method, cost of goods sold is not recorded because the only cost associated with the voucher in this case is the amount owed to the retailer. The

| Cash | xxx |
| :--- | ---: |
| Revenue | xxx |
| Accounts Payable | xxx |

Figure 9.3 Groupon Net Method journal entry in figure 9.3 shows that revenue is reduced by the amount owed.

The common size income statement for 2009 and 2010 in figure 9.4 display how great the difference can be between using the gross and the net method.

| Amazon Growth <br> 1997- 2010 |  |  |  |
| ---: | ---: | :---: | ---: |
| Year | Stock Price | Revenue | Net Income |
| 2010 | $\$ 180.00$ | $\$ 34,204,000,000$ | $\$ 1,152,000,000$ |
| 2009 | $\$ 134.52$ | $\$ 24,509,000,000$ | $\$ 902,000,000$ |
| 2008 | $\$ 51.28$ | $\$ 19,166,000,000$ | $\$ 645,000,000$ |
| 2007 | $\$ 92.64$ | $\$ 14,835,000,000$ | $\$ 476,000,000$ |
| 2006 | $\$ 39.46$ | $\$ 10,711,000,000$ | $\$ 190,000,000$ |
| 2005 | $\$ 47.15$ | $\$ 8,490,000,000$ | $\$ 359,000,000$ |
| 2004 | $\$ 44.29$ | $\$ 6,921,000,000$ | $\$ 588,000,000$ |
| 2003 | $\$ 52.62$ | $\$ 5,264,000,000$ | $\$ 35,000,000$ |
| 2002 | $\$ 18.89$ | $\$ 3,933,000,000$ | $(\$ 149,000,000)$ |
| 2001 | $\$ 10.82$ | $\$ 3,122,433,000$ | $(\$ 567,277,000)$ |
| 2000 | $\$ 15.56$ | $\$ 2,761,983,000$ | $(\$ 1,411,273,000)$ |
| 1999 | $\$ 76.13$ | $\$ 1,639,839,000$ | $(\$ 719,968,000)$ |
| 1998 | $\$ 53.54$ | $\$ 609,819,000$ | $(\$ 124,456,000)$ |
| 1997 | $\$ 5.02$ | $\$ 147,787,000$ | $(\$ 31,020,000)$ |

Figure 9.1 Amazon Growth

Using measures such as gross margin and asset turnover, it is easy to see how the gross method inflates revenue and cost of goods sold. This actually reduces the gross margin ratio.

Because of the inflated revenues, Groupon used the gross method to record revenues, but the gross method did not necessarily reflect the reality of the transaction. In 2010, the difference resulted in a difference of 400 million in revenue. The SEC did not agree with the gross method. Groupon felt that it was the primary obligor to the customer, and therefore all of the revenue from the sale should be revenue. The SEC debunked that reasoning by using the Groupon website against it. Groupon openly states that they do not have an obligation to deliver0 goods and services should a retailer back out on their obligation. This weakens the primary obligor stance. The SEC did not allow the gross method.

## Return Reserve

In addition, Groupon offers a right of return on its vouchers. This further complicates revenue recognition. Under U.S. GAAP, Groupon should create a reserve for the estimated returns. This estimation should be based off past returns. Groupon failed to create this reserve. Instead, they would write off revenue as returns occur. This is improper accounting. Returns should be estimated and put into a contra revenue account. When the expiration of the return occurs, Groupon can include it in revenue.

This lack of reserve caused a major problem for Groupon in 2012. When Groupon offered a Lasik eye surgery voucher at the end of 2011, many customers who purchased the voucher did not realize that there were requirements they must meet to have the surgery. In 2012, most of the customers returned their voucher.

Without a proper reserve, Groupon had to restate its 2011 fourth quarter financial statements. This action decreased revenues by $\$ 14.3$ million and operating income by $\$ 30$ million. Groupon restated the financial statements by increasing the amount of reserve. This meant that cash was not a factor in the restatement. Without involving cash, Groupon avoided a reduction in operating cash flow.

| Groupon Common Size Income Statement <br> For the year ended, 2009 and 2010 |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: |
|  | 2009 |  |  |  |
|  | 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 | $15.13 \%$ | $33.79 \%$ | $36.89 \%$ | $90.86 \%$ |
| G \& A Expense | $24.67 \%$ | $44.14 \%$ | $32.79 \%$ | $68.17 \%$ |
| Other Expenses | $0.00 \%$ | $0.00 \%$ | $28.48 \%$ | $64.94 \%$ |
| Net Loss | $-4.41 \%$ | $-7.52 \%$ | $-57.95 \%$ | $-134.26 \%$ |
| Net Loss to common | $-22.76 \%$ | $-47.72 \%$ | $-63.96 \%$ | $-145.83 \%$ |
| EPS (Basic) | $-0.13 \%$ | $-0.28 \%$ | $-0.37 \%$ | $-0.85 \%$ |
|  |  |  |  |  |
| Gross Margin | $35.86 \%$ | $69.66 \%$ | $39.25 \%$ | $89.61 \%$ |
| Asset Turnover | 2.03 | 0.97 | 1.87 | 0.82 |

Figure 9.4 Groupon Common Size Income Statement

## CHAPTER 10

## Income Tax

## Book Income versus Taxable Income

Book Income is often referred to as pretax financial income. Because FASB creates standards for financial income and IRS creates code for tax income, these numbers can be different. Expenses and revenues that may qualify for financial income may not be deductible or recognizable for tax income. ZAGG refers to book income as "Income before Provision for Income Taxes." The differences book income and taxable income can be grouped in two categories: permanent and temporary.

Permanent differences refer to income statement items that will never be considered when computing the tax liability. An example would be U.S. government investments. As an incentive for investing in government entities, an investor is not required to pay taxes on the income received from the investments. On the other hand, U.S. GAAP requires that the income be reported on the income statement and included in book income. Because this income will never be taxed, there will be a permanent difference between book income and taxable income.

Temporary income is commonly referred to as a timing difference. Expenses that would be accrued over time may be reported fully in a tax period. Warranty costs is a common temporary difference. For financial reporting purposes, warranty costs must be estimated at the time of sale. For tax purposes warranty expenses are deducted
in the period a warranty is performed. This causes income before taxes to be less than taxable income. This temporary difference is a future deductible and results in a deferred tax asset. Likewise, prepaid insurance is also a temporary difference. Prepaid insurance causes income before taxes to be greater than taxable income and results in a deferred tax liability. These differences lead to two types of tax rates: Statutory tax rate and effective tax rate. Statutory tax rate is the rate given to a company based on their tax bracket. The effective tax rate that is the actual rate used to calculate the tax liability. If there aren't any permanent differences, statutory rates and effective rates will be the same. To calculate the effective tax rate, divide this year's tax expense by income before taxes.

## Current and Deferred Taxes

In the income tax expense section of the income statement, there are two types of expenses, current and deferred. Current is the income tax payable this period. Deferred refers to the future taxable income and future deductions. It is important for a company to report both portions. It would be misleading to hide future tax liabilities from investors. A company can only deduct up to the amount of taxable income. If they do not expect to have taxable income, they may not get to utilize the deferred tax benefit from deferred tax assets. Deferred tax assets are future deductible. A company will have a tax benefit in the future. Deferred tax liabilities are future taxable. A company has a liability to pay these taxes in the future. Deferred tax valuation allowance is a provision for the changes in deferred tax assets and liabilities. These should always be recorded at the amount deductible or taxable in the future. The allowance can be used if there is a change in tax rate or if the will not be enough foreseeable profits to utilize deferred tax assets.

The net tax benefit derives from a large increase in deferred tax assets. To get the net tax benefit, ZAGG must reduce deferred tax assets by deferred tax liabilities. A net tax benefit will reduce the payable for income taxes. In figure 10.1, the journal entry

| Income Tax Expense | $\$ 9,393$ |
| :---: | :---: |
| Deferred Tax Asset | $\$ 8,293$ |
| Income Tax Payable | $\$ 17,686$ |

Figure 10.1 Deferred Tax Asset
reflects the treatment of a net tax benefit when recording income tax expense and income tax payable.

ZAGG's effective tax rate is 39 percent. To arrive at this percentage, the tax expense $(\$ 9,393)$ was divided by income before taxes $(\$ 23,898)$. This rate differs from the statutory rate due to permanent differences from taxable income and income before taxes.

There are two places where the net tax assets show up on the balance sheet. The deferred tax assets can be either current or noncurrent. The deferred tax asset follows the expense it is related to. For example, a deferred tax asset occurring from depreciation will be a noncurrent asset because depreciation stems from plant, property, and equipment, a noncurrent asset. ZAGG has a total net deferred income tax asset of $\$ 13,508,000$. Of this total amount, $\$ 6,912,000$ is classified as current assets. The other $\$ 6,596,000$ is classified as noncurrent assets. Because there is a deferred tax liability stemming from property, plant, and equipment, it can be reasonably assume this deferred tax liability is a result of a temporary difference in depreciation expense. Deferred tax liabilities occur when income before taxes is greater than taxable income. In this case, taxable income would have a greater depreciation expense. The estimated
cumulative depreciation expense difference is $\$ 2,268,571$. This number is determined by taking the plant, property, and equipment deferred tax liability and dividing it by the statutory rate of 35 percent. If the tax deprecation method had been used, the plant, property equipment would have been valued much lower at $\$ 2,593,429$ because tax would have depreciated the asset more than the book value.

Because there is a deferred tax asset stemming from allowance for doubtful accounts, it can be reasonably assume this deferred tax asset is a result of a temporary difference in bad debt expense. Deferred tax assets occur when income before taxes is less than taxable income. In this case, income before taxes would have a greater bad debt expense. The estimated cumulative depreciation expense difference is $\$ 2,914,286$. This number is determined by taking the allowance for doubtful accounts deferred tax asset and dividing it by the statutory rate of 35 percent.

ZAGG reports a valuation allowance of $\$ 713,000$. ZAGG has invested in HzO , a developing company. Due to losses in equity, ZAGG has recognized deferred tax assets. In 2012, ZAGG revalued its deferred tax assets related to HzO and determined that $\$ 713,000$ will not be utilized because HzO does not have foreseeable profits.

## Analysis

When the tax rate decreases, ZAGG will have to revalue their deferred tax asset and deferred tax liability accounts. The accounts reflect the amount that they will be able to deduct or the amount of taxes owed based on the tax rate of the company. Changing the tax rate will change the amount owed and the amount deducted. When the change results in a lower tax rate, the value of both the deferred tax asset and deferred tax liability will need to be reduced.

## Chapter 11

Pension Planning

## Defined Contribution Plan versus Defined Benefit Plan

There are two general ways a company can supply a retirement plan. A defined contribution plan means a company will contribute a certain amount each period based on a formula. On the other hand, a defined benefit plan means the company will guarantee a certain benefit at the time of retirement. Johnson \& Johnson has elected to have both types of plans. Retirement plan obligations are a liability because companies have a future obligation to the retired employees, and the obligation can be reasonably estimated. There are many assumptions that contribute to the obligation. Assumptions include life expectancy after retirement, years with the company, and future salary towards the end of career. Often, retirement plans are based on a formula of these factors which may not be fully known until the retirement date.

## Pension Obligation Elements

There are many components that influence the pension obligation. The first is service cost. This is the present value of the additional benefits to be paid to the employee based on their current period performance. For example, an employee that works an additional year may be entitled to more retirement. The second is interest cost. Pension benefit obligation is typically done through a third party. The pension benefit obligation will accrue interest that must be paid by the company. Because the
pension benefit obligations is based on assumptions, actuarial gains and losses will arrive. These gains and losses are the difference between the estimated amounts and the actual amounts. Once an employee has retired, he or she will begin to draw benefits, thus reducing the obligation the company has to that employee.

## Plan Assets Elements

Like pension obligations, the plan assets will be affected by various components. Actual return on plan assets will arise from interest, dividends, and changes in fair value from the plan assets. Like the obligation will incur interest cost, the assets will incur interest revenue. As the plan benefit obligation increases, the company will begin preparing for the future obligation. To prepare, they will transfer cash into plan assets. This will increase the amount in plan assets. Again, once an employee retirees, he or she will begin to draw benefits. The company does not pay cash direct to the employee. Instead, they will receive funds from the plan assets. As previously stated, actual return is the exact return on plan assets. This will almost always differ from the expected return, which is the company estimated return. To stay consistent, companies will net actual return with an unexpected return account. This net will be the expected return that will be accounted for in the pension expense account.

## OTHER BENEFITS

In addition to pension, Johnson \& Johnson provides other benefits including healthcare and insurance. These obligations do not arise in the pension benefit obligation. The primary difference between these obligations is that Johnson \& Johnson does not pay for these other benefits in advance, and they have the right to modify the plans in the future.

## JOHNSON \& JOHNSON

In 2007, Johnson \& Johnson reported $\$ 646$ million in pension expense as shown in figure 11.1.

| Pension Expense | $\$ 646$ |  |
| :---: | :---: | :---: |
| Pension Benefit Obligation |  | $\$ 646$ |

Figure 11.2 J\&J Pension Expense

The pension benefit obligation is valued at $\$ 12,002$ million at December 31, 2007. It represents the present value of the amount that will be owed to employees. Because the pension benefit obligation is adjusted for changes in fair value, gains and losses, contributions and expenses, it is a fairly reliable amount. The interest rate is 5.63 percent. Compared to Procter \& Gamble, a Johnson \& Johnson competitor, this interest rate is high. Procter \& Gamble's interest rate is approximately 3.2 percent. The amount of benefits paid to employers is $\$ 481$ million. Johnson \& Johnson does not pay cash. Instead, the benefits are paid out of the plan assets. Paying benefits reduces the pension benefit obligation as well as the plan assets.

At December 31, 2007, the plan assets are valued at $\$ 10,469$ million. This is the fair value of the assets at the end of the year. In 2006, the actual return is \$265 million higher than expected return; however, in 2007, actual return is $\$ 66$ million lower than expected return. Though expected return is consistent throughout year to year, the actual return is a better reflection of the economic status of the plan assets. In 2007, total contributions to the plan were $\$ 379$ million. The company contributed $\$ 317$ million, and the employees contributed $\$ 62$ million. In 2006, total contributions to the plan were $\$ 306$ million. The company contributed $\$ 259$ million, and the employees
contributed $\$ 47$ million. The plan assets are invested entirely in securities. 79 percent of the securities are equity securities. The other 21 percent is invested in debt securities. The pension benefit obligation is underfunded for both years. The pension benefit obligation is much higher than plan assets for both 2007 and 2006. The funding status shows up on the balance sheet in the form of non-current assets, current liabilities, and non-current liabilities.

## CONCLUSION

Each case carefully studied complex accounting issues. In the earlier chapters, questions were raised about the financial statements as whole. In the later chapters, smaller details were discussed in great length. In each scenario, answer was presented as the correct treatment according to U.S. Generally Accepted Accountancy Principles. Each company has an obligation to report their financial statements in U.S. GAAP, but U.S. GAAP is constantly changing law. The data presented above could change if principles change, but the thought process will be the same. It is essential to analyze and process new laws so that a deeper understanding can be achieved.


[^0]:    *Blue indicates prior year amounts

