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A Comprehensive Review of Accounting through Case Studies

by
Lukas Javier Castellanos

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

Oxford
2019

Approved by:

Advisor: Professor Victoria Dickinson

Reader: Dean Dr. Mark Wilder

2019
Lukas Javier Castellanos
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Abstract

Lukas Castellanos: A Comprehensive Review of Accounting through Case Studies

(Under the Direction of Victoria Dickinson)

An in-depth analysis of accounting was performed through a progression of case studies which covered technical, as well as disputed, accounting concepts and theory. This was performed through the Accounting 420 class which met to further discuss and debate these topics with instructors, accounting firms, and other academic peers. These cases create scenarios from real life examples in order to portray the actual nature of accounting and its basis. This thesis contains analysis cases each with a specific emphasis and idea pertaining to an aspect of accounting. Note that Case 4 is not included as it was a calculation based exercise.

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CASE 1

Eads Heaters, Inc. vs. Glenwood Heating, Inc.

Introduction

This case followed the start of two branches of a company. For the most part, they followed similar start-up actions. Both issued stock and began moving inventory while creating expenses for supplies and equipment. However, they did vary in a few of their methods. For example, Glenwood chose to use a FIFO inventory structure while Eads used LIFO. They also used different methods for purchasing plant equipment. While these do not seem like huge differences, they lead to much different end of year statements.

Comparison

For the most part, both companies do a sufficient job of turning over inventory and starting business operations. However, their differences in costing and purchases make a large difference in how they look at the end of the year. Eads' expense methods lead to a much higher expense total, and as a result, they also have a lower net income than Glenwood. This is also because of Glenwood's decision to rent the equipment instead of leasing it. While renting creates less short-term expenses, it means that you cannot include the value of the equipment in total assets. This is why Eads' total assets are higher than Glenwood.

(Figure 1A)

Glenwood Co. Income Statement FYE 20X1

Revenue		\$398,500.00
COGS		(\$177,000.00)
Gross Profits		\$221,500.00
Expenses:		
Bad Debt Expense	\$994.00	
Depreciation Expense	\$19,000.00	
Interest Expense	\$27,650.00	
Other Operating Expense	\$34,200.00	
Rent Expense	\$16,000.00	
Total Expenses:		(\$97,844.00)
Pre-Tax Income		\$123,656.00
Income Tax		(\$30,914.00)
<hr/>		
Net Income		<u>\$92,742.00</u>

(Figure 2A)

Glenwood Co. Statement of Retained Earnings FYE 20X1

Beginning Retained Earnings	\$0.00
Net Income	\$92,742.00
Dividends	(\$23,200.00)
<hr/>	
Ending Retained Earnings	<u>\$69,542.00</u>

Glenwood Co. Balance Sheet As of 12/31/20X1

(Figure 3A)

Assets

Current Assets:

Cash	\$426.00	
Accounts Receivable	\$99,400.00	
Allowance for Bad Debts	(\$994.00)	
Total Current Assets		\$98,832.00

Long Term Assets:

Land	\$70,000.00	
Inventory	\$62,800.00	
Building	\$350,000.00	
Accum. Depreciation - Build.	(\$10,000.00)	
Equipment	\$80,000.00	
Accum. Depreciation - Equip.	\$9,000.00	
Total Long-Term Assets		\$543,800.00

Total Assets	<u>\$642,632.00</u>
---------------------	----------------------------

Liabilities

Current Liabilities:

Accounts Payable	\$26,440.00	
Interest Payable	\$6,650.00	
Total Current Liabilities		\$33,090.00

Long Term Liabilities:

Notes Payable	\$380,000.00
---------------	--------------

Total Liabilities	<u>\$413,090.00</u>
--------------------------	----------------------------

Equity

Common Stock	\$160,000.00
Retained Earnings	\$69,542.00

Total Equity	<u>\$229,542.00</u>
---------------------	----------------------------

(Figure 1B)

Eads Co. Income Statement FYE 20X1

Revenue		\$398,500.00
COGS		(\$188,800.00)
Gross Profits		\$209,700.00
Expenses:		
Bad Debt Expense	\$4,970.00	
Depreciation Expense	\$41,500.00	
Interest Expense	\$35,010.00	
Other Operating Expense	\$34,200.00	
Total Expenses:		(\$115,680.00)
Pre-Tax Income		\$94,020.00
Income Tax		(\$23,505.00)
Net Income		<u>\$70,515.00</u>

(Figure 2B)

Eads Co. Statement of Retained Earnings FYE 20X1

Beginning Retained Earnings	\$0.00
Net Income	\$70,515.00
Dividends	(\$23,200.00)
Ending Retained Earnings	<u>\$47,315.00</u>

Eads Co. Balance Sheet as of 12/31/20X1

(Figure 3B)

Assets

Current Assets:

Cash	\$7,835.00
Accounts Receivable	\$99,400.00
Allowance for Bad Debts	(\$4,970.00)
Total Current Assets	<u>\$102,265.00</u>

Long Term Assets:

Land	\$70,000.00
Inventory	\$51,000.00
Building	\$350,000.00
Accum. Depreciation - Build.	(\$10,000.00)
Leased Equipment	\$92,000.00
Accum Depreciation- LE.	(\$11,500.00)
Equipment	\$80,000.00
Accum. Depreciation - Equip.	(\$20,000.00)
Total Long-Term Assets	\$601,500.00

Total Assets **\$703,765.00**

Liabilities

Current Liabilities:

Accounts Payable	\$26,440.00
Interest Payable	\$6,650.00
Total Current Liabilities	\$33,090.00

Long Term Liabilities:

Notes Payable	\$380,000.00
Lease payable	\$83,360.00
Total LT Liabilities	\$463,360.00

Total Liabilities **\$496,450.00**

Equity

Common Stock	\$160,000.00
Retained Earnings	\$47,315.00
Total Equity	<u>\$207,315.00</u>

Total Equity **\$207,315.00**

Investment

While it may seem more logical to invest in Glenwood because of their enticing net income, Eads could be a better choice. Glenwood's statements appear to be more successful on the outside, but their long-term viability is not as promising. They were able to cut some costs by recognizing a lower forecast for bad debts that doesn't leave them with much wiggle room. They also used FIFO costing which resulted in a lower cost of goods sold. This may seem like a good way to increase income, but in the future, they will have to sell the higher costing units and see a lower net income in the next period. Their methods also result in a marginal amount left in the cash accounts, and while the renting seems to be economical this year, those equipment costs will continue to go straight to expenses. Eads' lease allows them to recognize the equipment as an asset which will increase the overall value of the company. Eads also manages to recognize a much more realistic allowance for bad debts while maintaining a higher and more suitable balance in the cash account going into the next period. Overall Eads' long term potential is promising for investment.

Conclusion

This case shows how small differences in costing can result in much different results. It also reveals how sometimes initial costs can result in a less than desirable income, but if used correctly, they can benefit the business in the future. This case is a great example of how deciding whether to use LIFO instead FIFO can drastically change your cost of goods sold and overall gross profit.

Appendix A: Glenwood Transactions

	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land	Building
Capital Stock Issuance	\$160,000.00					
Borrowed Note Payable	\$400,000.00					
Purchased Land and Building	(\$420,000.00)				\$70,000.00	\$350,000.00
Purchased Delivery Equipment	(\$80,000.00)			\$239,800.00		
Purchased Heating Equipment						
Sale of Heating Units	\$299,100.00	\$398,500.00				
Collection of Previous Sale		(\$299,100.00)				
Payment for Previous Purchase	(\$213,360.00)					
Payment on Note Payable	(\$41,000.00)					
Payment of other Operating Expenses	(\$34,200.00)					
Payment of Dividends	(\$23,200.00)					
Accrual of Interest						
Totals:	\$47,340.00	\$99,400.00	\$0.00	\$239,800.00	\$70,000.00	\$350,000.00
Writing off Bad Debts			\$994.00			
Adjusting Sale of Inventory				(\$177,000.00)		
Adjusting Depreciation	(\$16,000.00)					
Equipment Rental	(\$30,914.00)					
Payment of Taxes						
Adjusted Totals:	\$426.00	\$99,400.00	\$994.00	\$62,800.00	\$70,000.00	\$350,000.00
Accumulated Depreciation, Building						
Equipment						\$400,000.00
	\$80,000.00					
				\$239,800.00		
				(\$213,360.00)		
						(\$20,000.00)
	\$0.00	\$0.00	\$0.00	\$0.00	\$6,650.00	\$380,000.00
	\$10,000.00	\$9,000.00				
\$10,000.00	\$80,000.00	\$9,000.00	\$0.00	\$0.00	\$6,650.00	\$380,000.00

Appendix B: Eads Transactions

	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land	Building
Capital Stock issuance	\$160,000.00					
Borrowed Note Payable	\$400,000.00					
Purchased Land and Building	(\$420,000.00)				\$70,000.00	\$350,000.00
Purchased Delivery Equipment	(\$80,000.00)					
Purchased Heating Equipment				\$239,800.00		
Sale of Heating Units		\$398,500.00				
Collection of Previous Sale	\$299,100.00	(\$299,100.00)				
Payment for Previous Purchase	(\$213,360.00)					
Payment on Note Payable	(\$41,000.00)					
Payment of other Operating Expenses	(\$34,200.00)					
Payment of Dividends	(\$23,200.00)					
Accrual of Interest						
Totals:	\$47,340.00	\$99,400.00			\$0.00	\$239,800.00
Writing off Bad Debts					\$4,970.00	
Adjusting Sale of Inventory					(\$188,800.00)	
Adjusting Depreciation						
Leasing of Equipment	(\$16,000.00)					
Payment of Lease	(\$23,505.00)					
Depreciation of Leased Equipment						
Payment of Taxes						
Adjusted Totals:	\$2,835.00	\$99,400.00			\$4,970.00	\$51,000.00
Accumulated Depreciation, Building					\$70,000.00	\$350,000.00
Equipment	\$80,000.00					
Accumulated Depreciation, Equipment					\$239,800.00	
Leased Equipment					(\$213,360.00)	
Accumulated Depreciation, Leased Equipment						\$7,000.00
Leased Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$26,440.00	\$7,000.00
Accounts Payable						
Interest Payable						
	\$10,000.00	\$18,000.00		\$92,000.00		\$11,500.00
\$10,000.00	\$80,000.00	\$18,000.00	\$92,000.00	\$11,500.00	\$26,440.00	\$7,000.00

CASE 2

Molson Coors Brewing Company

Introduction and Preliminary Analysis

This case looked into how Molson Coors Brewing Company reported different aspects of their financial statements. Specifically, it dealt with where items on the income statement should be reported. It is important that all items on the income statement are reported in the correct sections. Many people do not see the value of including the various totals and sums, but it is crucial in order to fully portray the company's activities. For example, reporting sales and net sales as two different values may seem unnecessary, but it is useful because it shows how other selling expenses or costs might affect the sales values. One of the biggest discrepancies in reporting income is comprehensive income vs. net income. Both items are an excellent measure of performance, but they can also have very different values for the same company. While it is true that net income has a more verifiable calculation, some would say that comprehensive income is more reflective of a company's success because it includes items that contribute to the value of the company that net income does not. MCB has a considerable difference between their comprehensive and net incomes because of the items that they choose to include in the income statement. Another aspect that has uncertainty in reporting is the special items section. Many companies use this section in very different ways, but for the most part it is used for items that cannot be included in regular operations or do not occur regularly. In order to fully understand a company's methods for placing any item, one must thoroughly read through the notes sections following the statements. These notes are an important aspect of full disclosure. Without these notes, the statements would be incomplete because they do not contain all the relevant information for decision making.

Questions and Explanations

What are the major classifications of the income statement?

- a. An income statement will start with sales or revenues. Then sales discounts and allowances are subtracted from sales to calculate net sales. This is so that sales numbers are reflected accurately and do not include sales that were returned or discounts you provided. In order to figure out the true gross profit, the cost of the goods sold must be subtracted from net sales. Gross profit is a good basic measure of how well the company is controlling direct costs on the products they sell. Other expenses that are not included in costs of goods sold are subtracted from gross profit. This gives the value of income from operating activities. From this interest expenses are subtracted to give the pre-tax income. It may seem tedious to give this total, but it is an important measure for a company because taxes are a major expense. After taxes are subtracted, Net Income is given. Below are the various components in the order mentioned:

- Sales
- Net Sales
- Gross Profit
- Operating Income
- Pre-tax Income
- Net Income

Explain why GAAP requires classified income statements

- b. Income Statements provide a significant amount of information about a company. It is the best measure of performance over a period. Releasing classified income statements helps prevent fraud by stating various income measures to users of the statements so that

numbers cannot be cheated or misrepresented. An official classified income statement is a good foundation for a company's statements because it can verify other statements or reports on the operations of the company. A classified balance sheet allows a more in-depth breakdown of the company's performance. Totals such as "gross profit" and "operating income" allow users of the statement to gather more useful information. If everything on the income statement were grouped into total revenue total expenses and net income, it would not be particularly useful for decision making because it is not clear what is included in these revenues and expenses. A manager needs to see cost breakdowns in order to make effective decisions on suppliers. An investor needs to know gross profit totals in order to get a baseline for the performance of the company's operation. The sections on a classified balance sheet increase the informational value of the statement overall.

Why might financial statement users be interested in persistent income?

- c. Persistent incomes are extremely useful for projecting the future success of a company. They give a good prediction of what next periods income will be because the company has successfully earned that quantity consistently in the past.

Define comprehensive income and discuss how it differs?

- d. Comprehensive income is the total increase or decrease in total equity excluding investments or withdrawals from outside parties. It is the sum of net income plus items that made it past the income statement because their value is difficult to measure accurately. An example of this is unrealized gains and losses from holdings. It is hard to predict future values on items like this so they must be added to net income separately in a statement of comprehensive income.

What is the difference between “Sales” and “Net sales”?

- e. Net sales are the net of the sales the company has made. Net sales are a better measure of how sales performed because it includes the losses from excise taxes and sales discounts and allowances. Excise taxes are taken out of sales because the taxes on sold products to customers are seen as a liability that cannot be included. These are reported separately in order to show the total amount of these expenses taken out of sales to create net sales.

Consider the income statement item “Special items, net” and information in the Notes.

What types of items are usually included in this line? Explain why these items are reported on a separate line.

- f. Special items are usually non-operations related and for the most part non-recurring. They are separated from usual income statement items. Usually Molson Coors puts items that are unrelated to operations and do not occur regularly on this line, but they have included the income from Miller Coors in the income from operating activities. This is because it is a special case where it is included as an operation of the company at large, but it also cannot be just included in operating income without special designation.

What distinction between “Other income (expense), net” and “Special items, net” which Molson classifies as operating expenses?

- g. Other income and expenses are items that cannot be attributed to operating activities. The bulk of these incomes and expenses are interest related. Interest usually cannot be matched to the operating activities of the firm. The special items were not included because the income from equity in Miller Coors can be somewhat matched to the company’s operations.

What is the amount of comprehensive income in 2013 and how does this compare to net income?

- h. i. Comprehensive income for 2013 is \$760.2 million. This is almost \$200 million greater than net income. This is because comprehensive income includes items that could not be included on the income statement.
- ii. These items include unrealized gains and foreign currency translation costs. These translation costs accounted for a large decrease in comprehensive income which reflects the company's major foreign involvement as seen in their tax reductions. A portion of net income is allocated to the non-controlling interest of the companies or subsidiaries that are not owned completely. These effects are also conveyed in the comprehensive income statement from pensions and derivatives.

What is Molson Coors' effective tax rate in 2013?

- i. Molson Coors effective tax rate is their income tax expense divided by the pre-tax income. This would be \$84 million divided by \$654.5 million making their effective tax rate equal 12.8%

CASE 3

Pearson Plc

Introduction

This case followed the business practices of Pearson plc, a company based in London involved in education technologies. Specifically, this case looked at the workings of their accounts receivable or, as they are referred to in England, trade receivables. Although accounts receivable seems like a simple number to calculate, gross accounts receivable takes a little more planning. Gross accounts receivable, or gross trade receivables, includes the allowance for doubtful accounts as well as the allowance for sales returns. These accounts are called “provisions” in England where they would be called “allowances” in the United States. However, these accounts are hard to know with complete certainty and need to be estimated before they can be confirmed after reporting. These estimates are added to the accounts until they are credited for the actual utilized amounts. This is done because they are both contra-accounts for trade receivable. When they are debited for their actual amounts, the trade receivables account is then credited or reduced by those amounts in a journal entry. This interconnected system allows receivables to be accurately reported.

Questions and Explanations

What is an account receivable?

- a. An account receivable is how much money is due to be received as a result of credit sales or another similar transaction. They are also known as trade receivables.

How do they differ from notes receivable?

- b. Notes receivables are usually written promises with terms or interest. They are usually legally binding with contracts. Accounts receivables are a shorter-term item with no terms and a less formal setting.

What is a contra account?

- c. They are the provision for bad and doubtful debts and the provision for sales returns. Provision for bad debts is used to show what portion of receivables will be uncollectable and must be written off. Provision for sales returns and allowances is used to show what portion of receivables will be uncollectable because of returns of the previously sold product. For a manager to estimate these items, they will usually look at historical data to determine what percentage of sales or receivables will most likely be returned or uncollected.

Discuss methods of estimating receivables.

- d. The aging-of-accounts procedure is when all the invoices of sales are laid out chronologically based on due date so that it is apparent which accounts will most likely not be collected on time. The percentage of sales method is done by taking the historical average of how many returns there has been in a similar period and then using this percentage to estimate how many returns there will be in the future. Both approaches require a lot of past performance data to determine historical trends in bad debts and

returns. Aging-of-accounts procedure is usually more accurate because it looks directly at invoice data, but this method also takes more scrutiny and time than using the percentage of sales.

Why are accounts receivable used?

- e. Using accounts receivable and making sales on credit are important for retailers because they can make significantly higher profits. It only makes sense that more customers will buy a product when they do not have to pay up front. While it is true that some of these receivables will not be collectable, the benefits of making those extra sales outweighs the cost of the bad debt expense.

T-Chart Analysis

f.

Provision for Bad and Doubtful Debts

	72	Beg
Exchange Diff.	5	
	26	Income Statement movements
Utilized	20	
	3	Acquired through business
	76	End

Bad debt expense	26	
Provision for bad and doubtful debts		26
Provision for bad and doubtful debts	20	
Accounts receivable		20

The Bad debt expense account is included under the operating expenses on the income statement.

g.

Provision for Sales Returns	
	372 Beg
	425 Estimation
Reconciliation	443
	354 End

Sales	425
Provision for sales returns	425

Provision for sales returns	443
Trade receivables	443

The provision for sales returns is a reduction done to sales in order to find net sales. This way it can be included under trade receivables as a contra-account on the balance sheet while still having those adjustments included in net income.

h.

Trade Receivables (Gross)

Credit Sales	5624		
		20	Bad Debts Reconciliation
		443	Sales Returns Reconciliation
End Balance	5161		

Trade Receivables	5624	
Sales		5624
Cash	5161	
Trade Receivables		5161

CASE 5

Palfinger AGS Property, Plant, & Equipment

Introduction

This case takes a look into an integral part of manufacturing companies reporting. Property, plant, and equipment can create many discrepancies in a company's books. There are many methods as to how these assets should be valued that can result in drastically different outcomes and reports. The two most commonly used methods are straight-line and double declining balance. Long-term, both methods will result in the same depreciation amount totals. However, in the short-term, they have very different expense amounts and valuations. Double declining balance has very large depreciation expenses early on that gradually become smaller over the life of the asset. This works well for depreciating items that depreciate very quickly. This then helps match the expenses to the period in which the corresponding asset contributed. Straight-line, on the other hand, is consistent across all periods for the life of the asset because expense amount is fixed. In order to determine which method is most accurate, it takes an in-depth understanding of the asset and its projected behavior and use in operations. This case does an excellent job of displaying how, depending on which depreciation method used, there can be major differences in how a transaction is reported. Even after only one year's depreciation, it can be the difference between reporting a gain on a sale and a loss.

Questions and Explanations

What sort of property and equipment do you think the company has?

- a. They possess manufacturing machines that assist in building the cranes. They most likely have automated assembly lines that help create parts. This would also include warehouses and production plant locations. There are also many additions and capitalizations of these assets that are included in their value. The company depreciates these on a straight-line basis which is favored in this scenario where the machines do consistent and predictable jobs.

What does the property, plant, and equipment account represent?

- b. This number includes all of the machines and devices used in operations. This includes all plant items under constructions and prepayments. It has taken into account depreciation by subtracting it out of the historical cost. This means that the value of the equipment is the cost minus the accumulated depreciation over time. This allows the machinery to be accurately valued in the balance sheet while still reporting the original cost.

What types of equipment does Palfinger report in notes to the financial statements?

- c. Palfinger claims buildings, plant machinery, and added equipment fixtures. These buildings include the land on which they are built along with the costs put into development. The machinery is inside these buildings with the equipment fixtures added over time. These may seem like vague categories, but the items within them are costed as accurately as possible to correctly convey the value to shareholders.

What does “Prepayments and assets under construction” represent?

- d. Prepayments and assets under construction represents the items and projects that are currently being completed. This could be prepayments and costs in constructing a new warehouse. The reason this account does not have depreciation is because equipment does not start accumulating depreciation until it begins use in operations. These items are not available for use until they are finished and put into their proper property plant and equipment account. The reason for the reclassification of €14,958 was because the project was finished and that equipment was changed to a finished plant asset that was now available for use. That amount went into different plant accounts such as land, machinery, and fixtures.

What method does Palfinger use for depreciation?

- e. Palfinger uses straight-line depreciation. This makes logical sense considering how they use their equipment. Their machinery most likely works on a very consistent basis as they assemble cranes so it makes sense to use a single consistent rate to depreciate. The tradeoffs management faces with this method is that it does not compensate if a machine or asset is not used as much or more than usual. So, if a machine is barely used during a period it will still receive the same amount of depreciation and vice versa. This can lead to misrepresentations of the value of plant assets on the balance sheet.

Palfinger routinely opts to perform major renovations and value-enhancing modifications to equipment and buildings rather than buy new assets. How does Palfinger treat these expenditures what is the alternative accounting treatment?

- f. Palfinger uses capitalization to turn their large expenses into long term assets to be used over the course of time. This allows the expense to be recognized not all at once. This

way they will not be forced to report a massive decrease in income because of this expense. It more accurately recognizes the expense because it is used to expand over the course of several periods. Another alternative method is to charge these renovations directly to accumulated depreciation so that the value of the asset will be increased. This can lead to problems when the renovation exceeds the accumulated depreciation, giving accumulated depreciation a debit balance.

What is the purchase amounts for PPE? How do government grants and depreciation affect book values of these assets?

- g. i. Palfinger's total property plant and equipment purchases were €61,444. This number includes all land, building, machinery, and fixtures purchased in 2007. This does not include the constructions that were finished and reclassified to available for use because these were already accounted for in the entirety of property plant and equipment.
- ii. The grants amounted to 733. These grants are subtracted so that the gain is recognized in income by decreasing depreciation expense. The revenue is recognized over the course of time that the money is used in development.
- iii. The total depreciation amounted to €12,557. This includes depreciation for buildings, equipment, and fixtures. This number represents how much value these assets have lost over the course of the year.
- iv. The total amount of assets disposed in 2007 was €13,799. The net value, however, is €1,501 (13,799-12,298). This now includes the depreciation of the disposed assets. This represents the value of the assets that were removed from operations and are now unavailable for use. This number is obviously subtracted to now correctly portray the total value of property plant and equipment.

Calculate the gain or loss from the sale of the previously mentioned assets for €1,655.

- h. The gain would be €154 (1,655-1,501). This is because it was sold €154 over the current book value. This gain would be shown in the income statement under other revenue. This can sometimes be seen as controversial because it is not a true source of cash revenue as is seen in the sales account. However, it is still revenue because the value of the asset, even minus this depreciation, can create revenue indirectly.

Calculate a depreciation schedule for straight-line and double declining methods for an asset with a useful life of 5 years and a salvage value of €1,273.

i.

Year	0	1	2	3	4	5
Book Value (Straight-line)	10,673	8,793	6,913	5,033	3,153	1,273
Book Value (Double Declining Balance)	10,673	6,403.80	3842.28	2305.37	1,383.22	1,273

Calculate the gain or loss on the sale of this asset for €7,500 if the asset were valued at either method.

- j. i. The book value at the time of sale was €8,793 (10,673-1880) because of one year's depreciation. So therefore, the sale resulted in a loss of €1,293 (8,793-7,500) because the money received was less than the value of the asset. This asset impacted the income statement in two ways. The first was the depreciation expense it added in the first year. This amount was €1,880 in the expense section of the income statement. The second

impact is from the loss from the asset's sale of €1,293. This affects the income statement similarly as an expense because it reduces income as well. Therefore, the total impact on the income statement is a reduction of income of €3,173.

ii. The book value at the time of sale was €6,403.80 ($10,673 \times .6$) because of one year's depreciation. So therefore, the sale resulted in a gain of €1,293 ($7,500 - 6,403.80$) because the money received was greater than the value of the asset. This asset impacted the income statement in two ways. The first was the depreciation expense it added in the first year. This amount was €4,269.2 in the expense section of the income statement. This first-year depreciation expense is much larger than the expense using straight-line. This is because double declining balance does a significantly higher amount of depreciation in the early years of an assets life. This expense then continues to shrink over the assets life. The second impact is from the gain from the asset's sale of €1,293. This is treated similarly to a non-operating revenue. Therefore, the net impact on the income statement is a reduction of income of €2,976.20.

iii. Double declining balance had less of a negative impact on the income statement than straight-line did. This usually would not be the case because double declining balance tends to create higher expense amounts in early years. This is why it is used for quickly depreciating assets. It's initial expense amount is much higher than straight-line. However, in this scenario, this large amount of depreciation worked in favor because it made the book value less than the selling price which resulted in a gain. Even though straight-line had a smaller depreciation expense, it received a loss on the sale because its value was too high. Both methods will end up creating the same total depreciation expense long-term the only difference is when those expenses are recognized.

CASE 6

Volvo Group, Research & Development Cost Allocation

Introduction

This case looked into how Research and Development expenses are treated on various financial statements. R&D expenses are the topic of many controversies in the accounting world. It is hard to decide whether or not to treat them as a capital investment or simply an operational cost. GAAP treats these expenses as purely cost. No American company is able to capitalize these expenses, however, under IFRS, companies are allowed to capitalize portions of these expenses if they are expected to generate future cash flows or benefit. Proponents of this method claim that this allows the expenses to be better matched with their revenue by use of amortization. However, this prediction of cash flows can be very speculative. It can be difficult to determine the amount or existence of these cash flows. This is why the total expense method can be useful. It removes the need to determine the future value of the investment. Nonetheless, both methods will result in the same total expenses incurred long-term. This case has shown how differences between GAAP and IFRS can determine large areas of the income statement. For technology related businesses, their largest expenses are usually R&D so it makes a huge impact on their income statement whether or not they capitalize these expenses. This case also opened up the idea of intangibles, another controversial aspect of accounting. I learned that intangibles can include far more than just copyrights and patents. The account can include a wide variety of non-substantive assets including these R&D expenses under IFRS. This case also persuaded me that amortization might be a better alternative for these expenditures in order to follow matching principles.

Questions and Explanations

The 2009 income statement shows research and development expenses. What types of costs are likely included in these amounts?

- a. Research and development expenses usually involve product development and innovation. Many if not all of the technological products on the market required significant investments in research. For example, a new Apple laptop cannot simply be thrown together at the last second before it hits the shelves. Millions upon millions of dollars are invested into its development. This money could be used for market testing, salaries for highly-paid consultants, or equipment needed for prototype creation.

Volvo uses the intangible assets to account for its research and development expenditures. What factors do they consider as they decide which costs to capitalize?

- b. For these research and development expenditures to be capitalized, they have to have probable and measurable future cash inflows or revenues. This means that they will in some way generate income as a result of development investment. If they do not meet these criteria then they are expensed against net income in the period in which the expenditures are incurred.

How does Volvo determine the amortization period for these capitalizations?

- c. To determine when these amortization expenses should be deducted from revenue, it must be determined when the resulting future cash flows will be received. This way, the expenditures can be accurately matched to the revenues in the periods they were generated because of the intangible investment. The timeline of this amortization varies based on the so called “useful life”. Usually this idea is used for plant assets being

depreciated, but amortization is a very similar procedure in that it slowly takes value away from an asset over time to correctly match expenses.

Does IFRS or GAAP do a better job of reporting these expenses?

- d. In my opinion, IFRS does a better job of matching revenues and expenses by allowing some of these research and development expenditures to be capitalized and amortized over time. Under GAAP, these expenses are deducted against income in the period they are incurred. While, this may seem efficient to expense the entire amount all at once, it can lead to misleading deductions in net income because the revenues associated with these expenses has not been realized yet.

What is the amount of the capitalized product and software development costs at the end of 2009? Which line item is this reported under?

- e. i. The total capitalized expenditures were 11,409 in net. This number is included in the total intangible assets of 41,628 on the balance sheet.
- ii.

Product and Software Development. Net	
Beg Bal. 12,381	
Capitalization 2,602	3,574 Amortization
End Bal. 11,409	

Complete the table detailing Volvo's intangible assets.

f. i.

(in SEK millions)	2007	2008	2009
1) Product and software development costs capitalized during the year	2,057	2,150	2,602
2) Total R&D expense on the income statement	11,059	14,348	13,193
3) Amortization of previously capitalized costs (included in R&D expense)	2,357	2,864	3,126
4) Total R&D costs incurred during the year = 1 + 2 - 3	10,759	13,634	12,669

iii. The percentage of total R&D costs capitalized was 19.12%, 15.77%, and 20.54% respectively for the three years.

Complete the table and calculate the proportion of total R&D costs to net sales.

g. i.

(in SEK millions)	2007	2008	2009
Net sales, industrial operations	285,405	303,667	218,361
Total assets, from balance sheet	321,647	372,419	332,265

ii. The percentage of R&D expenses in terms of net sales was 5.8% for Volvo and 3.83% for Navistar. This means that Volvo's use of R&D is a larger part of their operations. Volvo's expenses are more directly correlated with revenue. It also means that Volvo, devotes more assets to R&D than Navistar. This could in part be because Volvo is able to capitalize some of these expenses so therefore they would be more inclined to make these expenditures, but for Navistar these must be directly expensed in the period incurred.

CASE 7

Data Analytics

Introduction

This case looked into the history and uses behind statistical analysis software, specifically SAS. Most research on SAS was done through their website which provided an in-depth history of the product. SAS and other statistical analysis software are used to consolidate and analyze large amounts of data quickly and easily. In the past, to create a graph or chart of mass amounts of data, it required a lot of man power and expensive equipment, but now, this software is built into the very hardware of our computers. Even Excel utilizes many aspects and features that were created in the seventies when SAS was being developed. The ability to find patterns and dissect trends has become the focus of every business or data company. The automation of this process that SAS brings is invaluable. Through this case, I have learned a lot about what it takes to implement and use SAS on a larger business scale. I have also found out a lot about how these programs were developed and their meteoric rise in popularity. SAS changed how businesses planned for the future. It changed how markets were seen, how solutions were created. As SAS continues to expand and grow, the complexity of business and the shadow of “big data” will grow as well.

Explanations

1. It was created at North Carolina University as a means of analyzing agricultural research data. NCU was one of the only universities capable of developing this type of technology because it housed a very powerful computer mainframe that could run huge sections of code instantly. Many institutions had almost no access to computers with such capabilities. Because no software like this existed prior, the application soon grew from agriculture, and in 1976, SAS was officially created for use in academics, banking, and other aspects of business. It became the golden goose for data analysis once its

applications were realized. Consumer trends, purchase histories, market patterns: any type of numerical data could be charted and analyzed, a process which normally required many man hours and statisticians. The company keyed in on user interface so that even the least technologically savvy could use SAS to complete analysis. In the next decades, SAS and similar technologies expanded overseas becoming an integral part of business innovation.

2. SAS is a relatively simple program that is now integrated, in some part, into most operating system's analysis functions. It is fairly easy to use and does not require extensive training. As mentioned before, its user interface is intuitively set up for straightforward learning. As a student, all that would be needed is a basic understanding of statistics and mathematical analysis as well as participation in several prepared tutorials. Upon completion of business statistics, a student will be familiar with the terms and vocabulary of statistical analysis and will be knowledgeable enough to use the majority of SAS. However, at more advanced applications, a deeper understanding of statistical analysis, as well as the software, will be needed.
3. There are many scenarios in which SAS is applicable. In Auditing, SAS can be invaluable. For example, it can be used to help verify that a company is meeting their annual goals or margins using its time progression analysis across several year's data. Similarly, it can be used to create future expected outcomes based on previous records. This "simulation" program is an invaluable tool when budgeting and creating forecasts. SAS can take many different factors and create outcomes based on probability and historical expectations. It can also be used to plot consumer trends. This is extremely useful for retail companies who need to figure out what to sell and what to take off the

shelves. Similarly, it has many applications in tax planning. One of the biggest uses is in historical data analysis to determine previous tax write-offs. This is then used to plot future tax expenses and their projected effects against performance. SAS can also be used to create different scenarios for tax presentation and their overall effect on income statements. It can also be used to sift through mountains of data to determine maximized profitability in accordance with different countries tax codes. For example, when a company is located in many different countries, it must attribute different revenues to certain locations. SAS is able to find the maximized distribution to pay the lowest tax expense world-wide. Another tax application is its ability to verify tax write-offs. SAS has software capabilities to check and verify massive amounts of data almost instantly. Using stipulations and codes programmed into its constraints, it can make sure that the tax expense is within the legal requirement. SAS is especially useful in advisory and valuation. Its graphical analysis is critical for producing charts and graphs. SAS can produce these visual graphs instantly with many variations or desired stipulations. This is critical for any advisory presentation. SAS is also useful as a datamining tool. It can sift through decades of performance reports and data to create solutions to problems. For example, if a company is having a hard time turning over inventory, it might realize that this is the result of a trend that occurs at the release of a competitor's new product. Another advisory application is simply in data verification. Many times, a company uses statistics generated through various means that can be inaccurate or misleading because of machine error or missing factors in the calculation. SAS has step-by-step verification to come to the correct solution every time. The ability to find mistakes in a company's previously held statistics or business assumptions is an invaluable asset.

4. SAS is something we should look into. It is often overlooked in statistics programs because it has been on the market for so long, but this works in its favor. Because SAS has been being developed since the seventies, its user interface is optimized to be operated easily. SAS also offers a variety of free online tutorials that teach how to use the software. It is offered in several program suites that can be installed in different departments depending on their needs. The program suites have comprehensive applications that can process and interpret data for presentations rapidly. Its uses would involve data consolidation and verification. Just think, if during an audit a client gives the team a one-hundred-page long list of equipment trading transactions, SAS can almost instantaneously take all of that information and turn it into a readable and useful chart or graph with analysis and trend patterns already highlighted.

Information referenced:

“About SAS.” *SAS*, SAS, www.sas.com/en_us/company-information.html#history.

CASE 8

Rite Aid Corporation, Long-Term Debt

Introduction

This case looked into the different classifications and presentations of long term debt. Debt financing is becoming increasingly popular among large businesses as interest rates are easy to manipulate in such a way to safely borrow huge quantities. Rite Aid has a multitude of different bonds and notes at various interest rates that create an immunity to unstable market changes. These notes and bonds are constantly accruing different amounts of interest while steadily having their discounts and premiums amortized. This is why the valuation of bonds can be so complicated. There are many different methods that businesses use in amortization. The most popular being the effective interest method. This method calculates the interest expense first and then finds the amount of the discount to amortize based on the cash payment. This method debatably creates a more accurate valuation of the bond than the straight-line method, but many would say that straight-line is just as good. They both will result in the same total interest expense over the life of the bond, but the effective interest method results in lower interest expenses early on with larger expenses near maturation. The initial valuation of the bond against the market relies heavily on the rates currently held by other securities. Most bonds are sold at a percentage of their face value. This is how the discount is created on the books that will eventually be poured into interest expense over the life of the note.

Explanations

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

- a.
 - i. Secured debt is usually backed with collateral in the instance that it is unpaid. A common example of secured debt is a mortgage loan which is backed by the value of the house. Unsecured debt is usually not backed with collateral which makes it higher risk. This is reflected in a higher interest rate for unsecured debt.
 - ii. Their secured debt is backed by their subsidiary's credit. This is a common business practice because subsidiaries have separate books that then are incorporated into the revenues of the parent company while still maintaining its definition as a separate entity. This allows for the two to back each other in various financial instruments.
 - iii. The senior debt refers to the senior debt facility which is the primary source of debt financing for Rite Aid. This includes the majority of the bonds and outstanding notes Rite Aid has on their books. The fixed rate debt is the debt with a constant interest rate that cannot be changed or refinanced under new terms. They have strict guidelines of how they are handled, but for the most part are very simple bonds. Convertible debt is the bonds or notes that can be converted into stock depending on whether or not the holder chooses to do so. This is a very versatile type of debt because it can change from debt financing to equity financing with much liquidity. It is very efficient because it allows the issuer of the debt to not distribute more common stock than necessary.
 - iv. Using a variety of different types of debts at different rates allows Rite Aid to not be overly affected by market fluctuation or problems with creditors. Using different interest rates is very common among business because they usually reflect different amounts of

risk laid out in the terms of the debt. It also allows the debt as a whole to be less susceptible to the effects of changing market rates.

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

- b. The total debt is \$6,370,899. This is comprised of \$51,502 of current debt, \$6,185,633 of long term debt, and \$133,764 of lease debt.

Consider the 7.5% senior secured notes due March 2017.

- c. i. The face value is \$500,000. This is the value under the books with no discount.

ii. Cash 500,000

Notes Payable 500,000

- iii. Interest Expense 37,500

Cash 37,500

- iv. Notes Payable 500,000

Cash 500,000

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

- d. i. It was issued with a face value of \$410,000. The carrying value was \$405,951 in 2010 with an unamortized discount of \$4,049

ii. The interest payment for 2009 was \$38,438. This was calculated by multiplying the principal by the interest rate.

iii. The interest expense was \$39,143 for 2010. This is the sum of the amortized amount of the discount, \$705, and the normal cash interest payment \$38,438.

iv. Interest Expense	39,143
Discount on Notes Payable	705
Cash	38,438

v. The total or effective rate of interest for these notes is 9.659%. This was calculated by dividing \$39,143 by \$405,246.

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

e. Cash	402,620
Discount	7,380
Notes Payable	410,000

ii. The effective rate of interest is 10.121%. This was calculated similarly to the previous effective interest rate by dividing the interest expense by the previous year's carrying value.

iii.

Date	Cash PMT	Interest Exp	Disc Amort	CV
6/30/09				\$402,620.00
6/30/10	\$39,975.00	\$40,749.98	\$774.98	\$403,394.98
6/30/11	\$39,975.00	\$40,828.41	\$853.41	\$404,248.39
6/30/12	\$39,975.00	\$40,914.79	\$939.79	\$405,188.18
6/30/13	\$39,975.00	\$41,009.91	\$1,034.91	\$406,223.08
6/30/14	\$39,975.00	\$41,114.65	\$1,139.65	\$407,362.73
6/30/15	\$39,975.00	\$41,230.00	\$1,255.00	\$408,617.73
6/30/16	\$39,975.00	\$41,357.02	\$1,382.02	\$409,999.75

iv. Interest Expense 27,167

 Discount on Notes Payable 517

 Interest Payable 26,650

v. The book value would be \$402,620 summed with the decrease in the discount of \$517 to give a carrying value of \$403,137.

CASE 9

Merck & Co., Inc. Analyzing Shareholders' Equity

Introduction

This case looked into the different ways that companies manage stock. Merck & Co. is a pharmaceutical company that uses a large amount of equity financing. This is very common for research based companies because there are usually a large number of prospective investors. The market for pharmaceutical stock is very popular because of the large payouts that can arise when a company develops a new drug or patents a formula. One of the most common ways a company manipulates their stock prices and shares is through the purchase and sale of treasury stock. This is when a company buys back some of its own outstanding shares from investors. This can be a very strategic act because purchasing shares decreases the total number outstanding. This can result in a large increase in the earnings-per-share ratio which is one of the most closely followed figures on Wall street. There are a few different methods for recording these types of transactions, but the most common is the cost method which records the treasury stock value at the market price it was purchased for. A company's stock worth is a critical component to keeping a good image as a functioning and growing company so these changes in stock value and number of shares outstanding can be very important. Merck & Co., as well as many other large corporations, use a very small par value in order to record large paid in capital accounts whenever selling stock. The par value might be just a few cents while the actual market price could be \$50 dollars a share. All of these methods of recording equity are in an effort to display the most attractive stock offerings at market.

Explanations

Consider Merck's common shares.

- a.
 - i. Merck & Co. is authorized to issue 5,400,000,000 shares of common stock.
 - ii. Merck & Co. has actually issued only 2,983,508,675 shares of common stock
 - iii. The value of the common stock is \$29.8 million. This is justified if the shares have a par value of one cent each.
 - iv. Merck & Co. has 811,005,791 shares currently held in treasury stock.
 - v. The number of shares outstanding is equal to the total number of issued shares minus the number of shares held in treasury stock. $2,983,508,675 - 811,005,791 = 2,172,502,884$ shares outstanding.
 - vi. To calculate the market capitalization, the market price is multiplied by the total number of shares outstanding. $\$57.61/\text{share} \times 2,172,502,884 \text{ shares} = \$125,157,891,100$
- b. N/A

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

- c. Dividends are a critical part of maintaining a good market presence. It proves that the company is making sufficient money to pay back investors. This then encourages further sales of the stock to other brokers. The more frequent or consistent the dividends are, the higher the market value will be. This will then result in an overall increase in equity long term if the stock is seen as more attractive.

In general, why do companies repurchase their own shares?

- d. By purchasing treasury stock, the total number of shares is decreased. This makes the stock much more attractive because fewer shares outstanding results in a larger earnings-per-share ratio which is a very influential figure in the stock market.

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

e. Dividends	3,310,700,000
Cash	3,400,000
Dividends Payable	3,307,300,000

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

- f. i. Merck & Co. implements the cost method when purchasing treasury stock. This is a very common method among large corporations because it reflects the market value at the time of purchase. The value added to the treasury stock account is the number of shares purchased multiplied by the market rate. This can get complicated when dissecting out different parts of the treasury stock because different amounts of treasury stock can be purchased at a different price per share. Therefore, some calculating is required to figure out how many specific shares are within each price. When the treasury stock is sold again at a higher market rate than purchased, paid in capital is credited, as a sort of gain, recording the increase in equity.
- ii. Merck & Co. repurchased 26.4 million shares from investors to become treasury stock.
- iii. To buy back this stock Merck & Co. paid 1,429,700,000 in cash. This cash flow is classified as a financing cash flow because it deals with equity and the company's stock actions.

iv. Treasury stock is a contra-equity account because it actively subtracts from the total equity. If it was classified as an asset, it would appear as an investment that would result in future operating cash flows, but the treasury stock is actually the companies own equity currently under their possession rather than an asset. Its classification as an asset would also create an imbalance in the total equity.

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

i.

Year	2007	2006
Dividends paid	\$3,307,300,000	\$3,322,600,000
Shares outstanding	2,172,502,884	2,167,785,445
Net income	\$3,275,400,000	\$4,433,800,000
Total assets	\$48,350,700,000	\$44,569,800,000
Operating cash flows	\$6,999,200,000	\$6,765,200,000
Year-end stock price	\$57.60	\$41.94
Dividends per share	\$1.52	\$1.53
Dividend yield	2.638%	3.648%
Dividend payout	100.974%	74.945%
Dividends to assets ratio	0.0684	0.0745
Dividends to operating CF	0.4725	0.4911

CASE 10

State Street Corporation, Marketable Securities

Introduction

This case looked into the ways that different classifications of securities are dealt with and recorded on income statements. There are two major ways that securities can affect financial statements. They can be recorded at fair value or at amortized cost. Held-to-maturity securities are recorded at amortized cost. It does not make sense to record them at fair value because they are not going to be sold. Available-for-sale securities are recorded at amortized cost and simultaneously fair value. Trading securities, as their name designates, are intended to be sold. This means that they are valued at fair value so that, when they are sold, it is in accordance with the proper value. So, there are no gains or losses recognized on Held-to-maturity securities of course, but there are for the other two varieties. However, they do not flow through the income statement for available-for-sale securities because their gains are seen as not quite true revenue. It is not certain whether the security will end up being sold, but trading securities are much more likely to be sold. For this reason, the gains from these securities are seen on the income statement.

Explanations

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

- a.
 - i. Trading securities are designated as such because of management’s intent to sell the security and not hold it to maturity. The gains from sale of these securities will go through the income statement.
 - ii. They are recorded through the income statement as interest or dividend revenue
 - iii. If the value increased, there would be a debit to the fair value adjustment account and a credit to unrealized holding gains or losses – income.

***Consider securities available-for-sale. Note that State Street calls these,
“Investment securities available for sale.”***

- b. i. Available for sale securities are designated as such because management is not sure if the security will be sold or held to maturity, but they are retaining the option to sell.
- ii. The dividends and interest would be recorded as dividend or interest revenue on the income statement.
- iii. If the value increased, there would be a debit to the fair value adjustment account and a credit to unrealized holding gains or losses – equity.

***Consider securities held-to-maturity. Note that State Street calls these,
“Investment securities held to maturity.”***

- c. i. Held to maturity securities are designated as such because of management’s intent to hold the security until it matures. They do not get adjusted because of market changes because they are being held. Equity securities never mature so that would make no sense.
- ii. There would be no entry.

Consider the “Trading account assets” on State Street’s balance sheet.

- d. i. The account is recorded at \$637 million. This is the fair value of the securities.
- ii. FVA \$85 m

Unrealized Holding Gain (Income) \$85 m

***Consider the balance sheet account “Investment securities held to maturity” and the
related disclosures in Note 4.***

- e. i. The account is recorded at \$11,379 million.
- ii. The fair value is \$11,661 million.

iii. The amortized cost is the same as the balance sheet value at \$637 million. This represents the original cost of the security minus the amortization that has occurred. The original cost of the security could have been higher or lower depending on whether it was purchased above or below the par value. The difference is what the original discount or premium started at before it started getting amortized over the life of the security.

iv. The difference suggests that the interest rates of the market have risen therefore lowering the value of the currently held maturity because they are earning at a lower rate than could be purchased.

Consider the balance sheet account “Investment securities available for sale” and the related disclosures in Note 4.

- f. i. The account is recorded at \$109,682 million. This is the already adjusted value of the securities so their fair value.
- ii. It is a net gain of \$798 million. This is on the comprehensive income because there is not a good probability that this gain will be in fact realized, but there is a chance.
- iii. It is a net gain of \$27 million.

State Street’s statement of cash flow for 2012 (not included) shows the following line items in the “Investing Activities” section relating to available-for-sale securities (in millions): Proceeds from sales of available-for-sale securities \$ 5,399 Purchases of available-for-sale securities \$60,812

g. i.	Investments – AFS	\$60,812 m
	Cash	\$60,812 m
ii.	Cash	\$5,399 m
	Investments – AFS	\$5,344 m

Realized gain – AFS \$55 m

iii. The original cost was \$5,344 m. This is seen in the previous entry as the credit to the investments account.

CASE 11

ZAGG, Deferred Income

Introduction

This case looked into how the payment of taxes is accounted for, specifically, how discrepancies between book and taxable income. There are many situations that can arise where these differences are created. Usually it involves some difference of method used in recording either revenues or expenses. However, it can be even more complex if the differences are temporary or permanent. Permanent differences are never reversed and do not get taken into account when creating assets or liabilities. Temporary differences are able to be reversed in future years because they result in underpayment or overpayment of taxes. That is why the recording of the quantity of these differences is so crucial. Tax expense is usually one of the largest and most costly expenses that a company pays, so much thought and effort goes into its correct calculation. There are two very crucial accounts that are used in recording these differences between taxable income and the actual income on the books. Deferred tax assets are used when too much was paid in taxes, and deferred tax liabilities are used when more is needed to be paid. This makes sense as an asset is created when you are owed something, and a liability is created when you owe something. These accounts are created and then drained over the next years depending on the starting amount. This then equilibrates the amount the business pays in taxes over time so that they neither underpay or overpay in the end.

Explanations

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

- a. The book income is the pretax income that is recorded on the books. This is designated as such because there can be a different income value used to calculate the actual taxes

payable. This is due to differences of how the IRS treats some expenses as well as other variations.

In your own words, define the following terms: Permanent and Temporary tax differences (also provide an example)

- b. i. A permanent tax difference is when there is a difference between the income used on the tax return and book income that is not then converted over time. These are things like fines from governmental agencies.
- ii. A temporary tax difference is a difference between the income used on the tax return and book income. However, this difference is because of something that will be changed over the course of the next fiscal years. An example is maybe a change in tax rate that then creates differences in the deferred tax accounts. It could also arise from different classifications of amortization and depreciation.
- iii. The statutory tax rate is the rate mandated by law for that year. This is constantly changing slightly every year but especially this year with the new tax code.
- iv. The effective tax rate is simply a calculation of the tax expense divided by the pretax income. This gives the percentage of the tax rate. It is called the effective tax rate because it is effectively how much you are actually paying of your income in the end.

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

- c. The payment of taxes is one of the most influential cash flows and expenses that a company faces. An entire branch of accounting is devoted to figuring out how much is due. The representation of this value is crucial for accurate financial reporting. Many

times, it is easy to think of the tax expense as just a constant percentage of income, but it is truly much more. So, the first reason for the separate classification of current and deferred taxes is that there is going to be a difference between what we will pay in the end and what we must pay today. According to ASC 740, the tax expense must be represented on the income statement showing the amount of the expense that is current and the amount that will be deferred in the future. This then gives a much more accurate representation of what the financial standing of the entity will be after the tax payment. Sometimes the difference between the tax expense and the current taxes payable is huge so simply stating the total expense will not reflect the true cash flow.

Explain what deferred income tax assets and deferred income tax liabilities represent.

Give an example of a situation that would give rise to each of these items on the balance sheet.

- d. As discussed previously, these differences between book income and taxable income create complications for reporting purposes. So, the big question is how do these differences get reconciled in the journal entries for tax payments? Obviously, if the income tax expense and the income taxes payable are different, the entry will be problematic. That is why the codification of ASC – 740 was created. It provides the basis for two accounts: deferred tax assets and deferred tax liability. The names of these accounts are mostly self-explanatory. Deferred tax assets are essentially times where the entity has paid more taxes than they should have. This can occur very commonly when there is a difference between taxable income and actual income. As discussed before, the income used for tax returns can use different methods for depreciation or classifying expenses. This then creates the differences that go into these two accounts. Sometimes a

difference can occur that will not be reversed in future years. These are called permanent differences. A very common example of this is a fine from a governmental agency. These cannot be included in the income on tax filings. However, these differences are not used when calculating deferred tax assets and liabilities because, as previously stated, they will not be reversed in future years filings. For a deferred tax asset or liability to occur there has to be a difference among other income statement items. For example, it is common for depreciation on tax returns to be higher than the book income. This means that the income on the tax return will be lower than the book income. Therefore, taxes payable will be less than it technically would be according to book income. Because the entity is paying less than it should be, a liability is created, specifically a deferred tax liability. Another situation where a difference is created is when rent payments are recognized under different methods. For example, under book income, an entity might choose to defer certain incremental revenues and not recognize them yet for book purposes, but tax filings require that they be recorded. Therefore, the taxable income will be greater than the actual income. Obviously, no entity is wanting to pay more taxes than they have to so a deferred tax asset is created. These two accounts are created through the journal entry creating that year's tax expense and taxes payable accounts. When the tax expense is less than the taxes payable, there is an imbalance on the debit side of the entry leaving a perfect opening to debit the deferred tax asset account. On the other hand, when the imbalance goes the other way, there is a perfect opening to credit the deferred tax liability account.

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

- e. The deferred tax valuation allowance account is used to correct any discrepancies in deferred taxes. It is usually used for when a deferred tax asset is determined to be not worth what it was recorded for. This sort of “impairment” is accounted for using the deferred tax valuation allowance.

Consider the information disclosed in Note 8 – Income Taxes

- f. i.

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

- ii.

Income Tax Expense	9,393
Deferred Tax Asset	8,002
Deferred Tax Liability	291
Income Taxes Payable	17,686

- iii. By dividing ZAGG’s income tax expense by their book income, the effective tax rate is calculated. It is called the effective tax rate because it is effectively what the company is expensing on account of taxes. Even though the tax rate might be different, they are still technically paying the effective tax rate on their books. This calculation found ZAGG’s effective tax rate to be 39.3%. This difference is caused by those previously discussed differences that arise in the deferred tax liabilities and assets. It can also be because of permanent differences that do not reverse. In the end, it is very rare that a

company's statutory tax rate and effective tax rate equal each other perfectly due to the many factors that go into the calculation of the income tax expense figure.

iv. The term "net" usually refers to a total with a value already subtracted out of it. In this case it is the total deferred tax assets of \$14,302,000 minus the total deferred tax liabilities of \$794,000 to give the net total deferred tax assets of \$13,508,000.

CASE 12

Apple, Revenue Recognition

Introduction

This case looked into the complicated world of revenue recognition. Apple is one of the largest technologies retailers in the world. They have reach all around the world. They are constantly making contracts and receiving payments. In order to maintain consistency of revenue recognition, a strict method is required. Recently ASC 606 outlined the steps that must be taken in recognizing revenue. For the most part, companies have been following this system to some extent, but the new codification lays it out in concrete terms so that there is no inconsistency across businesses. Through this case, I have learned a significant amount about the details within the codification. I have also learned about its application across different scenarios. This case was interesting because it dealt with a very real and well-known business that I deal with every day. It was fascinating to see what their books look like because most of the time, these businesses are unknown. This case also gave me practice in reading codifications in general. They can be somewhat tricky to navigate or understand, but this case has helped me figure out how to use information effectively without wasting time. This case also gave me experience in going through the revenue recognition steps and how each step applies to the businesses methods as a whole.

Explanations

In your own words, define “revenues.” Explain how revenues are different from “gains.”

- a. Over the course of a business’s life, profits are created through a variety of ways. There is great significance in how these profits are recorded on financial statements. One of the biggest divisions is between revenues and gains. Revenues refer to the earnings from normal business operations of a company. Gains refer to peripheral

actions of the company that result in net gains. Gains can arise from the sale of equipment or security value fluctuations.

Describe what it means for a business to “recognize” revenues. What specific accounts and financial statements are affected by the process of revenue recognition? Describe the revenue recognition criteria outline in the FASB’s Statement of Concepts No. 5.

- b. For revenue to be recognized, there are several steps that must be completed. This process was recently improved upon through the newly instated ASC 606. This codification outlines the five steps of revenue recognition. The first step is to identify the contract and ensure that it has been created. A contract is simply an agreement between two parties that entails action in some way from the parties. The second step is to identify these obligations for either party and what these obligations will require. This can be difficult because contracts can be vague and not define clearly if obligations are separate or grouped. The third step is to determine the transaction price. This is usually straightforward, but the complication comes with the next step. Step four is to allocate the transaction price among the different obligations. This can get complicated because some of the obligations might be very related while still being separate. This can lead to misreporting of revenues and gains because of the misclassification of the profits to their respective accounts. The last step is to recognize the revenue once the performance obligations are satisfied.

Refer to the Revenue Recognition discussion in Note 1. In general, when does Apple recognize revenue? Explain Apple’s four revenue recognition criteria. Do

they appear to be aligned with the revenue recognition criteria you described in part b, above?

- c. Apples revenue recognition criteria closely reflect the ASC 606. Though it is not word for word, in the context of their business, they follow the general guidelines. Their first criteria is that there is evidence of an agreement. This is similar to the first step of ASC 606 in determining that a contract has been created. Their second criteria is that the price is fixed or determinable. As a retailer, this takes the place of steps two through four because most of their products have their own prices that are pre-allocated. Their last criteria is that the product has been shipped or turned over to the other party. This fulfills the contract as stated in step five so revenue can be recognized.

What are multiple-element contracts and why do they pose revenue recognition problems for companies?

- d. Multi-element contracts are contracts that have several obligations that span over many different areas of business. Obviously, this raises problems when allocating the transaction price over the obligations because if it is done incorrectly, the revenues might be classified incorrectly which will lead to misreporting. It can also create problems in defining when an obligation has been fulfilled and when it is still pending. This then raises the question of which period to recognize deferred revenues in.

In general, what incentives do managers have to make self-serving revenue recognition choices?

- e. Usually, managers receive bonuses based on the revenue of the company as a whole. Therefore, it is in their best interest for the company to have the highest income possible. This gives them an incentive to recognize revenues even when it might not be valid to do so under ASC 606.

Refer to Apple's revenue recognition footnote. In particular, when does the company recognize revenue?

- f.
 - i. iTunes sales are accrued on a net basis because part of the revenue from the sale goes to a third party. This makes sure that the correct portion of the transaction price is allocated to revenue.
 - ii. The revenue from the sale of in store products are recorded as deferred revenue initially until delivery has been completed at which point it becomes recognized. This is because apple still maintains liability of the product until it is delivered to the other party.
 - iii. This is treated similarly to a regular delivery of products. However, the problem is determining the transaction price initially. The value of the transaction is determined using value pricing techniques that best estimate what the transaction will be recorded as.
 - iv. Using ASC 606, Apple records revenue once the obligation is fulfilled. Because they are a retailer primarily, transaction price is easily determined for the most part. Therefore, the only real question in their recognition is when the obligations have been fulfilled. That is why they cannot fully recognized revenue until delivery has been completed. For the third-party transactions, the determination of the price is

crucial to be able properly allocate it across all the obligations. That is why the value pricing technique is used.