# AN ANALYSIS OF CASE STUDIES REGARDING PRINCIPAL FINANCIAL ACCOUNTING CONCEPTS 

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

Oxford
May 2019

Approved By

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\text { (C) } 2019
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ABSTRACT<br>JANESSE BIRDSONG: An Analysis of Case Studies Regarding Principal Financial<br>Accounting Concepts<br>(Under the direction of Dr. Victoria Dickinson)

During Fall of 2017 and Spring of 2018, I participated in an alternate thesis route for accounting majors. The alternate route consisted of enrolling in a year-long course with Dr. Victoria Dickinson and individually completing cases based on financial accounting concepts each week. The cases selected each focus on a specific financial accounting concept. The conclusions reached in the cases were based on materials from the case, in class lecture notes, and an intermediate accounting textbook. Each case presents a series of questions which start with basic accounting concepts and build to more complex conceptual issues. Each case further developed my technical skills and advanced my knowledge about financial accounting concepts. Overall, everything learned from the completion of this thesis will be applicable towards a future career in accounting from a conceptual standpoint and from the further development of writing and technical skills.

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## CASE 1

Home Heaters Inc. - Glenwood vs. Eads

September 2017

## Introduction

In this case, two heating companies began operations. The first transactions, from part A of the case, show the operations for both companies as identical. The companies diverge when using GAAP principles towards financial statements and in managerial decisions during part B of the case. After recording the transactions from parts A and B , each company required a set of financial statements. The trial balances, income statements, statements of retained earnings, and balance sheets provided users with the information needed to see how management decisions impacted each company. The direct comparisons between companies allows external users to make an informed decision about which company they would rather invest in. The financial statements also provide insight for internal users about how slight changes in managerial decisions influence the overall well-being of a company.

There was much to learn from this case. Not only did it provide a great review from accounting 201, but it presented a few challenges to work through as well. Starting the case seemed overwhelming, but completing it step by step helped. After each step of the case, all the pieces started to fall into place. By the end, the big picture became clear and it was easy to understand the reasons for all of the steps. Overall, the case was enjoyable to work on. Taking everything learned from this case, from excel formatting to calculating double-declining balance depreciation, will hopefully help with future cases. The case brought me out of my comfort zone because it was unlike homework and assignments normally given in accounting classes. This case provided a great opportunity to apply the concepts and material learned in accounting 201 and 202 towards a realistic, real-world situation. The contents of the case are in the order they
were completed in to allow the reader to process the information in steps. Glenwood is always listed first, followed by Eads. Appendices are included as reference to the calculations and account balances.

Table 1-A: Trial Balance Part A - Home Heaters

|  | Home Heaters <br> Trial Balance - Part A |  |
| :--- | :---: | :---: |
|  | Debits | Credits |
| Cash | 47,340 |  |
| Accounts Receivable | 99,400 |  |
| Inventory | 239,800 |  |
| Land | 70,000 | 26,440 |
| Building | 350,000 | 380,000 |
| Equipment | 80,000 | 6,650 |
| Accounts Payable |  | 160,000 |
| Notes Payable |  | 398,500 |
| Interest Payable | 23,200 |  |
| Common Stock | 34,200 | $\$ 971,590$ |
| Dividend | 27,650 |  |
| Sales |  |  |
| Other operating expenses | $\$ 971,590$ |  |
| Interest expense |  |  |
| Total: |  |  |

[^0]Table 1-B: Trial Balance Part B - Glenwood

Glenwood
Trial Balance - Part B

|  | Debits | Credits |
| :--- | :---: | :---: |
|  |  |  |
| Cash | 426 |  |
| Accounts Receivable | 99,400 | 994 |
| Allowance for Bad Debt | 62,800 |  |
| Inventory | 70,000 |  |
| Land | 350,000 | 10,000 |
| Building | 80,000 | 9,000 |
| Accumulated Depreciation - Building |  | 26,440 |
| Equipment |  | 380,000 |
| Accumulated Depreciation - Equipment | 6,650 |  |
| Accounts Payable | 160,000 |  |
| Notes Payable |  |  |
| Interest Payable |  | 398,500 |
| Common Stock | 23,200 |  |
| Dividend |  |  |
| Sales | 977,000 |  |
| Cost of Goods Sold | 994 |  |
| Bad Debt Expense | 34,000 |  |
| Depreciation Expense | 16,000 |  |
| Other operating expenses | 27,650 |  |
| Rent Expense | 30,914 |  |
| Interest expense |  |  |
| Provision for income tax | 991,584 |  |
| Total: |  |  |

[^1]Table 1-C: Trial Balance Part B - Eads

Eads<br>Trial Balance - Part B

|  | Debits | Credits |
| :---: | :---: | :---: |
| Cash | 7,835 |  |
| Accounts Receivable | 99,400 |  |
| Allowance for Bad Debts |  | 4970 |
| Inventory | 51,000 |  |
| Land | 70,000 |  |
| Building | 350,000 |  |
| Accumulated Depreciation - Building |  | 10,000 |
| Equipment | 80,000 |  |
| Accumulated Depreciation - |  |  |
| Equipment |  | 20,000 |
| Leased Equipment | 92,000 |  |
| Accumulated Depreciation - Leased |  |  |
| Equipment |  | 11,500 |
| Accounts Payable |  | 26,440 |
| Notes Payable |  | 380,000 |
| Lease Payable |  | 83,360 |
| Interest Payable |  | 6,650 |
| Common Stock |  | 160,000 |
| Dividend | 23,200 |  |
| Sales |  | 398,500 |
| Cost of Goods Sold | 188,800 |  |
| Bad Debt Expense | 4970 |  |
| Depreciation Expense | 41,500 |  |
| Other operating expenses | 34,200 |  |
| Interest expense | 35,010 |  |
| Provision for income tax | 23,505 |  |
| Total: | \$1,101,420 | \$1,101,420 |

[^2]Table 1-D: Income Statement - Glenwood

Glenwood<br>Income Statement<br>For year ended - December 31, 20X1

| Sales |  |  |
| :---: | :---: | :---: |
| Sales Revenue |  | \$398,500 |
| Cost of Goods Sold* |  | $(177,000)$ |
| Gross profit |  | 221,500 |
| Operating expenses |  |  |
| Bad debt expense | 994 |  |
| Depreciation Expense - building* | 10,000 |  |
| Depreciation Expense - equipment* | 9,000 |  |
| Rent Expense | 16,000 |  |
| Other operating expenses | 34,200 | $(70,194)$ |
| Income from operations |  | 151,306 |
| Other expenses and losses |  |  |
| Interest Expense* | 27,650 | $(27,650)$ |
| Income before income tax |  | 123,656 |
| Income Tax* |  | $(30,914)$ |
| Net Income |  | \$92,742 |

*Cost of goods sold, depreciation expenses, interest expense and income tax calculations, see appendix III.

Table 1-E: Income Statement - Eads

Eads<br>Income Statement<br>For year ended - December 31, 20X1

| Sales |  |  |
| :---: | :---: | :---: |
| Sales Revenue |  | \$398,500 |
| Cost of Goods Sold* |  | $(188,800)$ |
| Gross profit |  | 209,700 |
| Operating expenses |  |  |
| Bad debt expense | 4,970 |  |
| Depreciation Expense - building* | 10,000 |  |
| Depreciation Expense - equipment* | 20,000 |  |
| Depreciation Expense - leased equipment* | 11,500 |  |
| Other operating expenses | 34,200 | $(80,670)$ |
| Income from operations |  | 129,030 |
| Other expenses and losses |  |  |
| Interest Expense* | 35,010 | $(35,010)$ |
| Income before income tax |  | 94,020 |
| Income Tax* |  | $(23,505)$ |
| Net Income |  | \$70,515 |

*For cost of goods sold, depreciation expenses, interest expense and income tax calculations, see appendix III.

Table 1-F: Statement of Retained Earnings - Glenwood

Glenwood
Statement of Retained Earnings
For the year ended - December 31, 20X1

Retained Earnings, January 1
Add: Net Income 92,742 92,742
Less: Dividends
Retained Earnings, December 31 $(23,200)$

Table 1-G: Statement of Retained Earnings - Eads

Eads
Statement of Retained Earnings
For the year ended - December 31, 20X1

| Retained Earnings, January 1 | $\$$ - |
| :--- | ---: |
| Add: Net Income | 70,515 |
|  | 70,515 |
| Less: Dividends | $\underline{(23,200)}$ |
| Retained Earnings, December 31 | $\underline{\mathbf{\$ 4 7 , 3 1 5}}$ |

Table 1-H: Balance Sheet - Glenwood

Glenwood
Balance Sheet
December 31, 20X1

## Assets

Current Assets
Cash \$426
Accounts Receivables 99,400
Less: Allowance for bad debts (994)
Inventory $\quad 62,800$
$\begin{array}{ll}\text { Total Current Assets } & 161,632\end{array}$
Property, Plant and Equipment
Land - at cost \$70,000
Building 350,000
Less: accumulated depreciation (10,000)
$\begin{array}{ll}\text { Equipment - at cost } & 80,000\end{array}$
Less: accumulated depreciation $\quad(9,000)$
Total Property, plant, and equipment $\quad 481,000$
Total Assets $\quad \mathbf{\$ 6 4 2 , 6 3 2}$

## Liabilities and Stockholders' Equity

Current Liabilities
Accounts Payable $\quad \$ 26,440$

Interest Payable $\quad 6,650$
Notes Payable
380,000
Total current 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

## Table 1-I: Balance Sheet - Eads

Eads<br>Balance Sheet<br>December 31, 20X1<br>\section*{Assets}

## Current Assets

Cash \$7,835
Accounts Receivables 99,400
Less: Allowance for bad debts $\quad(4,970)$
Inventory $\quad 51,000$
Total Current Assets 153,265
Property, Plant and Equipment
Land - at cost $\quad \$ 70,000$
Building 350,000
Less: accumulated depreciation $\quad(10,000)$
Equipment - at cost 80,000
Less: accumulated depreciation $\quad(20,000)$
Leased Equipment 92,000
Less: accumulated depreciation $\quad(11,500)$
Total Property, plant, and equipment $\quad 550,500$
Total Assets $\quad$ \$703,765

| Current Liabilities | $\underline{\text { Liabilities and Stockholders Equily }}$ |  |
| :--- | :--- | :--- |
| Accounts Payable | $\$ 26,440$ |  |

Interest Payable $\quad 6,650$
Notes Payable 380,000
Lease Payable 83,360
Total current liabilities 496,450
Stockholders' equity
Common Stock 160,000
Retained Earnings 47,315
Total stockholders' equity 207,315
Total liabilities and stockholders' equity $\quad \$ 703,765$

## Conclusion

The financial statements provide valuable information about the companies. Both companies pay their investors the same amount of dividends, initially suggesting that investing in either company would produce the same results. Comparing the companies further reveals that Glenwood has a higher net income, and lower amount of assets and liabilities than Eads. Glenwood was able to produce the same volume of sales as Eads with a total lower expense cost while also creating more income for the company. However, while Glenwood produced these results, they still paid their investors the same amount of dividends as Eads and did not invest in anything for the company. This could be a warning sign to investors because Glenwood has excess money that they have chosen to keep rather than invest or reward investors with. Even though both companies pay the same amount of dividends to investors, Eads would be the better option to invest in for the long run because they pay their investors at a higher percentage than Glenwood and are seeking to grow their business by investing excess funds.

## Appendix 1-1 - Glenwood Transactions Parts A and B

Table 1-J:Glenwood Transactions - Assets

| Part A | Cash | Accounts <br> Receivable | Allowance for bad debt | Inventory | Land | Building | Accumulated depreciation building | Equipment | Accumulated Depreciation equipment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | (+) 160,000 |  |  |  |  |  |  |  |  |
| 2 | (+) 400,000 |  |  |  |  |  |  |  |  |
| 3 | (-) 420,000 |  |  |  | (+) 70,000 | (+) 350,000 |  |  |  |
| 4 | (-) 80,000 |  |  |  |  |  |  | (+) 80,000 |  |
| 5 |  |  |  | (+) 239,800 |  |  |  |  |  |
| 6 |  | (+) 398,500 |  |  |  |  |  |  |  |
| 7 | (+) 299,100 | (-) 299,100 |  |  |  |  |  |  |  |
| 8 | (-) 213,360 |  |  |  |  |  |  |  |  |
| 9 | $(-) 41,000$ |  |  |  |  |  |  |  |  |
| 10 | (-) 34,200 |  |  |  |  |  |  |  |  |
| 11 | (-) 23,200 |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |
| totals: | \$ 47,340 | \$ 99,400 |  | \$ 239,800 | \$ 70,000 | \$ 350,000 |  | \$ 80,000 |  |
| Part B: |  |  |  |  |  |  |  |  |  |
| 1 |  |  | 994 |  |  |  |  |  |  |
| 2 |  |  |  | -177,000 |  |  |  |  |  |
| 3 |  |  |  |  |  |  | 10,000 |  | 9,000 |
| 4 | -16,000 |  |  |  |  |  |  |  |  |
| 5 | -30,914 |  |  |  |  |  |  |  |  |
| totals: | \$ 426 | \$ 99,400 | \$ 994 | \$ 62,800 | \$ 70,000 | \$ 350,000 | \$ 10,000 | \$80,000 | \$ 9,000 |

Table 1-K: Glenwood Transactions (cont.) - Liabilities and Equity

| Part A | Accounts Payable | Interest <br> Payable | Notes Payable | Common Stock | Retained Earnings | Dividend | Sales | Cost of goods sold | Bad debt expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  | (+) 160,000 |  |  |  |  |  |
| 2 |  |  | (+) 400,000 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 | (+) 239,800 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  | (+) 398,500 |  |  |
| 7 |  |  |  |  |  |  |  |  |  |
| 8 | (-) 213,360 |  |  |  |  |  |  |  |  |
| 9 |  |  | (-) 20,000 |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  | (+) 23,200 |  |  |  |
| 12 |  | (+) 6,650 |  |  |  |  |  |  |  |
| totals: | \$ 26,440 | \$ 6,650 | \$ 380,000 | \$ 160,000 |  | \$ 23,200 | \$ 398,500 |  |  |
| Part B: |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  | 994 |
| 2 |  |  |  |  |  |  |  | 177,000 |  |
| 3 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| totals: | \$ 26,440 | \$ 6,650 | \$ 380,000 | \$ 160,000 |  | \$ 23,200 | \$ 398,500 | \$ 177,000 | \$ 994 |

Table 1-L: Glenwood Transactions (cont.) - Liabilities and Equity
$\left.\begin{array}{r|l|l|l|l|l}\text { Part A } & \begin{array}{l}\text { Depreciation } \\ \text { expense }\end{array} & \begin{array}{l}\text { Interest } \\ \text { expense }\end{array} & \begin{array}{l}\text { Other } \\ \text { operating } \\ \text { expense }\end{array} & \text { Rent expense } \\ \text { taxes }\end{array}\right)$

## Appendix 1-2 - Eads Transactions from Parts A and B

Table 1-M: Eads Transactions - Assets

| Part A | Cash | Accounts <br> Receivable | Allowance for bad debt | Inventory | Land | Building | Accumulated depreciation building | Equipment | Accumulated Depreciation equipment | Leased equipment | Accumulated <br> Depreciation - <br> leased equipment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | (+) 160,000 |  |  |  |  |  |  |  |  |  |  |
| 2 | (+) 400,000 |  |  |  |  |  |  |  |  |  |  |
| 3 | (-) 420,000 |  |  |  | (+) 70,000 | (+) 350,000 |  |  |  |  |  |
| 4 | (-) 80,000 |  |  |  |  |  |  | (+) 80,000 |  |  |  |
| 5 |  |  |  | (+) 239,800 |  |  |  |  |  |  |  |
| 6 |  | (+) 398,500 |  |  |  |  |  |  |  |  |  |
| 7 | (+) 299,100 | (-) 299,100 |  |  |  |  |  |  |  |  |  |
| 8 | (-) 213,360 |  |  |  |  |  |  |  |  |  |  |
| 9 | (-) 41,000 |  |  |  |  |  |  |  |  |  |  |
| 10 | (-) 34,200 |  |  |  |  |  |  |  |  |  |  |
| 11 | (-) 23,200 |  |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |
| totals: | \$ 47,340 | \$ 99,400 |  | \$ 239,800 | \$ 70,000 | \$ 350,000 |  | \$ 80,000 |  |  |  |
| Part B |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  | 4970 |  |  |  |  |  |  |  |  |
| 2 |  |  |  | -188,800 |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  | 10,000 |  | 20,000 |  |  |
| 4 | -16,000 |  |  |  |  |  |  |  |  | 92,000 | 11,500 |
| 5 | -23,505 |  |  |  |  |  |  |  |  |  |  |
| totals: | \$ 7,835 | \$ 99,400 | \$ 4,970 | \$ 51,000 | \$ 70,000 | \$ 350,000 | \$ 10,000 | \$ 80,000 | \$ 20,000 | \$ 92,000 | \$ 11,500 |
|  |  |  |  |  |  |  |  |  |  |  |  |

Table 1-N: Eads Transactions (cont.) - Liabilities and Equity


Table 1-O: Eads Transactions (cont.) - Liabilities and Equity

| Part A | Dividends | Sales | Cost of goods sold | Bad debt expense | Depreciation expense | Interest expense | Other operating expenses | Rent expense | Provision for income taxes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 6 |  | (+) 398,500 |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  | 21,000 |  |  |  |
| 10 |  |  |  |  |  |  | (+) 34,200 |  |  |
| 11 | (+) 23,200 |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  | (+) 6,650 |  |  |  |
| totals: | \$ 23,200 | \$ 398,500 |  |  |  | \$ 27,650 | \$ 34,200 |  |  |
| Part B |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  | 4970 |  |  |  |  |  |
| 2 |  |  | 188,800 |  |  |  |  |  |  |
| 3 |  |  |  |  | 30,000 |  |  |  |  |
| 4 |  |  |  |  | 11,500 | 7360 |  |  |  |
| 5 |  |  |  |  |  |  |  |  | 23,505 |
| totals: | \$ 23,200 | \$ 398,500 | \$ 188,800 | \$ 4,970 | \$ 41,500 | \$ 35,010 | \$ 34,200 |  | \$ 23,505 |

## Appendix 1-3: calculations

Cost of goods sold for Glenwood: FIFO method:
$(40$ units $x \$ 1000)+(60$ units $x \$ 1100)+(20$ units $x \$ 1150)+(40$ units $\times \$ 1200)$ $=\$ 177,000$
Cost of goods sold for Eads: LIFO method:
$(50$ units x $\$ 1100)+(20$ units x \$1150) + (62 units x \$1200) $+(28$ units x \$1300) $=\$ 188,800$

Depreciation expenses:
Glenwood:
Depreciation Building $=($ book value - salvage value $) /$ expected life

$$
=(350,000-50,000) / 30
$$

$$
=10,000
$$

Depreciation Equipment $=($ book value - salvage value $) /$ expected life

$$
\begin{aligned}
& =(80,000-8000) / 8 \\
& =9,000
\end{aligned}
$$

Eads:
Depreciation Building $=($ book value - salvage value $) /$ expected life

$$
\begin{aligned}
& =(350,000-50,000) / 30 \\
& =10,000
\end{aligned}
$$

Depreciation Equipment $=($ book value $/$ expected life $) \times 2$

$$
\begin{aligned}
& =(80,000 / 8) \times 2 \\
& =20,000
\end{aligned}
$$

Depreciation Leased equipment $=$ book value $/$ expected life

$$
\begin{aligned}
& =92,000 / 8 \\
& =11,500
\end{aligned}
$$

Interest expenses:
Glenwood/Eads from transaction 9:
Interest expense $=$ Principal x rate x time

$$
=(400,000 \times .07 \times 9 / 12)=21,000
$$

Glenwood/Eads from transaction 12:
Interest expense $=$ Principal x rate x time

$$
=(380,000 \times .07 \times 3 / 12)=6,650
$$

Income tax calculations:
Glenwood:

$$
\begin{aligned}
\text { Income tax } & =25 \% \text { of GAAP income } \\
& =.25(123,656) \\
& =30,914
\end{aligned}
$$

Glenwood:
Income tax $=25 \%$ of GAAP income

$$
\begin{aligned}
& =.25(94,020) \\
& =23,505
\end{aligned}
$$

## CASE 2

## Molson Coors Brewing Company

September 2017

## Introduction

Case two presented financial statements from Molson Coors Brewing company and asked questions about the information from the financial statements. In general, the case provided an opportunity to review income statements and think about why income statements are formatted a certain way. The case begins with a question about the difference between operating and non-operating income and how companies can classify revenues and expenses under each category. The statement of comprehensive income and corresponding questions helped clarify the differences between measuring net income and comprehensive income.

Comprehensive income was an unfamiliar term. Learning about comprehensive income in intermediate was a little confusing. Seeing an actual example of comprehensive income and its components helped me understand the concept better. Also, I learned what a 'dirty surplus' is and how it influences comprehensive income. The case required a calculation for the effective tax rate of the company. Learning how to calculate the effective tax rate from the financial statements is something that will be beneficial in the future. Reading all of the financial notes from the statements will hopefully help in the future, especially working in the real world.

## Concept Based Questions - Part A - What are the major classifications of an income statement?

The income statement consists broadly of revenues, expenses, gains and losses. Revenues are increases in assets for a firm from producing goods, selling goods, or providing services. Expenses are decreases in assets or an increase in liabilities due to the costs associated with producing goods, selling goods or providing services. Gains occur when equity increases from something that is not a typical transaction for a firm. Losses are when equity decreases from a transaction or event that is unusual for a firm. Gains and losses are peripheral, meaning they don't directly relate to the firms' central operations.

Normally companies will divide the income statement into sections so the right expenses can be matched with their corresponding revenues. A company will often decide to split the income statement sections into an operating and non-operating section.

The first section is the operating section which reports a company's revenues and expenses that directly relate to the company's central operations. The operation section will start with sales. This category will include sales revenue, discounts, allowances, returns and other accounts relating to sales. This allows for the company to calculate net sales. After this, the cost of goods sold is listed. This matches the sales revenue with the costs of producing the sales. The third part of the operating section is the selling expenses which will often include advertising expenses, sales salaries and expenses relating to the company's effort to make sales. The last section of the operating section consists of administrative and general expenses. This is the section where expenses such as utilities expense, insurance expense and office salaries are reported.

The second section of the income statement is the non-operating section which are revenues and expenses from indirect activities. Gains and losses are often included in this section. The non-operating section has two subsections. The first includes other revenues and gains. An example of a revenue could be dividend revenue. The second subsection consists of other expenses and losses. An example would be interest expense.

After these two sections, a company will list their income before income tax. Following this will be the deduction of income tax, resulting in the final net income.

## Concept Based Questions - Part B - Explain why, under U.S. GAAP, companies are

 required to provide "classified" income statements."Classified" income statements are required under GAAP because they provide a framework for the income statement. The framework requires companies to divide their expenses and revenues into operating and non-operating sections. This allows readers to understand the income statement better and clearly see where the company earns or loses money. This is important because if a company has a department in its non-operating section that is generating more revenue than a department in the operating section, the reader can see this with the classified income statement. The reader would not be about to see this under an unclassified income statement where all of the revenues are listed followed by all of the expenses.

## Concept Based Questions - Part C - In general, why might financial statement users be interested in a measure of persistent income?

Financial statement users are in the process of making decisions, the absence or presence of a persistent income can influence their decisions. Financial statement users want to see a steady inflow of income in a company so they can make predications. Persistent income is a measure that allows users to see how well (or not well) a company is maintaining a steady inflow of income.

## Concept Based Questions - Part D - Define comprehensive income and discuss how it differs from net income.

Comprehensive income measures the change in equity during a period from nonowner sources. To clarify, comprehensive income disregards changes in equity from distributions to owners and investments from owners. Comprehensive income includes items that would not be included in net income, such as unrealized holdings gains and losses. Due to the increased practice of using fair value to measure assets and liabilities, FASB requires companies to report the fair value gains/losses under "other comprehensive income" on the income statement. This rule ensures that net income is not misleading due to constant changes in fair value. Reporting the gain/loss under "other comprehensive income" discloses the necessary information without misleading investors.

Process Based Questions - Part E - The income statement reports "Sales" and "Net Sales". What is the difference? Why does Molson Coors report these two items separately?

Sales are the amount of revenue before any deductions are made. Net sales will be the amount of revenue after deductions. Normally these deductions would be sales returns or allowances, but in this case excise tax is deducted. The purpose of this is to show the amount of excise tax deducted from the revenue. This addition of information gives users a chance to see what exact amount of excise tax is deducted from revenues.

## Process Based Questions - Part F - Consider the income statement item "Special items, net" and information in Notes 1 and 8. In general, what types of items does Molson Coors include in this line item? Explain why the company reports these on a separate line item rather than including them with another expense item. Molson Coors classifies these special items as operating expenses. Do you concur with this classification? Explain.

The company includes infrequent items, impairment or asset abandonment-related losses, restructuring charges, fees for ended specific operating agreements and gains (losses) on investments. These special items are considered unusual items that would most likely not occur the next reporting period.

The company included these on separate line items because they are not frequent or consistent. These "expenses" don't occur every period, therefore, it would be inaccurate to report these expenses with other reoccurring expenses. Also, including
these items separately would allow financial statement users to compare the different expenses across periods.

Molson Coors should not classify special items as operating expenses because included in notes 1 and 8 they state, "our special items represent changes incurred or benefits realized that we do not believe to be indicative of our core operations..." (Pg., 10). If Molson Coors believes these expenses are not representative of their central operations, then they should be considered non-operating expenses. Their notes are conflicting with their income statement, creating confusion for financial statement users. Molson Coors either needs to change the statement made about special items or reclassify them under a different category.

## Process Based Questions - Part G - Consider the income statement item "Other income (expense), net" and the information in Note 6. What is the distinction between "Other income (expense), net" which is classified a nonoperating expense, and "Special items, net" which Molson Coors classifies as operating expenses?

The "other expenses, net" include items that do not directly influence the operations of a company. They occur in the background, almost as a separate department. Most of the expenses include investing transactions. These should be classified as a nonoperating expense because they do not directly influence the central operations of the company. The "special items, net" include transactions that are atypical but relate to central operations more than the "other expenses, net". For example, the restructured charges incurred by Molson Coors are directly related to central operations.

Process Based Questions - Part H - Refer to the statement of comprehensive income. What is the amount of comprehensive income in 2013? How does this amount compare to net income in 2013? What accounts for the difference between net income and comprehensive income in 2013? In your own words, how are the items included in Molson Coors' comprehensive income related?

In 2013, the comprehensive income is $\$ 760.2$ million and net income is $\$ 572.5$ million. Comprehensive income is just under $\$ 200$ million more than net income.

The difference between the two is due to the "dirty surplus" added to comprehensive income. This surplus consists of available for sale investments, pensions, foreign currency transactions and derivative transactions. These are not included in net income because they are not easily or accurately valued.

The items included in the comprehensive income statement are all items that are difficult to get an accurate measure. They are subjective to value and therefore cannot be included in net income. All of the items must be included after net income to prevent Molson Coors from overstating net income.

Analysis Question - Part J (part i) - Consider the information on income taxes, in note 7. What is Molson Coors' effective tax rate in 2013?
12.8 percent is the effective tax rate in 2013. It is calculated by dividing the interest expense by the pretax income. In this case, $\$ 84$ million divided by $\$ 654.5$ million to get 12.8 percent.

## Appendix 2-1

Table 2-A: Molson Coors Brewing Companies Statement of Operations

## MOLSON COORS BREWING COMPANY AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF OPERATIONS (IN MILLIONS, EXCEPT PER SHARE DATA)

|  | For the Years Ended |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2013 |  | December 29, 2012 |  | December 31, 2011 |  |
| Sales | S | 5,999.6 | S | 5,615.0 | S | 5,169.9 |
| Excise taxes |  | (1,793.5) |  | (1,698.5) |  | $(1,654.2)$ |
| Net sales |  | 4,206.1 |  | 3,916.5 |  | 3,515.7 |
| Cost of goods sold |  | $(2,545.6)$ |  | $(2,352.5)$ |  | $(2,049.1)$ |
| Gross profit |  | 1,660.5 |  | 1,564.0 |  | 1,466.6 |
| Marketing, general and administrative expenses |  | $(1,193.8)$ |  | $(1,126.1)$ |  | $(1,019.0)$ |
| Special items, net |  | (200.0) |  | (81.4) |  | (12.3) |
| Equity income in MillerCoors |  | 539.0 |  | 510.9 |  | 457.9 |
| Operating income (loss) |  | 805.7 |  | 867.4 |  | 893.2 |
| Other income (expense), net |  |  |  |  |  |  |
| Interest expense |  | (183.8) |  | (196.3) |  | (118.7) |
| Interest income |  | 13.7 |  | 11.3 |  | 10.7 |
| Other income (expense), net |  | 18.9 |  | (90.3) |  | (11.0) |
| Total other income (expense), net |  | (151.2) |  | (275.3) |  | (119.0) |
| Income (loss) from continuing operations before income taxes |  | 654.5 |  | 592.1 |  | 774.2 |
| Income tax benefit (expense) |  | (84.0) |  | (154.5) |  | (99.4) |
| Net income (loss) from continuing operations |  | 570.5 |  | 437.6 |  | 674.8 |
| Income (loss) from discontinued operations, net of tax |  | 2.0 |  | 1.5 |  | 2.3 |
| Net income (loss) including noncontrolling interests |  | 572.5 |  | 439.1 |  | 677.1 |
| Less: Net (income) loss atributable to noncontrolling interests |  | (5.2) |  | 3.9 |  | (0.8) |
| Net income (loss) attributable to Molson Coors Brewing Company | S | 567.3 | S | 443.0 | S | 676.3 |
| Basic net income (loss) attributable to Molson Coors Brewing Company per share: |  |  |  |  |  |  |
| From continuing operations | S | 3.09 | S | 2.44 | S | 3.65 |
| From discontinued operations |  | 0.01 |  | 0.01 |  | 0.01 |
| Basic net income (loss) attributable to Molson Coors Brewing Company per share | S | 3.10 | S | 2.45 | S | 3.66 |
| Diluted net income (loss) attributable to Molson Coors Brewing Company per share: |  |  |  |  |  |  |
| From continuing operations | S | 3.07 | S | 2.43 | S | 3.62 |
| From discontinued operations |  | 0.01 |  | 0.01 |  | 0.01 |
| Diluted net income (loss) attributable to Molson Coors Brewing Company per share | S | 3.08 | S | 2.44 | S | 3.63 |
| Weighted-average shares-basic |  | 183.0 |  | 180.8 |  | 184.9 |
| Weighted-average shares-diluted |  | 184.2 |  | 181.8 |  | 186.4 |
| Amounts attributable to Molson Coors Brewing Company |  |  |  |  |  |  |
| Net income (loss) from continuing operations | S | 565.3 | S | 441.5 | S | 674.0 |
| Income (loss) from discontinued operations, net of tax |  | 2.0 |  | 1.5 |  | 2.3 |
| Net income (loss) attributable to Molson Coors Brewing Company | S | 567.3 | S | 443.0 | S | 676.3 |

## Appendix 2-2

Table 2-B: Molson Coors Brewing Company Statement of Comprehensive Income

## MOLSON COORS BREWING COMPANY AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (IN MILLIONS)

|  | For the Years Ended |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2013 |  | December 29, 2012 |  | December 31, 2011 |  |
| Net income (loss) including noncontrolling interests | S | 572.5 | S | 439.1 | \$ | 677.1 |
| Other comprehensive income (loss), net of tax: |  |  |  |  |  |  |
| Foreign currency translation adjustments |  | (207.7) |  | 344.9 |  | (67.7) |
| Unrealized gain (loss) on derivative instruments |  | 35.5 |  | (26.4) |  | (6.1) |
| Reclassification of derivative (gain) loss to income |  | (3.2) |  | 8.6 |  | 19.4 |
| Pension and other postretirement benefit adjustments |  | 240.7 |  | (195.8) |  | (189.6) |
| Amortization of net prior service (benefit) cost and net actuarial (gain) loss to income |  | 46.4 |  | 30.9 |  | 10.2 |
| Ownership share of unconsolidated subsidiaries' other comprehensive income (loss) |  | 81.2 |  | (6.9) |  | (67.0) |
| Total other comprehensive income (loss), net of tax |  | 192.9 |  | 155.3 |  | (300.8) |
| Comprehensive income (loss) |  | 765.4 |  | 594.4 |  | 376.3 |
| Less: Comprehensive income (loss) atributable to noncontrolling interests |  | (5.2) |  | 3.9 |  | (0.8) |
| Comprehensive income (loss) attributable to Molson Coors Brewing Company | \$ | 760.2 | S | 598.3 | \$ | 375.5 |

[^3]
## Appendix 2-3

## Figure 2-C: Note One - Molson Coors Brewing Company Accounting Policies

## MOLSON COORS BREWING COMPANY AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (EXCERPTS)

1. Basis of Presentation and Summary of Significant Accounting Policies

Revenue Recognition
Our net sales represent the sale of beer and other malt beverages (including adjacencies, such as cider) net of excise taxes, the vast majority of which are brands that we own and brew ourselves. We import or brew and sell certain non-owned partner brands under licensing and related arrangements. In addition, we contract manufacture for other brewers in some of our markets.

Revenue is recognized when the significant risks and rewards of ownership, including the risk of loss, are transferred to the customer or distributor depending upon the method of distribution and shipping terms. The cost of various programs, such as price promotions, rebates and coupon programs are treated as a reduction of sales. In certain of our markets, slotting or listing fees are paid to customers and are also treated as a reduction of sales. Sales of products are for cash or otherwise agreed upon credit terms. Sales are stated net of incentives, discounts and returns.

We do not have standard terms that permit return of product; however, in certain markets where returns occur we estimate the amount of returns based on historical return experience and adjust our revenue accordingly. Products that do not meet our high quality standards are returned by the customer or recalled and destroyed and are recorded as a reduction of revenue. The reversal of revenue is recorded upon determination that the product will be recalled and destroyed. We estimate the costs required to facilitate product returns and record them in cost of goods sold as required.

In addition to supplying our own brands, the U.K. business (within our Europe segment) sells other beverage companies' products to on-premise customers to provide them with a full range of products for their retail outlets. We refer to this as the "factored brand business." Sales from this business are included in our net sales and cost of goods sold when ultimately sold, but the related volume is not included in our reported sales volumes. In the factored brand business, we normally purchase inventory, which includes excise taxes charged by the vendor, take orders from customers for such brands, and invoice customers for the product and related costs of delivery. In accordance with guidance pertaining to reporting revenue gross as a principal versus net as an agent, sales under the factored brands are reported on a gross income basis.

Payments made to customers are conditional on the achievement of volume targets, marketing commitments, or both. If paid in advance, we record such payments as prepayments and amortize them in the consolidated statements of operations over the relevant period to which the customer commitment is made (up to five years). Where there is no sufficiently separate identifiable benefit, and the payment is linked to volumes, or fair value cannot be established, the amortization of the prepayment or the cost as incurred is included in sales discounts as a reduction to sales and where there are specific marketing activities/commitments the cost is included as marketing, general and administrative expenses. The amounts capitalized are reassessed regularly for recoverability over the contract period and are impaired where there is objective evidence that the benefits will not be realized or the asset is otherwise not recoverable.

In the U.K., loans are extended to a portion of the retail outlets that sell our brands. We reclassify a portion of beer revenue to interest income to reflect a market rate of interest on these loans. In fiscal years 2013,2012 and 2011 , these amounts were $\$ 4.9$ million, $\$ 5.7$ million, and $\$ 6.3$ million, respectively, included in the Europe segment.

## Excise Taxes

Excise taxes collected from customers and remitted to tax authorities are government-imposed excise taxes on beer shipments. Excise taxes on beer shipments are shown in a separate line item in the consolidated statements of operations as a reduction of sales. Sales taxes collected from customers are recognized as a liability, with the liability subsequently reduced when the taxes are remitted to the tax authority.

## Cost of Goods Sold

Our cost of goods sold includes costs we incur to make and ship beer. These costs include brewing materials, such as barley, hops and various grains. Packaging materials, including glass bottles, aluminum and steel cans, cardboard and paperboard are also included in our cost of goods sold. Additionally, our cost of goods sold include both direct and indirect labor, shipping and handling including freight costs, utilities, maintenance costs, depreciation, promotional packaging, other manufacturing overheads and costs to purchase factored brands from suppliers, as well as the estimated cost to facilitate product returns.

## Marketing, General and Administrative Expenses

Our marketing, general and administrative expenses include media advertising (television, radio, print), tactical advertising (signs, banners, point-ofsale materials) and promotion costs on both local and national levels within our operating segments. The creative portion of our advertising activities is expensed as incurred. Production costs of advertising and promotional materials are expensed when the advertising is first run. Advertising expense was $\$ 458.5$ million, $\$ 423.5$ million

Figure 2-D: Note One - Molson Coors Brewing Company Accounting Policies (cont.)
and $\$ 398.8$ million for fiscal years 2013, 2012 and 2011, respectively. Prepaid advertising costs of $\$ 13.8$ million and $\$ 23.9$ million, were included in other current assets in the consolidated balance sheets at December 31, 2013, and December 29,2012 , respectively.

This classification includes general and administrative costs for functions such as finance, legal, human resources and information technology, which consist primarily of labor and outside services, as well as bad debt expense related to our allowance for doubtful accounts. Unless capitalization is allowed or required by U.S. GAAP, legal costs are expensed when incurred. These costs also include our marketing and sales organizations, including labor and other overheads. This line item additionally includes amortization costs associated with intangible assets, as well as certain depreciation costs related to nonproduction equipment and share-based compensation.

Share-based compensation is recognized using a straight-line method over the vesting period of the awards. Certain share-based compensation plans contain provisions that accelerate vesting of awards upon change in control, retirement, disability or death of eligible employees and directors. Our share-based awards are considered vested when the employee's retention of the award is no longer contingent on providing service, which for certain awards can result in immediate recognition for awards granted to retirement-eligible individuals or accelerated recognition for awards granted to individuals that will become retirement eligible within the stated vesting period. Also, if less than the stated vesting period, we recognize these costs over the period from the grant date to the date retirement eligibility is achieved. We report the benefits of tax deductions in excess of recognized compensation cost as a financing cash flow, thereby reducing net operating cash flows and increasing net financing cash flows.

## Special Items

Our special items represent charges incurred or benefits realized that we do not believe to be indicative of our core operations; specifically, such items are considered to be one of the following:

- infrequent or unusual items,
- impairment or asset abandonment-related losses,
- restructuring charges and other atypical employee-related costs, or
- fees on termination of significant operating agreements and gains (losses) on disposal of investments.

Although we believe these items are not indicative of our core operations, the items classified as special items are not necessarily non-recurring.

## Equity Income in MillerCoors

Our equity income in MillerCoors represents our proportionate share for the period of the net income of our investment in MillerCoors accounted for under the equity method. Such amount typically reflects adjustments to eliminate intercompany gains and losses, and to amortize, if appropriate, any difference between cost and underlying equity in net assets upon the formation of MillerCoors.

## Interest Expense, net

Our interest costs are associated with borrowings to finance our operations. In addition to interest earned on our cash and cash equivalents across our business, interest income in the Europe segment is associated with trade loans receivable from customers, primarily in the U.K. As noted above, this includes a portion of beer revenue which is reclassified to interest income to reflect a market rate of interest on these loans. We capitalize interest cost as a part of the original cost of acquiring certain fixed assets if the cost of the capital expenditure and the expected time to complete the project are considered significant.

## Other Income (Expense)

Our other income (expense) classification primarily includes gains and losses associated with activities not directly related to brewing and selling beer. For instance, certain gains or losses on foreign exchange and on sales of non-operating assets are classified in this line item.

## Income Taxes

Deferred income taxes are provided for the temporary differences between the financial reporting basis and the tax basis of our assets, liabilities, and certain unrecognized gains and losses recorded in accumulated other comprehensive income (loss). We provide for taxes that may be payable if undistributed earnings of overseas subsidiaries were to be remitted to the U.S., except for those earnings that we consider to be permanently reinvested. Interest, penalties and offsetting positions related to unrecognized tax benefits are recognized as a component of income tax expense. Our deferred tax valuation allowances are primarily the result of uncertainties regarding the future realization of recorded tax benefits on tax loss carryforwards from our consolidated balance sheet includes our investment in Tradeteam of \$17.7 million. During the fiscal years ended 2013, 2012 and 2011, we recognized equity earnings from our Tradeteam investment of $\$ 4.6$ million, $\$ 6.0$ million and $\$ 6.4$ million, respectively, which are recorded within cost of goods sold

## Appendix 2-4

## Figure 2-E: Note 6

## 6. Other Income and Expense

The table below summarizes other income and expense:

|  | For the years ended |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2013 |  | December 29, 2012 |  | December 31, 2011 |  |
|  | (In millions) |  |  |  |  |  |
| Gain on sale of non-operating assets(1) | \$ | 23.5 | \$ | 5.2 | \$ | 1.0 |
| Bridge facility fees(2) |  | - |  | (13.0) |  | - |
| Euro currency purchase loss(3) |  | - |  | (57.9) |  | - |
| Gain from Foster's swap and related financial instruments(4) |  | - |  | - |  | 0.8 |
| Gain (loss) from other foreign exchange and derivative activity(5) |  | (7.8) |  | (25.2) |  | (6.9) |
| Loss related to the change in designation of cross currency swaps(6) |  | - |  | - |  | (6.7) |
| Other, net |  | 3.2 |  | 0.6 |  | 0.8 |
| Other income (expense), net | \$ | 18.9 | \$ | (90.3) | \$ | (11.0) |

(1) In 1991, we became a limited partner in the Colorado Rockies Baseball Club, Ltd. ("the Partnership"), treated as a cost method investment. Effective November 8,2013 , we sold our $14.6 \%$ interest in the Partnership and recognized a gain of $\$ 22.3$ million. We did not make any cash contributions in 2013, 2012 or 2011, and cash distributions, recognized within other income, from the Partnership were immaterial in 2013, 2012 and 2011.
Additionally, during the first quarter of 2013 , we realized a $\$ 1.2$ million gain for proceeds received related to a non-income-related tax settlement resulting from historical activity within our former investment in the Montreal Canadiens.

Included in this amount is a $\$ 5.2$ million gain related to the sale of water rights in 2012 . This also includes a related party gain of \$1.0 million in 2011 related to sales of non-core real estate in Golden, Colorado to MillerCoors for $\$ 1.0$ million. The selling price was based on a market appraisal by an independent third party.
(2) We incurred costs in connection with the issuance and subsequent termination of the bridge loan agreement entered into concurrent with the announcement of the Acquisition during the second quarter of 2012. See Note 13, "Debt" for further discussion.
(3) In connection with the Acquisition, we used the proceeds from our issuance of the $\$ 1.9$ billion senior notes to purchase Euros in the second quarter of 2012. As a result of a negative foreign exchange movement between the Euro and USD prior to using these proceeds to fund the Acquisition, we realized a foreign exchange loss on our Euro cash holdings.
(4) During 2010, we settled the majority of our Foster's Group Limited's ("Foster's") (ASX:FGL) total return swaps, which we used to gain an economic interest exposure to Foster's stock, and related option contracts, which we used to limit our exposure to future changes in Foster's stock price. The remaining total return swaps and related options matured in January of 2011.
(5) Included in this amount are losses of $\$ 2.4$ million and $\$ 23.8$ million for 2013 and 2012, respectively, related to foreign currency movements on foreign-denominated financing instruments entered into in conjunction with the financing and the closing of the Acquisition. Additionally, we recorded a net loss of $\$ 4.9$ million during 2013 , related to foreign cash positions and foreign exchange contracts entered into to hedge our risk associated with the payment of this foreign-denominated debt. See Note 13, "Debt" and Note 17, "Derivative Instruments and Hedging Activities" for further discussion of financing and hedging activities related to the Acquisition. Additionally, we recorded losses of $\$ 0.5$ million, $\$ 1.4$ million and S6.9 million related to other foreign exchange and derivative activity during 2013, 2012 and 2011, respectively.
(6) See Note 17, "Derivative Instruments and Hedging Activities" under "Cross Currency Swaps" sub-heading for further discussion.

## Figure 2-F: Note 6 (cont.)

The decrease in income tax expense in 2013 was primarily driven by the net foreign deferred tax benefits. These foreign deferred tax benefits largely resulted from the release of valuation allowances in Canada, as further discussed below, as well as decreases in deferred tax liabilities related to certain intangible assets that were impaired in 2013.

Our income tax expense varies from the amount expected by applying the statutory federal corporate tax rate to income as follows:

|  | For the years ended |  |  |
| :---: | :---: | :---: | :---: |
|  | December 31, 2013 | December 29, 2012 | December 31, 2011 |
| Statutory Federal income tax rate | 35.0 \% | 35.0 \% | 35.0 \% |
| State income taxes, net of federal benefits | 1.3 \% | 1.4 \% | 1.6 \% |
| Effect of foreign tax rates | (27.4)\% | (24.5)\% | (21.4)\% |
| Effect of foreign tax law and rate changes | 0.5 \% | 6.8 \% | (0.4)\% |
| Effect of unrecognized tax benefits | 3.3 \% | (0.7)\% | (1.1)\% |
| Change in valuation allowance | (1.5)\% | 6.0\% | -\% |
| Other, net | 1.6 \% | 2.1 \% | (0.9)\% |
| Effective tax rate | 12.8 \% | 26.1 \% | 12.8 \% |

Our fiscal year effective tax rate was approximately $13 \%$ in $2013,26 \%$ in 2012 and $13 \%$ in 2011 . Our effective tax rates were significantly lower than the federal statutory rate of $35 \%$ primarily due to the impact of lower effective income tax rates applicable to our foreign businesses and tax planning. In addition, as part of the Acquisition, the statutory tax rates in the countries of Central Europe, ranging from $9 \%$ to $20 \%$, in which we began doing business drove the 2013 and 2012 change in the effect of foreign tax rates versus 2011 . The 2012 foreign tax law and rate change impact, primarily relates to the increased statutory corporate income tax rate in Serbia from $10 \%$ to $15 \%$, effective January 1, 2013 (enacted in 2012). As a result of the impact of the rate change on differences between the book basis and tax basis of intangible and other assets purchased in the Acquisition, we increased our deferred tax liability by $\$ 38.3$ million in the fourth quarter of 2012 . We recorded additional tax expense in 2012 due to increases in our valuation allowance related to capital loss carryforwards and operating losses in several of our jurisdictions. See further discussion below.

## Appendix 2-5

Figure 2-G: Note 7

## 7. Income Tax

Our income (loss) from continuing operations before income taxes on which the provision for income taxes was computed is as follows:

|  | For the years ended |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2013 |  | December 29, 2012 |  | December 31, 2011 |  |
|  | (In millions) |  |  |  |  |  |
| Domestic | \$ | 809.7 | \$ | 712.8 | \$ | 767.2 |
| Foreign |  | (155.2) |  | (120.7) |  | 7.0 |
| Total | \$ | 654.5 | \$ | 592.1 | \$ | 774.2 |

Income tax expense (benefit) includes the following current and deferred provisions:

|  | For the years ended |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2013 |  | December 29, 2012 |  | December 31, 2011 |  |
|  | (In millions) |  |  |  |  |  |
| Current: |  |  |  |  |  |  |
| Federal | \$ | 39.1 | \$ | 45.5 | S | 29.8 |
| State |  | 11.8 |  | 8.3 |  | 5.7 |
| Foreign |  | 50.7 |  | 28.2 |  | 25.0 |
| Total current tax expense (benefit) | \$ | 101.6 | \$ | 82.0 | \$ | 60.5 |
| Deferred: |  |  |  |  |  |  |
| Federal | \$ | 59.6 | \$ | 47.9 | S | 58.8 |
| State |  | 5.1 |  | 6.3 |  | 2.1 |
| Foreign |  | (82.3) |  | 18.3 |  | (22.0) |
| Total deferred tax expense (benefit) | \$ | (17.6) | \$ | 72.5 | S | 38.9 |
| Total income tax expense (benefit) from continuing operations | \$ | 84.0 | \$ | 154.5 | S | 99.4 |

## Appendix 2-6

## Figure 2-H: Note 8

## 8. Special Items

We have incurred charges or recognized gains that we do not believe to be indicative of our core operations. As such, we have separately classified these charges (benefits) as special items. The table below summarizes special items recorded by segment:

|  | For the years ended |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | December 31, 2013 |  | December 29, 2012 |  | December 31, 2011 |  |
|  | (In millions) |  |  |  |  |  |
| Employee-related charges |  |  |  |  |  |  |
| Restructuring(1) |  |  |  |  |  |  |
| Canada | \$ | 10.6 | \$ | 10.1 | S | 0.6 |
| Europe |  | 14.5 |  | 19.8 |  | 2.1 |
| MCI |  | 0.4 |  | 3.0 |  | - |
| Corporate |  | 1.3 |  | 2.0 |  | - |
| Special termination benefits |  |  |  |  |  |  |
| Canada(2) |  | 2.2 |  | 5.0 |  | 5.2 |
| Impairments or asset abandonment charges |  |  |  |  |  |  |
| Canada - Intangible asset impairment(3) |  | 17.9 |  | - |  | - |
| Europe - Asset abandonment(4) |  | - |  | 7.2 |  | - |
| Europe - Intangible asset impairment(5) |  | 150.9 |  | - |  | - |
| MCI - China impairment and related costs(6) |  | - |  | 39.2 |  | - |
| Unusual or infrequent items |  |  |  |  |  |  |
| Canada - Flood loss (insurance reimbursement)(7) |  | - |  | (1.4) |  | 0.2 |
| Canada - BRI loan guarantee adjustment(8) |  | - |  | - |  | (2.0) |
| Canada - Fixed asset adjustment(9) |  | - |  | - |  | 7.6 |
| Europe - Release of non-income-related tax reserve(10) |  | (4.2) |  | (3.5) |  | (2.3) |
| Europe - Flood loss (insurance reimbursement)(11) |  | (2.0) |  | - |  | - |
| Europe - Costs associated with strategic initiatives |  | - |  | - |  | (0.1) |
| MCI - Costs associated with outsourcing and other strategic initiatives |  | - |  | - |  | 1.0 |
| Termination fees and other (gains)/losses |  |  |  |  |  |  |
| Europe - Tradeteam transactions(12) |  | 13.2 |  | - |  | - |
| MCI - Sale of China joint venture(6) |  | (4.8) |  | - |  | - |
| Total Special items, net | S | 200.0 | S | 81.4 | S | 12.3 |

(1) During 2013, 2012 and 2011, we recognized expenses associated with restructuring programs related to severance and other employee related charges. See further discussion of restructuring activities below.
(2) During 2013, 2012 and 2011, we recognized charges for pension curtailment and special termination benefits related to certain defined benefit pension plans in Canada. See Note 16, "Employee Retirement Plans and Postretirement Benefits" for impact to our defined benefit pension plans.
(3) During the fourth quarter of 2013, we recognized an impairment charge related to our definite-lived intangible asset associated with our licensing agreement with Miller in Canada. See Note 19, "Commitments and Contingencies" for further discussion.
(4) During the second quarter of 2012, we recognized an asset abandonment charge related to the discontinuation of primary packaging in the U.K. We determined that our Home Draft package was not meeting expectations driven by a lack of demand in the U.K. market and as a result, we recognized a loss related to the write-off of the Home Draft packaging line, tooling equipment and packaging materials inventory.
(5) During the third quarter of 2013, we recognized impairment charges related to indefinite-lived intangible assets in Europe. See Note 12, "Goodwill and Intangible Assets" for further discussion.

## CASE 3

## Pearson plc - Accounts Receivable

September 2017

## Introduction

Case three consisted of financial statements about an international company, from the United Kingdom, called Pearson plc. The case focused on accounts receivable and how to track the accounts receivable account as well as contra asset accounts relating to accounts receivable. The first part of the case required defining terms and explaining differences between certain accounts. One question asked about the percentage-of-sales method and the aging-of-receivables method when calculating allowance for bad debt. The second part of the case asked for details about the allowance accounts and accounts receivable account. T-charts were used to track the changes made in the allowance for bad debts, allowance for sales returns and allowances, and accounts receivable. The case also asked for journal entries to further prove the end balances of the accounts.

This case presented a couple of challenges. Since Pearson is a foreign company, the terminology in the financial statements differs from terminology in the United States. For example, Pearson refers to allowance accounts as provisions. During the accounts receivable $t$-chart, part of it requires a calculation of gross sales based on the net sales amount. This part seemed difficult at first, but after backtracking the calculation of net sales, the calculation for gross sales was clear. This case provided a unique opportunity to see the relationship between allowance accounts and accounts receivable. Tacking the costs allowed for clarity about how certain items influenced more than just the allowance accounts but ultimately the accounts receivable account and financial statements.

# Concept Based Question - Part A - What is an account receivable? What other names does this asset go by? 

Accounts Receivable is a current asset account that consists of amounts that a company expects to receive from customers in a short period of time, usually within the span of a year or operating cycle. Trade receivables are another name for accounts receivables.

## Concept Based Question - Part B - How do accounts receivable differ from notes receivable?

Notes receivable are formal promissory notes from one party promising to pay the other party the amount agreed upon. Accounts receivable are claims held by a company to whomever owes them money. Unlike notes receivable, accounts receivable is not a formal promise between parties. Also, notes receivable can be long-term or short-term, meaning the payment can be expected in more than a year (long-term) or less than a year (short-term). Accounts receivable are short-term. Additionally, notes receivable are often interest-bearing and accounts receivable are not.

# Concept Based Question - Part C - What is a contra account? What two contra accounts are associated with Pearson's trade receivables (see Note 22)? What types of activities are captured in each of these contra accounts? Describe factors that managers might consider when deciding how to estimate the balance in each of these contra accounts. 

A contra account is an account that has an abnormal balance. This account will reduce the asset, liability, or equity account it is paired with. For example, allowance for bad or doubtful accounts is considered a contra asset account. This means that the total from this account is deducted from accounts receivable when calculating net accounts receivable. Allowance for bad or doubtful accounts has a normal credit balance, whereas accounts receivable has a normal debit balance.

The two accounts associated with Pearson are allowance for bad or doubtful accounts and allowance for sales returns. The allowance for bad or doubtful accounts consists of an estimate made by the company of customers they expect to not pay their credit balances. In this case, under the allowance for bad or doubtful accounts, Pearson includes acquisitions, exchange differences, income statement movements and utilised activities. The allowance for sales returns consists of an estimate made by the company of the amount of products sold they expect customers to return. Pearson includes estimated sales returns and actual sales returns.

The company can base these estimates by taking a percentage of total sales or looking at previous financial statements. Looking at past financial statements can help managers because it provides insight into what occurred previously that might influence the current allowance accounts. For example, if a company consistently fails to collect a
certain range of accounts receivable, managers can estimate a number based on these past amounts. Another factor might be to look at the sales and take a certain percentage that the manager would expect to be uncollected or returned. Managers must consider who they sell products too and how trustworthy their customers are because this could influence the allowance for doubtful accounts. Also, managers must take into account the type of product or service they are providing. If a company is selling a new product, the company might expect more returns because people may not like the new product.

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

The percentage-of-sales procedure calculates the allowance for bad debts based on a certain percentage of sales. Usually the percentage is based on previous uncollected sales amounts. A manager would need to have access to past financial statements to see the past amounts for allowance for bad debts and to see the total sales from that same period.

The aging-of-accounts procedure calculates the allowance for bad debts based on how old accounts receivable accounts are. This approach follows the logic of the longer a debt is outstanding, the less likely it is to be paid. The company will sort out and group receivables based on how old they are. The newer receivables are assigned a lower
percentage while the older receivables are given a higher percentage. The total is added up to get an estimate for the allowance for bad debts. Managers would need all of the individual receivables with the dates included to be able to estimate allowance for bad debt expense under this approach.

The aging-of-accounts results in a more accurate approach to accounts receivable because it bases the total number on the idea that long outstanding debts will most likely not get paid. The percentage-of-sales approach might be easier to calculate and less time consuming, but the aging-of-accounts approach factors in time, while the percentage-ofsales approach fails to.

## Concept Based Question - Part E - If Pearson anticipates that some accounts will be uncollectible, why did the company extend credit to those customers in the first place? Discuss the risks that managers must consider with respect to accounts receivable.

When making sales to customers, the company has no way of truly knowing if a customer will pay or not. While they can look up credit scores for each individual customer, that would be time consuming and would most likely not be worth the costs. Also, Pearson does not have a definite way to determine which customers will and will not pay their bills.

Managers take a risk that the credit extended does not ultimately get collected. This means that sales could be less than they should be and the company has the potential to lose a large amount of revenue if a significant portion of the accounts receivable fails to be collected.

Process Based Questions - Part F - Note 22 reports the balance in Pearson's provision for bad and doubtful debts (for trade receivables) and reports the account activity ("movements") during the year ended December 31, 2009. Note that Pearson refers to the trade receivables contra account as a "provision." Under U.S. GAAP, the receivables contra account is typically referred to as an "allowance" while the term provision is used to describe the current-period income statement charge for uncollectible accounts (also known as bad debt expense). Part i. Use the information in Note 22 to complete a T-account that shows the activity in the provision for bad and doubtful debts account during the year. Explain, in your own words, the line items that reconcile the change in account during 2009.

| Allowance for Bad Debts |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | 72 | Beg. Bal. |
| Exchange difference | 5 |  |  |
|  |  | 26 | Income State. Movements |
| Utilised | 20 |  |  |
|  |  | 3 | Acquisitions |
|  |  | 76 | End Bal. |

The exchange difference is due to adjustments Pearson had to make when converting cash received to the appropriate currency. The income statement movements refer to expenses and revenues. In this case, the income statement movements refer to the estimated bad debt expense for this year. The utilised line item is a write off of bad
debts. The acquisitions are from Pearson absorbing other allowances for bad debts from acquired companies.

Part ii. Prepare the journal entries that Pearson recorded during 2009 to capture 1) bad and doubtful debts expense for 2009 (that is, the "income statement movements") and 2) the write-off of accounts receivable (that is, the amount "utilised") during 2009. For each account in your journal entries, note whether the account is a balance sheet or income statement account.

1) Bad Debt Expense 26

Allowance for Bad Debt Expense 26
2) Allowance for Bad Debt Expense 20

Accounts Receivable 20
The bad debt expense is an income statement account. Allowance for bad debt expense and accounts receivable are balance sheet accounts.

Part iii. Where in the income statement is the provision for bad and doubtful debts expense included?

The allowance for bad and doubtful debts expense would be classified under selling expenses and be included in the operating section as an operating expense.


#### Abstract

Process Based Questions - Part G - Note 22 reports that the balance in Pearson's provision for sales returns was $£ 372$ at December 31, 2008 and $£ 354$ at December 31, 2009. Under U.S. GAAP, this contra account is typically referred to as an "allowance" and reflects the company's anticipated sales returns.

Part i. Complete a T-account that shows the activity in the provision for sales returns account during the year. Assume that Pearson estimated that returns relating to 2009 Sales to be $£ 425$ million. In reconciling the change in the account, two types of journal entries are required, one to record the estimated sales returns for the period and one to record the amount of actual book returns.


Allowance for Sales Returns and Allowances

|  | 372 | Beg. Bal. |
| :--- | :--- | ---: |
| Actual Sales Returns | 443 |  |
| Estimated Sales |  |  |
|  | 325 |  |

Part ii. Prepare the journal entries that Pearson recorded during 2009 to capture, 1) the 2009 estimated sales returns and 2) the amount of actual book returns during 2009. In your answer, note whether each account in the journal entries is a balance sheet or income statement account.

1) Sales Returns and Allowances 425

Allowance for Sales Returns and Allowances 425
2) Allowance for Sales Returns and Allowances 443

Accounts Receivable 443

Sales returns and allowances is an income statement account. Allowance for sales returns and allowances and accounts receivable are balance sheet accounts.

Part iii. In which income statement line item does the amount of 2009 estimated sales returns appear?

Sales returns and allowances are a contra asset account and would be deducted from total sales revenue. It would appear below the sales revenue account.

Process Based Questions - Part H - Create a T-account for total or gross trade receivables (that is, trade receivables before deducting the provision for bad and doubtful debts and the provision for sales returns). Analyze the change in this Taccount between December 31, 2008 and 2009. Assume that all sales in 2009 were on account. That is, they are all "credit sales." You may also assume that there were no changes to the account due to business combinations or foreign exchange rate changes. Prepare the journal entries to record the sales on account and accounts receivable collection activity in this account during the year.

Accounts Receivable (gross)

| Beg. Bal. | 1474 |  |  |
| :--- | :---: | :--- | :--- |
| Credit Sales (gross)* | 6049 |  |  |
|  |  | 5641 | Cash Collections |
|  |  | 20 | Utilised (write offs) |
|  |  | 443 | Sales Returns (actual) |
| End Bal. |  |  |  |

*Credit Sales (gross) calculation: 5624 in sales +425 in estimated sales returns and allowances $=6049$ in credit sales

To record sales on account:

Accounts Receivable 6,049
Sales 6,049

To record accounts receivable collection activity:

```
Cash 5,641
    Accounts Receivable 5,641
```


## Appendix 3-1

Figure 3-A: Income Statement (where gross sales number was found)

| Consolidated income statement Year ended 31 December 2009 |  |  |  |
| :---: | :---: | :---: | :---: |
| Allfigures in $£$ millions | Notes | 2009 | 2008 |
| Continuing operations |  |  |  |
| Sales | 2 | 5,624 | 4,811 |
| Cost of goods sold | 4 | $(2,539)$ | (2,174) |
| Gross profit |  | 3,085 | 2,637 |
| Operating expenses | 4 | $(2,360)$ | $(1,986)$ |
| Share of results of joint ventures and associates | 12 | 30 | 25 |

## Appendix 3-2

Figure 3-B: Case Note 22


Figure 3-C: Case Note 22 (cont.)
22. Trade and other receivables continued

The ageing of the Group's trade receivables is as follows:

| All figures in $£$ millions | 2009 | 2008 |
| :--- | ---: | ---: | ---: |
| Within due date | 1,096 | 1,110 |
| Up to three months past due date | 228 | 248 |
| Three to six months past due date | 51 | 60 |
| Six to nine months past due date | 20 | 21 |
| Nine to 12 months past due date | 4 | 15 |
| More than 12 months past due date | 20 | 20 |
| Total trade receivables | 1,419 | 1,474 |
| Less: provision for bad and doubtful debts | $(76)$ | $(72)$ |
| Less: provision for sales returns | $(354)$ | $(372)$ |
| Net trade receivables | 989 | 1,030 |

The Group reviews its bad debt provision at least twice a year following a detailed review of receivable balances and historic payment profiles. Management believe all the remaining receivable balances are fully recoverable.

## Case 4

# Accountancy 303 Problem - Ch. 5 Pr. 5 

October 2017

## Introduction

This case focuses on difficult problems from intermediate accounting. It will be a step-by-step approach to solving the problem and explaining the solution. The problem focuses on the balance sheet and how to adjust accounts and classify accounts in the correct categories. The question lists seven points of information about accounts that either need to be adjusted or reclassified. The solution presented explains what to do at each point, followed by a balance sheet. This case helped reinforce which accounts go into which categories. For example, the bond sinking fund is classified as an investment. The problem also helped review the major concepts of chapter five.

## Ch. 5 - Pr. 5-5

(Problem presents a balance sheet followed by adjusting information needed to correct the balance sheet.)

1. First, adjust the current assets section. Current assets include cash, ST investments, accounts receivable, inventory and prepaid accounts. The cash account, accounts receivable and inventories do not need to be adjusted, so they can stay at their respective balances. Allowance for doubtful accounts is a contraasset account, so it needs to be listed under accounts receivable and deducted from that balance. Unearned rent revenue is not a current asset so it needs to be moved to the current liabilities section of the balance sheet.
2. The investment section can include items like the cash surrender of a life insurance contract, long-term investments and sinking funds. Short-term investments are classified under current assets though, so that account should not be in the investment section.
3. PPE includes equipment, buildings and land. Make sure to list the accumulated depreciation from each account right below. Land held for future use is considered an investment because it is not currently being used, so it would be classified as an investment.
4. Intangible assets include franchises and goodwill. The discount on bonds payable is not considered an intangible asset. It is a contra-liability account and should be in the long-term liabilities section, below bonds payable.
5. Current liabilities are liabilities that the company expects to liquidate within one year or operating cycle. Accounts such as unearned rent revenue, accounts
payable, notes payable (short-term) and income tax payable are all considered current liabilities. The long-term notes payable is not considered a current liability, but rather a long-term liability.
6. The long-term liabilities amount listed is only the bonds payable account (which is $1,000,000$ ). Meaning that bonds payable is $1,000,000$ and should be classified as a long-term liability (they are not due until 2025).
7. The stockholders' equity will consist of preferred stock of $\$ 450,000$, retained earnings of $\$ 320,000$, common stock issued at par of $\$ 100,000$ total and common stock issued above par of $\$ 900,000$.

Table 4-A: Sargent Corporation Balance Sheet Part 1

Sargent Corporation
Balance Sheet
December 31, 2017

| Current Assets |  |  |  |
| :---: | :---: | :---: | :---: |
| Cash |  |  | 150,000 |
| A/R | 170,000 |  |  |
| Less: AFD | 10,000 |  | 160,000 |
| ST invest |  |  | 80,000 |
| Inv (stated lower of FIFO cost or net realizable value) |  |  | 180,000 |
| Total Current Assets |  | \$ | 570,000 |
| Investments |  |  |  |
| Land for future use |  |  | 270,000 |
| Cash surrender value of life insurance |  |  | 40,000 |
| Invest. In C/S - LT |  |  | 270,000 |
| Bond Sinking fund |  |  | 250,000 |
| Total Investments |  | \$ | 830,000 |
| PPE |  |  |  |
| Buildings | 1,040,000 |  |  |
| Less: accumulated depreciation | 360,000 |  | 680,000 |
| Equipment | 450,000 |  |  |
| Less: accumulated depreciation | 180,000 |  | 270,000 |
| Land |  |  | 500,000 |
| Total PPE |  | \$ | 1,450,000 |
| Intangibles |  |  |  |
| Franchise |  |  | 165,000 |
| Goodwill |  |  | 100,000 |
| Total intangibles |  | \$ | 265,000 |
| Total Assets |  | \$ | 3,115,000 |

Table 4-B: Sargent Corporation Balance Sheet Part 2

Sargent Corporation
Balance Sheet
December 31, 2017

| Current Liabilities |  |  |  |
| :---: | :---: | :---: | :---: |
| A/P |  |  | 140,000 |
| N/P - Short-term |  |  | 80,000 |
| Tax payable |  |  | 40,000 |
| Unearned rent revenue |  |  | 5,000 |
| Total current liabilities |  | \$ | 265,000 |
| LT liabilities |  |  |  |
| N/P - LT |  |  | 120,000 |
| B/P | 1,000,000 |  |  |
| Discount on B/P | 40,000 |  | 960,000 |
| Total LT liabilities |  | \$ | 1,080,000 |
| Stockholders' equity |  |  |  |
| Preferred stock |  |  | 450,000 |
| Common Stock - par |  |  | 100,000 |
| Common stock - above par |  |  | 900,000 |
| Retained Earnings |  |  | 320,000 |
| Total Stockholders' equity |  | \$ | 1,770,000 |
| Total Liabilities/ Stockholder's Equity |  | \$ | 3,115,000 |

## CASE 5

# Palfinger AG - Property, Plant and Equipment 

November 2017

## Introduction

This case consisted of several concepts relating to property, plant and equipment, and how to account for this asset correctly. At first, the case required a concept review, asking questions about what property, plant and equipment consists of and what certain numbers on financial statements represent. From there, the case moved into process based questions asking for more analysis of numbers and calculations of depreciation and net book value. Overall, the case helped review what PP\&E consists of and how to calculate straight-line and double-declining-balance depreciation.

A few parts of the case were challenging. Part g. (ii.) asked about government grants and how to account for them. This was a new concept and required more research into how to correctly report grants on financial statements. Another aspect of the case asked about comparisons between straight-line depreciation and double-decliningbalance depreciation. When first learning these concepts in earlier accounting classes, there was never really a comparison between the two methods using numbers. It was interesting to see how the numbers were influenced by the change of depreciation methods and the overall impact they carried with them to different financial statements.

Palfinger is an international company, meaning they use international accounting standards. When trying to figure out how to account for items, the IASB's rules were referenced. This provided an opportunity to learn more about international account standards and how other companies outside of the United States report items.

## Concept Based Questions - Part A - Based on the description of Palfinger above, what sort of property and equipment do you think the company has?

The company probably has construction equipment, heavy machinery, and areas they can construct these large pieces of equipment, such as large factories. Also, they need to have a way to transport the products they build. Palfinger most likely has transportation vehicles in their PP\&E as well.

Concept Based Questions - Part B - The 2007 balance sheet shows property, plant, and equipment of $€ 149,990$. What does this number represent?

The number represents the value of the PP\&E the company owns after adjustment for depreciation. In note 2 , the company details how they arrived at their final number of 149,990. As of December 31, 2007, Palfinger had 229,259 in total acquisition cost. They also had 79,269 in total accumulated depreciation and impairment costs. To arrive at the carrying value, 79,269 is subtracted from 229,259 to result in a carrying value of 149,990 . The carrying value is what is reported on the balance sheet.

Concept Based Questions - Part C - What types of equipment does Palfinger report in notes to the financial statements?

Palfinger reports plant, machinery, fixtures, fittings, equipment, buildings, and investments in third-party buildings. All of these types of equipment are fairly standard for a company to report under PP\&E.

Concept Based Questions - Part D - In the notes, Palfinger reports "Prepayments and assets under construction." What does this subaccount represent? Why does this account have no accumulated depreciation? Explain the reclassification of $€ 14,958$ in this account during 2007.

This subaccount represents the company's allocation of costs and expenses for assets they priced themselves (usually machinery or fixed assets that fail to have a purchase or contract price).

Assets can only be depreciated if they are available for use. Since this account is similar to a prepaid account, and the building is still being built, it is not available for use and therefore cannot be depreciated.

The reclassification is the company moving the costs towards the physical building/finished product. The reclassification is the credit of the "building in progress" account and the debit of the "buildings" account.

Concept Based Questions - Part E - How does Palfinger depreciate its property and equipment? Does this policy seem reasonable? Explain the trade-offs management makes in choosing a depreciation policy.

Palfinger uses straight-line depreciation for depreciating its property and equipment. This policy allows for the depreciation expense to be recorded in a simplistic way and prevents the company from paying a large depreciation expense upfront for the equipment. Straight-line depreciation allows for the same estimate of depreciation expense every year. However, the estimated service life must be accurate for this to work well for the company. If the service life estimation is off, the company risks misstating
the value of the equipment, affecting the overall PP\&E account balance. Also, if depreciation expense is misstated using this policy, the company might end up paying more than they originally thought in deprecation expenses.

When choosing a depreciation policy, management makes trade-offs. For example, if Palfinger were to choose double declining balance deprecation, the company would pay a large amount in depreciation expense for the first few years they owed the equipment. The advantage would be that as the longer they kept the equipment, the more depreciation expense would decrease every year. By choosing straight-line depreciation, the company is assuming the equipment will depreciate at the same rate every year, which may not occur. Also, the company might overstate PP\&E and understate depreciation expenses resulting in an overall overstatement of net income. The advantage of this method is that depreciation expense is the same every year and is usually a lower amount compared to DDB.

## Concept Based Questions - Part F - 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?

There are a few ways to account for renovations, either to expense the renovations on the income statement under expenses or deduct them from PP\&E. Palfinger chooses to deduct the renovations from PP\&E. This is seen in note 2 under the title "accumulated depreciation and impairment".

# Process Based Questions - Part G - Use the information in the financial statement notes to analyze the activity in the "Property, plant and equipment" and "Accumulated depreciation and impairment" accounts for 2007. Determine the following amounts: 

i. The purchase of new property, plant and equipment in fiscal 2007.

The purchase of new PP\&E in 2007 is 61,444 thousand euros. This number is found in the notes under "additions" for January $1^{\text {st }} 2007$ to December 31 ${ }^{\text {st }}, 2007$.
ii. Government grants for purchases of new property, plant and equipment in 2007. Explain what these grants are and why they are deducted from the property, plant, and equipment account.

Government grants for the purchase of new PP\&E in 2007 total to 733 thousand euros. This number is found in note 2 under January 1, 2007 at the intersection between the government grant row and the total column.

These grants are money given to Palfinger by the government for the purchase of new PP\&E. Grants can be reported in two ways according to IAS 20, either as deferred income or subtracting the grant amount from the carrying value of the asset. Palfinger chooses to report their grants as a deduction from the carrying value of the asset. This way of reporting the grants buries the grants in the statements and makes finding them less clear than if they were to be reported as deferred income.
iii. Depreciation expense for fiscal 2007.

The depreciation expense for 2007 is 12,557 thousand euros. This number is found in note 2 under the depreciation and impairment section, listed under the intersection between depreciation and total.
iv. The net book value of property, plant, and equipment that Palfinger disposed of in fiscal 2007.

To find the net book value of PP\&E that was disposed of, requires finding two numbers. Under the acquisition cost, there's a row for the year 2007 called "disposals", the total disposals for 2007 was 13,799 thousand euros. Next, to find the accumulated depreciation of the disposals, look under the accumulated depreciation and impairment table for 2007 and in the total column for disposals a value of 12,298 thousand euros is listed. To get the net book value of the disposals, the accumulated depreciation is subtracted from the acquisition cost. So, $13,799-12,298=1,501$ or the net book value.

## Process Based Questions - Part H - The statement of cash flows (not presented) reports that Palfinger received proceeds on the sale of property, plant, and equipment amounting to $€ \mathbf{£ 1 , 6 5 5}$ in fiscal 2007. Calculate the gain or loss that Palfinger incurred on this transaction. Hint: use the net book value you calculated in part $\mathbf{g}$ iv, above. Explain what this gain or loss represents in economic terms.

Based on the net book value calculated in part $\mathrm{g}(1,501)$, Palfinger incurred a gain of 154 thousand euros $(1,655-1,501)$. The reason for the gain is because the book value of 1,501 thousand euros is less than the 1,655 thousand euros Palfinger made from selling
their PP\&E. In economic terms, this gain represents an inflow of cash on the statement of cash flows.

Process Based Questions - Part I - Consider the $€ 10,673$ added to "Other plant, fixtures, fittings, and equipment" during fiscal 2007. Assume that these net assets have an expected useful life of five years and a salvage value of $€ \mathbf{€ 1 , 2 7 3}$. Prepare a table showing the depreciation expense and net book value of this equipment over its expected life assuming that Palfinger recorded a full year of depreciation in 2007 and the company uses:
i. Straight-line depreciation.

Table 5-A: Straight-line depreciation 2007 - 2011

| Year | Beginning <br> Book Value | Depreciation <br> Expense | Accumulated <br> Depreciation | Ending <br> Book <br> Value |
| ---: | ---: | ---: | ---: | ---: |
| 2007 | 10,673 | 1,880 | 1,880 | 8,793 |
| 2008 | 8,793 | 1,880 | 3,760 | 6,913 |
| 2009 | 6,913 | 1,880 | 5,640 | 5,033 |
| 2010 | 5,033 | 1,880 | 7,520 | 3,153 |
| 2011 | 3,153 | 1,880 | 9,400 | 1,273 |

## ii. Double-declining-balance depreciation.

Table 5-B: Double-Declining-Balance Depreciation 2007 - 2011

| Year | Beginning <br> Book <br> Value | Declining <br> Balance <br> Rate | Depreciation <br> expense | Accumulated <br> Depreciation | Ending <br> Book <br> Value |
| :---: | ---: | ---: | ---: | ---: | :---: |
| 2007 | $10,673.00$ | $40 \%$ | $4,269.20$ | $4,269.20$ | $6,403.80$ |
| 2008 | $6,403.80$ | $40 \%$ | $2,561.52$ | $6,830.72$ | $3,842.28$ |
| 2009 | $3,842.28$ | $40 \%$ | $1,536.91$ | $8,367.63$ | $2,305.37$ |
| 2010 | $2,305.37$ | $40 \%$ | 922.15 | $9,289.78$ | $1,383.22$ |
| 2011 | $1,383.22$ | $40 \%$ | 110.22 | $9,400.00$ | $1,273.00$ |

## Process Based Questions - Part J - Assume that the equipment from part i. was sold on the first day of fiscal 2008 for proceeds of $€ \mathbf{€}, 500$. Assume that Palfinger's accounting policy is to take no depreciation in the year of sale.

i. Calculate any gain or loss on this transaction assuming that the company used straight-line depreciation. What is the total income statement impact of the equipment for the two years that Palfinger owned it? Consider the gain or loss on disposal as well as the total depreciation recorded on the equipment (i.e. the amount from part i. i.).

Palfinger would have sold their equipment at 7500 . Using straight-line depreciation, the value of the equipment at the beginning of 2008 is 8793 . Therefore, Palfinger takes a loss on the sale of the equipment.

The journal entry would look like this:
Cash or $\mathrm{A} / \mathrm{R} 7,500$
Loss of sale on equipment 1,293
Accumulated depreciation 1,880
Equipment 10,673

Through the sale of the equipment, the company saves on depreciation expense and revenues would increase by 7,500 . By selling the equipment at the start of 2008, Palfinger will not have to pay 1,880 of depreciation expenses for the next four years. Net income will increase due to the decrease in depreciation expense. However, the loss on the sale of equipment will be deducted from net income at the end of the period, reducing income by 1,293.
ii. Calculate any gain or loss on this transaction assuming the company used double-declining-balance depreciation. What is the total income statement impact of this equipment for the two years that Palfinger owned them? Consider the gain or loss on disposal as well as the total depreciation recorded on the equipment (i.e. the amount from part i. ii.).

Palfinger sold their equipment for 7,500 . Using double declining depreciation, the value of the equipment at the beginning of 2008 is $6,403.8$, meaning Palfinger gained 1,096.20 through the sale.

The journal entry would look like this:

Cash or A/R 7,500
Accumulated depreciation 4,269.20
Equipment 10,673
Gain on sale of equipment $1,096.20$

By selling the equipment, Palfinger increased its revenues to 7,500 for 2008 and took away their depreciation expense for this equipment for the next four years. For the first two years that Palfinger owned the equipment, they payed 4,269.20 in depreciation expenses. Since this method depreciates assets at a quick rate, Palfinger paid the bulk of
its depreciation expense for the equipment before they sold it. However, the gain on sale of equipment would be reported on the income statement and increase the income statement by the amount of the gain.
iii. Compare the total two-year income statement impact of the equipment under the two depreciation policies. Comment on the difference.

Under straight-line depreciation, the net income decreases by 1,293 from the loss but depreciation expense decreases by 1,880 . Therefore, there is still an overall increase in net income of 587 compared to if the sale did not occur at all. However, the company has already paid 1,880 from the 2007 depreciation expense. Taking this into account, the company lost approximately 1,293 from acquiring and then selling this equipment.

Under double-declining-balance deprecations, net income increases by $1,096.20$ from the gain of the sale and depreciation expense decreases by $2,561.52$ (this amount is the depreciation amount for 2008 and would be what the company would pay if they had not sold the equipment). Therefore, compared to if they kept the equipment, under this depreciation method, net income would increase overall by 3,657.72. However, while this is a positive result, the company has already spent 4,269.20 on depreciation expenses for the first year they had the equipment. The amount gained from the selling the equipment is less than the amount they have paid overall for it. Taking this into account, Palfinger ultimately lost 611.48 from owning and then selling this equipment. The combined income statement impact for DDB and Straight-line will be the same even though the short term impacts are different.

## CASE 6

## Volvo - Research and Development Costs

November 2017

## Introduction

This case involves analyzing how companies classify research and development expenses. Volvo is an international company, following IFRS standards. Since they follow international standards, they can capitalize the development portion of R\&D expenses rather than expensing the total amount of $R \& D$ expenses. The case shows how following the international standard can affect financial statements and other aspects of the company as well.

The case requires an understanding of IAS 38 and how Volvo might apply this standard for classifying their expenses. The last part of the case compares Volvo to Navistar, highlighting the major differences between following the IFRS and GAAP for R\&D expenses. The case also asked for the difference between what can classify as a research expense and what can classify as a development expense.

I learned how companies can classify $R \& D$ costs and that there is ambiguity at times when interpreting accounting standards. This case was interesting because the company is an international company and there were certain elements that were different than American companies. For example, Volvo uses the Swedish Krona for currency and it was a little confusing at first because it was unfamiliar. Also, most of the time, GAAP standards are taught and referred to and learning about how event slight differences in standards can greatly influence companies was interesting. The case really made you think about why GAAP requires companies to expense all R\&D while IFRS allows companies to capitalize a portion of it and which approach would be best.

Concept based question - Part A - The 2009 income statement shows research and development expenses of SEK 13,193 (millions of Swedish Krona). What types of costs are likely included in these amounts?

Research activities aim to investigate or discover new knowledge. Examples of a research cost would be finding ways to apply new research findings or searching for possible solutions/alternatives to improve a product.

Development activities are plans or designs based on research findings for a product intended for sale or use. Examples of development costs include construction of prototypes or implementing a pilot program.

Research and development expenses could also include design costs, expenditures into new products, testing costs (to test products), development costs associated with creating new products or researching options for new products.

For Volvo specifically, they might have costs relating to car designs, engineering costs, testing designs for cars, research into new technology for cars, etc.

Concept based question - Part B - Volvo Group follows IAS 38-Intangible Assets, to account for its research and development expenditures (see IAS 38 excerpts at the end of this case). As such, the company capitalizes certain R\&D costs and expenses others. What factors does Volvo Group consider as it decides which R\&D costs to capitalize and which to expense?

Since Volvo follows IAS 38, the factors they consider when deciding which R\&D costs to capitalize must align with IAS 38. According to IFRS, development expenditures can be capitalized, but research expenditures cannot be capitalized. To
determine the difference between the two, IAS 38 outlines a few guidelines for companies to follow. If a company cannot separate a project into a research and development phase, it accounts for the entire project as research and therefore cannot capitalize any portion of the project. Research expenses should be recognized when incurred and cannot be capitalized because a company cannot prove that these expenditures will lead to economic gain.

Development expenditures can be capitalized if a company can prove:

- A high probability of completing the intangible
- The intention to complete the intangible and use or sell it
- An ability to use/sell the asset
- The intangible can provide economic gains - either through market demand for the product, the existence of the asset or through the usefulness of the product
- The company has the required resources to finish the product development
- The company can accurately allocate/measure costs of the intangible during its development

Once a company proves that the intangible asset meets all of the previous six requirements, they can capitalize the asset.

Concept based question - Part C - The R\&D costs that Volvo Group capitalizes each period (labeled Product and software development costs) are amortized in subsequent periods, similar to other capital assets such as property and equipment. Notes to Volvo's financial statements disclose that capitalized product and software
development costs are amortized over three to eight years. What factors would the company consider in determining the amortization period for particular costs?

The company should consider the useful life of the intangible. For example, for software development costs, the company might want to consider how quickly technology will change, and the length of time needed to implement the new software. For product development costs the company might want to take into consideration market demand for the product and the timeline needed to complete the product so it is ready to sell or use.

Concept based question - Part D - Under U.S. GAAP, companies must expense all R\&D costs. In your opinion, which accounting principle (IFRS or U.S. GAAP) provides financial statements that better reflect costs and benefits of periodic R\&D spending?

I think the international standard better reflects the benefits a company receives from R\&D. However, it is still contingent on the company actually receiving the perceived economic gain from the development phase of the project. If a company failed to actually benefit from the development phase for an unforeseen reason, the financial statements would have misled investors. This could lead to negative impacts not only for investors but for the company in the future as the company would lose credibility with investors. The international approach is less conservative than GAAP. Furthermore, the GAAP standard better reflects the costs of R\&D but fails to acknowledge the benefits of R\&D.

From an investor point of view, GAAP might better reflect R\&D as a whole because investors would be aware of the total costs incurred from R\&D and would not be as negatively impacted if the company did not benefit from the development phase of the project because they would not have been misled from the beginning.

Companies would probably prefer to follow the IFRS standard but investors would probably prefer companies to follow the GAAP standard. Overall, I think the best accounting principle to follow is the GAAP approach because this approach correctly states expenses and liabilities. Whereas the international approach understates expenses leading to an understatement of liabilities and an overstatement of net income and assets.

## Process based question - Part E - Refer to footnote 14 where Volvo reports an intangible asset for "Product and software development." Assume that the product and software development costs reported in footnote 14 are the only R\&D costs that Volvo capitalizes.

i. What is the amount of the capitalized product and software development costs, net of accumulated amortization at the end of fiscal 2009? Which line item on Volvo Group's balance sheet reports this intangible asset?

The amount of capitalized product and software development costs (net of accumulated depreciation) at the end of 2009 is 11,409 SEK (in millions). This number comes from taking the total cost from 2009 of 25,148 SEK M and deducting the accumulated amortization of 13,739 SEK M.

This intangible is reported under "intangible assets" valued at 41,628 SEK M. This is the total amount of intangibles; the 11,409 SEK M is part of the total amount listed.
ii. Create a T-account for the intangible asset "Product and software development," net of accumulated amortization. Enter the opening and ending balances for fiscal 2009. Show entries in the T-account that record the 2009 capitalization (capital expenditures) and amortization. To simplify the analysis, group all other account activity during the year and report the net impact as one entry in the T-account.

Capitalization of Product and Software, net

| Beg Bal. | 12,381 |  |  |
| :--- | ---: | ---: | ---: |
| Amnts. Capitalized 2,602 |  |  |  |
|  |  | 3,126 | amortization |
|  | 448 | (plug) |  |
| End Bal. | 11,409 |  |  |

Process based question - Part F - Refer to Volvo's balance sheet, footnotes, and the eleven-year summary. Assume that the product and software development costs reported in footnote 14 are the only R\&D costs that Volvo capitalizes.
i. Complete the table below for Volvo's Product and software development intangible asset.

Table 6-A: Volvo's Product and Software Intangible Asset

| (in SEK M) | 2007 | 2008 | 2009 |
| :--- | :--- | :--- | :--- |
| 1) Product and <br> software <br> development costs <br> capitalized during <br> year | $2,057^{*}$ | $2,150^{*}$ | $2,602^{* * *}$ |
| 2) total R\&D <br> expenses on I/S | $11,059^{* *}$ | $14,348^{* *}$ | $13,193^{* *}$ |
| 3) Amort of <br> previously cap costs <br> (include R\&D <br> expense) | $2,357^{*}$ | $2,864^{*}$ | $3,126^{* * *}$ |
| 4) Total R\&D costs <br> incurred during year <br> $=1+2-3$ | 10,759 | 13,364 | 12,669 |

*Given from case
** Found in note 14 under 11-year summary
***Found in note 14 first page
iii. What proportion of Total $R \& D$ costs incurred did Volvo Group capitalize (as product and software development intangible asset) in each of the three years?

In 2007, Volvo capitalized $19.82 \%$ of its total R\&D expenses. In 2008, Volvo capitalized $16.09 \%$ of its total R\&D expenses and in $2009,20.54 \%$. Volvo is capitalizing close to one-fifth of its R\&D expenses each year.

Calculations: 2007: 2,057/10,759 $=19.82 \%$
2008: $2,150 / 13,364=16.09 \%$
2009: 2,602/12.669 $=20.54 \%$

Analysis based question - Part G-Assume that you work as a financial analyst for
Volvo Group and would like to compare Volvo's research and development expenditures to a U.S. competitor, Navistar International Corporation. Navistar
follows U.S. GAAP that requires that all research and development costs be expensed in the year they are incurred. You gather the following information for Navistar for fiscal year end October 31, 2007 through 2009.

Table 6-B: Financial Information for Navistar 2007-2009

| (in US \$ millions) | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ |
| :--- | :---: | :---: | :---: |
| Total R\&D costs <br> incurred during the <br> year, expensed on the <br> income statement | 375 | 384 | 433 |
| Net sales, <br> manufactured <br> products | 11,910 | 14,399 | 11,300 |
| Total assets | 11,448 | 10,390 | 10,028 |
| Operating income <br> before tax | $(73)$ | 191 | 359 |

i. Use the information from Volvo's eleven-year summary to complete the following table:

Table 6-C: Volvo's Net Sales and Total Assets from 2007 - 2009

| (in SEK millions) | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ |
| :--- | :---: | :---: | :---: |
| Net Sales, industrial operations | 276,795 | 294,932 | 208,487 |
| Total assets, from the balance sheet | $321,647^{*}$ | $372,419^{* *}$ | $332,265^{* *}$ |

[^4]ii. Calculate the proportion of total research and development costs incurred to net sales from operations (called, net sales from manufactured products, for Navistar) for both firms. How does the proportion compare between the two companies?

Volvo: 2007: 10,759/276,795 $=3.89 \%$
2008: $13,364 / 294,932=4.53 \%$
2009: $12,669 / 208,487=6.08 \%$

Navistar: 2007: 375/11,910 $=3.15 \%$
2008: 384/14,399 = 2.67\%
2009: $433 / 11,300=3.83 \%$

The proportion for Volvo is higher than the proportion for Navistar, but not by more than $2.5 \%$. It could be argued that GAAP is a more conservative than IFRS since it produces a result with lower proportions. Furthermore, because Volvo can capitalize part of their R\&D expenses, they would be willing to spend more than Navistar, who cannot capitalize their R\&D expenses.

## CASE 7

# Alteryx - Data Analytics 

January 2018

## Introduction

This case required the research of a specific data and analytics tool, Alteryx. The first part of the case asked for a brief history, purpose and functionality required for Alteryx. Following a brief synopsis of the Alteryx platform, the case details the skills needed to effectively use Alteryx in order to make business decisions. The third part of the case describes three scenarios for each division of accounting and how Alteryx could aid in the solution to business problems. The last part of the case argues for why Alteryx would be a useful addition to an accounting firm.

During this case, I learned about Alteryx, which was a data analytics tool I had never heard of before. It was interesting to see the marketing behind Alteryx and how the founders aimed to make the product applicable to all levels of users. This case was very informative about how the accounting profession is changing and adapting to thrive as technology advances. A challenging part of the case was creating the scenarios for audit, tax and advisory situations. The second part of the case required reflection about the courses taken to get an accounting degree at Ole Miss and the value classes have in the short and long term.

Overall, the case required you to think critically about the data analytics tool. It was not enough to simply define the tool, you had to also see how it could be implemented into the accounting profession. Developing the hypothetical situations for uses of Alteryx allowed for full understanding of the data analytics tool. As technology becomes more prominent in business, accounting professionals are needing to adapt and find ways to use technology to their best advantage.

Part 1 - Identify the history and purpose of this tool and describe, in general, how it is used to make business decisions. Be specific about what kind of technology platform it uses, etc. and other resources that need to be in place to fully utilize the functionality of the tool.

Alteryx was founded in 2010 from three founders with the purpose to develop software products to give organizations further insights about their business. It is a selfservice data analytics program aimed to reduce the amount of time businesses spend sorting, organizing and analyzing data. Their products help simplify the data analysis process and works for all skills levels, from beginners to advanced. Alteryx runs on Microsoft Operating Systems and allows users to input data from a variety of sources, ranging from Excel documents to cloud applications.

Alteryx has a main platform called Alteryx Analytics and has developed four products for consumers. These products include Alteryx Designer, Alteryx Server, Alteryx Connect, and Alteryx Promote.

Alteryx designer is a desktop application that allows users to "prep, blend and analyze" data in a short amount of time. It aids in predictive analysis, spatial analytics and sharing insights. This product can be downloaded on individual computers. The system requirements include at a minimum Microsoft Windows 7, Quad Core i7, 3GHz processor, 8G RAM and at least 1 TB of free disk space. Alteryx Designer has a plethora of in-database support as well as supported databases and file formats.

Alteryx Server is a platform that helps people across a company make more informed, data-backed decisions. It allows for communication among peers and a more centralized process. Alteryx Server can be deployed either on-site, through Amazon Web

Services Marketplace or Microsoft Azure Marketplace. The system requirements include Microsoft Windows Server 2008R2, Quad Core Intel Xeon, 2.5GHz processor, 16 GB RAM and at least 1 TB of free disk space.

Alteryx Connect helps companies find information quickly, make connections within data quickly and improve overall business results. It is an add-on to Alteryx Server and can be assessed under a private cloud or available on-site. It supports most web browsers and requires Microsoft Windows.

Alteryx Promote helps companies deploy their own predictive models quickly. There is no need to recode or fix the models and Alteryx Promote allows users to deploy models from Alteryx Designer. Alteryx Promote requires a minimum of three dedicated machines each having specific specs (Linux CentOS/RHEL7, > 16GB RAM, > 4 cores). This product is supported by most web browsers such as Firefox, Chrome, Safari, and Microsoft Edge.

To fully use the functionality of Alteryx Analytics, it would be beneficial to know how to use other programs and databases that are compatible with Alteryx. For example, knowing how to use excel would be effective for Alteryx Designer. However, if a company invested in Alteryx Server it would be more effective for the user to know how to use Oracle, SQL or SAP.

## Part 2 - What special skills are needed to use this tool to aid in business decision making? How might a student like yourself gain those skills?

Special skills needed include knowing how to use programs that work with Alteryx. For example, knowing how to use Excel. Alteryx is designed to simplify complex data analytics processes without the need to know code.

Users need to know how to use Alteryx itself. Alteryx Designer, Connect and Server seem to be more user-friendly than Alteryx Promote. Alteryx Promote might require some training before use. The most user-friendly product is Alteryx Designer which can be downloaded to a single computer. Alteryx allows users to upload data from a variety of sources, so a general background knowledge of various databases and programs would be beneficial.

A student might learn skills needed to effectively operate Alteryx products by taking classes while in school. For example, in Management Information Systems (MIS 309), the course briefly explains main features of Excel and Access. Furthermore, in Accounting Systems (Accy 310), students are introduced to SAP, Access and Excel. Linear Programming (MATH 269) introduced Tableau and the basics behind it. Outside of classes, a student could learn the skills needed by watching the multiple demo videos Alteryx posted on its website.

Part 3 - How, specifically, would you use the tool in the following business settings? Create at least three specific scenarios for each category in which the tool would lead to more efficiency and/or better effectiveness. Be sure to describe what kinds of data your tool would use for each scenario.

## A. Auditing

## $\underline{\text { Scenario } 1}$

If an audit team was tasked with auditing a client, for example a company like Nike, they would have a lot data. Alteryx allows users to see where the data comes from and to analyze the data quickly. For example, if an audit team member was tasked with finishing the valuation of Nike's recorded sales, they could $\log$ in to Alteryx and find where the data was imported, who imported it, and reopen it to look at the data again. The type of data needed would be records of the sales Nike made within the time period of the audit. Not only would the audit team be able to efficiently check the work on Nike's accountants but they would be able to do so with more confidence since all the data is traceable to its origin. Alteryx even allows everyone on the server to see who uploaded the data originally, so if the audit team had a problem with a specific file, they could see who uploaded it and contact that person directly.

## Scenario 2

A veterinarian recently opened a practice and hired a bookkeeper. Not knowing much about accounting herself, the vet left the books in sole control of the bookkeeper. A few months later, the vet realizes the books fail to add up. She seeks the help of a firm to audit her books and find the mistakes made by the bookkeeper. The firm uses Alteryx to import all of the data the vet has, everything from customer bills to the rent for the building to the expenses of the vaccines purchased. The firm is able to quickly upload all of the data and see the processes behind the numbers in the books. With the help of Alteryx, the firm
can quickly find the errors in the books and help the vet get her finances back in order.

## Scenario 3

The IRS is performing an audit on a company believed to be overstating its assets. As the IRS gathers the paperwork and data from the company, it uploads it to Alteryx. The IRS finds everything from company lunch receipts to bank statements and outdated ledgers. Alteryx helps reduce the amount of time spent on organizing the data and helps the IRS find the correct numbers reporting the company's assets. Since Alteryx allows you to organize a process and trace the data back to each step in the process, the auditors would be able to see clearly where mistakes were made because there would be missing pieces. When performing an audit like this, the company would have to log and store everything collected from a company. Alteryx would help with data storage and further progress the process the auditing team must follow.

## B. Tax Planning

## Scenario 1

A healthcare client asks a firm to help with taxes for the current year and guidance for how to make the most of the new tax policy in place. The firm could use Alteryx to quickly input the hospital's costs and find the appropriate tax reduction qualifications for this year. With the new tax policy soon to be in place, accountants assigned to the case could easily communicate with each with the help of Alteryx and work as a more cohesive team with some of the features Alteryx uses. Instead of wasting time trying to contact team members,
accountants could work virtually anywhere and see who has been entering in data and where they are getting their information from. Alteryx would help the firm better inform their client about the best strategies to use to keep their tax payments low with the new policy in place.

## Scenario 2

Sears seeks the help of an accounting firm to find ways to increase profits during the current fiscal year. The accounting firm can use Alteryx to quickly analyze profits and find ways to minimize tax payments for Sears. By looking at previous years' financial statements and tax payments, the firm can project this year's expected profits unless the company decides to make changes. If Sears decides to make changes, such as closing store locations, the accounting firm could easily make new projections for the future by changing a few variables and running the data analytics programs again. Alteryx would save the firm time and possibly help keep this client in business longer than originally expected because they could produce the results quickly and make last minute adjustments for the clients without having to go back and fix previous work.

## Scenario 3

A client looking to expand internationally is not aware of all of the tax regulations in other countries. The firm is able to efficiently analyze tax requirements by using Alteryx to sift through all of the data they have on the countries the client is wanting to open locations at. Furthermore, the firm can show the client projections of the company's growth based on which locations they select by using the predictive analytics tools in Alteryx. Without Alteryx this task would
most likely require multiple people to work on the task and may take hours of research to find the right data. Alteryx would allow accountants to quickly find the data needed and present multiple scenarios to a client in less time.

## C. Financial Statement Analysis/Valuation/Advisory

## Scenario 1

Advisory could easily apply Alteryx to help assist with clients. For example, if a retail clothing company had a decrease in sales and needed an analysis of the best locations for stores, an accountant with Alteryx could easily find the best solution for their client. Alteryx allows the user to run geo-location data and analyze it without having to use multiple programs. A company could clearly see where their target market would be and then apply that knowledge to increase profits. The type of data needed would be the sales for each store location for a significant amount of time, at least a year.

Scenario 2

PetSmart headquarters is having difficulty finding the correct data needed to fully understand their financial statements from the past quarter. They seek the advisory help from a firm to organize their data and find a more efficient way to communicate information between PetSmart locations. The firm could use Alteryx to input the data for PetSmart and track where the numbers on the financial statements are coming from. Furthermore, the firm could perform an analysis of the current process followed by PetSmart in regards to sharing information and recommend they adapt a more efficient process. For example, with Alteryx information can be shared immediately with members of a company.

## Scenario 3

A popular fast food chain is looking to expand to more locations across America but needs help with creating forecasts and planning the financials for the expansion. The firm chooses to use Alteryx to help perform predictive analytics for the client. As they work their way through the analysis they factor in variables such the current market condition, potential locations for the new restaurants, the current profits at existing restaurants, and expenses related to the expansion. Alteryx allows the firm to input all of the data and blend it to produce the best predictive model for the client. When the client comes to meet with the firm to discuss the models, they honestly tell their accountant they changed their mind and want to factor in other variables as well. Instead of having to schedule another appointment with the client and waste time, the accountant could easily run the new variables through Alteryx and produce a new predictive model while the client is still sitting in the office.

## Part 4 - Write a few paragraphs to your future public accounting partner explaining why your team should invest in the acquisition of and training in this tool. Explain how the tool will impact the staffing and scope of your future engagements.

Alteryx would be a great investment for the firm for many reasons. Alteryx would reduce the amount of time employees spent on analyzing data. This would allow employees to be more productive during the work day and have more time to spend on other tasks. Furthermore, if employees can process and analyze data at a faster pace than
before this may allow for the firm to have the capacity to take on more clients without the need to hire more employees.

By using a self-service data analytics tool such as Alteryx, the firm saves money by not having to hire a third party to perform the data analysis for every single client. The firm would be able to perform data analysis on multiple clients, at any time without having to depend on another party or wait to hear from another company about the results. Also, by being able to work without the help of a third party, the firm can assure clients the data given to them is kept confidential as there would be more control over who had access to the data.

Alteryx could keep staffing needs stagnant. Since employees can spend less time on tedious tasks, they would be able to focus more on advanced issues. Furthermore, since the menial tasks would no longer be assigned to new hires or interns, both would have the opportunity jump start their careers.

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## CASE 8

# Rite Aid Corporation - Long-Term Debt 

February 2018

## Introduction

This case focused on long-term debt and how to account for different types of notes. Rite Aid, provided a balance sheet and a note that listed all of the debt the corporation has and details about how the debt is acquired. The first part of the case asks for a few definitions and explanations of terms found throughout Rite Aid's financial statements. Part B asks for a calculation of total debt based on the numbers found on the balance sheet and the amount of debt due within the next year. Parts C, D, and E all look at notes from note 11 and ask for interest expense, face value, and a few journal entries for each note.

This case helped solidify concepts about notes payable such as calculating the cash interest amount and the journal entries associated with notes. Also, I did not really know what the difference was between secured and unsecured debt, this case helped clarify the differences between the two. The amortization was helpful because it provided a clear view of how the interest rate remains constant throughout the life of the note while the interest expense decreases and the discount on the bond increases. Parts of the case required a calculation of the effective interest rate. This was slightly confusing at first because it was something that I did not remember or learn previously.

Overall, this case combined conceptual elements of notes payable with supporting calculations. To fully understand the correct entries needed and the amounts needed for each account for the entries, knowing only partially the concept or partially the calculations was not enough. Rite Aid provided a balance sheet and note to describe how their debt has been accumulated and the process the corporation follows. By applying previous knowledge learned about notes payable accounts and the information given by

Rite Aid, it was possible to take notes and calculate the interest expenses, issuances and discounts received.

## Concept Based Question - Part A - Consider the various types of debt described in note 11, Indebtedness and Credit Agreement.

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

Rite Aid distinguishes between these two types of debt because secured debt is backed by an asset, whereas unsecured debt is not. This is significant because having a large amount of unsecured debt means that a company is unprotected from the debt. An example of unsecured debt would be student loans or credit card bills. Having secured debt means that a company has an asset used as collateral for it, such as land or equipment. Distinguishing between the two allows for users of the financial statement to see how much of Rite Aid's debt is backed by an asset and how much of the debt is not. This could be a factor when investors or other users are trying to determine how risky a company is.
ii. What does it mean for debt to be "guaranteed"? According to note 11, who has provided the guarantee for some of Rite Aid's unsecured debt?

For debt to be "guaranteed" means that another person or company "co-signed" for the debt along with the debtor. For example, when signing for the purchase of a car or a lease, young adults often have their parents co-sign the document. By co-signing,
the parents are agreeing to take over payments if for some reason their child cannot pay them. This means the parents are guaranteeing that the car or lease company will receive a payment. The same situation applies to companies. When a company signs for a large amount of money, often an insurance company will agree to sign as their guarantor.

Rite Aid has wholly-owned subsidiaries who have guaranteed the debt for Rite Aid. A wholly-owned subsidiary is a company that is fully owned by the parent company. In this case, Rite Aid has subsidiaries that they out right own and the subsidiaries guarantee the debt Rite Aid signs for. It is the reverse of the example previously described. In this case, Rite Aid is the parent company who has their child company agree to sign with them for debt.

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

Senior debt is debt that takes priority over other debts a company has. By having senior debt, a company in the process of liquidation must pay off the senior debt before paying other debts owed.

Fixed-rate refers to the steady rate assigned to a liability. Often fixed rates can be assigned to notes. This means that the note will keep the same interest percentage for the entire lifetime of the note. For example, if a note payable of $\$ 100,000$ is issued with a fixed annual interest rate of $10 \%$, then the debtor will owe $\$ 10,000$ in interest expense every year until the note matures.

Convertible means that the debt can be changed into something else. Often bonds are convertible which means that if a company chooses to do so, they could convert their bonds payable to common stock.
iv. Speculate as to why Rite Aid has many different types of debt with a range of interest rates.

Rite Aid seems to have a variety of debt with ranging interest rates. This could be because it often benefits a company to finance activities through debt rather than to use available assets. Furthermore, Rite Aid seems to lack the amount of cash needed to be able to finance operations without the use of debt. Most of their assets consist of PP\&E and inventory.

## Process based questions - Part B - Consider note 11, Indebtedness and Credit

 Agreement. How much total debt does Rite Aid have at February 27, 2010? How much of this is due within the coming fiscal year? Reconcile the total debt reported in note 11 with what Rite Aid reports on its balance sheet.As of February 27, 2010, Rite Aid has $\$ 6,370,899$ in debt. Of this amount, $\$ 51,502$ is due within the fiscal year. This amount in found under the current liabilities section of the balance sheet in the account titled current maturities of long-term debt and lease financing obligations. In note 11, the total debt can be found at the very bottom of the listing of debts and total debt is listed at $\$ 6,370,899$. This matches what Rite Aid reports on its balance sheet. To calculate debt from the balance sheet requires adding three accounts. First the current maturities of long-term debt and lease financing obligations, which is $\$ 51,502$. Then long-term debt, less current maturities, which is \$6,185,633 and lease financing obligations, less current maturities which is \$133,764.

## Process based questions - Part C - Consider the 7.5\% senior secured notes due March 2017.

i. What is the face value (i.e. the principal) of these notes? How do you know?

The face value of the note is $\$ 500,000$ because the note is not issued at a premium or discount. Furthermore, the principal amount of the note does not change from 2009 to 2010 on the financial statement.
ii. Prepare the journal entry that Rite Aid must have made when these notes were issued.

Entry: Cash 500,000
Note Payable 500,000
This entry increases assets because cash increases, increases liabilities because notes payable increases and has no effect on net income.
iii. Prepare the annual interest expense journal entry. Note that the interest paid on a note during the year equals the face value of the note times the stated rate (i.e., coupon rate) of the note.

Entry: Interest expense 15,000
Interest payable 15,000
This entry has no effect on assets, decreases net income because expenses increase and increases liabilities because interest payable increases.
iv. Prepare the journal entry that Rite Aid will make when these notes mature in 2017.

Entry: Notes payable 500,000
Cash 500,000

This entry decreases liabilities and assets because of the decrease to both cash and notes payable. This entry has no effect on net income.

## Process based questions - Part D - Consider the 9.375\% senior notes due December

## 2015. Assume that interest is paid annually.

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

The principal of these notes is $\$ 410,000$ which is found next to the listing of the notes. The carrying value of the notes is $\$ 405,951$ in 2010 . This amount is found by taking the principal amount of $\$ 410,000$ and subtracting the unamortized discount of the notes for the amount of $\$ 4,049$. These two values differ because the notes were issued at a discount.
ii. How much interest did Rite Aid pay on these notes during the fiscal 2009?

Rite Aid paid \$38,438 in cash for interest during 2009. This was calculated by multiplying the principal by the stated rate by the time or $\$ 410,000$ by $9.375 \%$ by $12 / 12$.
iii. Determine the total amount of interest expense recorded by Rite Aid on these notes for the year ended February 27, 2010. Note that there is a cash and a noncash portion to interest expense on these notes because they were issued at a discount. The noncash portion of interest expense is the amortization of the discount during the year (that is, the amount by which the discount decreased during the year).

The total interest expense recorded by Rite Aid for the year ended February 27, 2010 is $\$ 39,143$. This is calculated by first finding the cash portion of the interest expense by multiplying the principal by the stated rate by the period of time. In this case, multiply $\$ 410,000$ by $9.375 \%$ by $12 / 12$ to get $\$ 38,438$. The $\$ 410,000$ is the principal amount and the percentage is given with the information about the notes. Calculating the yearly interest expense means that all 12 months of interest must be accounted for, so $12 / 12$ is the fraction. If calculating a semi-annual or quarterly interest expense, then 6/12 or $3 / 12$ would be used instead. The next step is to calculate the discount of the note payable. From the financial statement, you can see that the unamortized discount changed from 2009 to 2010 by $\$ 705(\$ 4,754-\$ 4,049)$. The change in the unamortized discount is the noncash portion of the interest expense or the amount the discount has decreased by during the year. To calculate the total interest expense, add the cash and noncash portions together for a total of $\$ 39,143$.
iv. Prepare the journal entry to record interest expense on these notes for fiscal 2009. Consider both the cash and discount (noncash) portions of the interest expense from part iii above.

Entry: Interest expense 39,143
Cash 38,438
Discount on notes payable 705

This entry decreases net income because the interest expense increases, assets decrease because of the decrease in cash and the notes payable account will increase causing liabilities to increase because the discount on the notes payable decreases.
v. Compute the total rate of interest recorded for fiscal 2009 on these notes.

Rite Aid paid a 9.659\% effective rate for the notes in 2009. This rate was calculated by dividing the total interest expense by the beginning of period carrying value. In this case, $\$ 39,143 /(\$ 410,000-\$ 4,754)$, to equal $9.659 \%$.

Process based questions - Part E - Consider the 9.75\% notes due June 2016. Assume that Rite Aid issued these notes on June 30, 2009 and that the company pays interest on June 30th of each year.
i. According to note 11, the proceeds of the notes at the time of issue were $98.2 \%$ of the face value of the notes. Prepare the journal entry that Rite Aid must have made when these notes were issued.

Issuance of notes:
Cash 402,620
Discount on Notes Payable 7,380
Notes Payable 410,000
Cash is calculated by multiplying the face value of $\$ 410,000$ by $98.2 \%$. The face value of the notes is the amount for notes payable and then the discount on notes payable is calculated by subtracting $\$ 402,620$ from $\$ 410,000$ to get $\$ 7,380$.

With this entry, assets increase because cash increases. Notes payable cause liabilities to increase. Net income is not affected.
ii. At what effective annual rate of interest were these notes issued?

The effective annual interest for the notes was $10.1212 \%$. This is calculated by dividing the interest expense by the net book value of debt from the previous year. In this case, it would be $\$ 40,750 / \$ 402,620$ to get the rate of $10.1212 \%$.
iii. Assume that Rite Aid uses the effective interest rate method to account for this debt. Use the table that follows to prepare an amortization schedule for these notes. Use the last column to verify that each year's interest expense reflects the same interest rate even though the expense changes.

To calculate the amounts from the table, first take the net book value of the debt from 2009. Next, calculate the interest payment for June 30, 2010 by multiplying the principal of the note which is $\$ 410,000$ by the stated interest rate of $9.75 \%$ by one year. This results in $\$ 39,975$ in interest payments. The interest payment remains the same for the entire lifetime of the note, so $\$ 39,975$ can be imputed into the interest payment column for every year until the note matures.

The next step is to calculate the interest expense. The interest expense will change every year and should increase from year to year because the bond was issued at a discount. One way to calculate the interest rate is to use Excel's "RATE" function. This requires knowing the number of periods, cash interest payment, cash proceeds at present value, and future value. In this case, there are seven periods because the note's life is seven years. The cash interest payment is $\$ 39,975$ and the present value cash proceeds are $\$ 402,620$. The future value is $\$ 410,000$. When entering the information into Excel, both the cash interest payment and future value need to have negative signs in front of the amounts for the function to work. The formula entered into Excel should be = RATE(7, 39975, 402620, -410000 ). The result is an interest rate of $10.1212 \%$.

Using the rate of $10.1212 \%$, it is possible to calculate the total interest expense. The total interest expense is calculated by multiplying the rate of $10.1212 \%$ by the
beginning of the period carrying value of the note. For 2010, the interest expense would be $10.1212 \%$ multiplied by $\$ 402,620$ resulting in an amount of $\$ 40,750$.

To calculate the bond discount amortization, subtract interest payment from interest expense. For 2010, the bond discount amortization is $\$ 40,750$ minus $\$ 39,975$ or $\$ 775$.

The last step is to check that the rate stays the same throughout the lifetime of the note. To calculate the interest rate, divide interest expense from the current year by the net book value of debt for the previous year. For 2010, this would be $\$ 40,750 / \$ 402,620$ resulting in an interest rate of $10.1212 \%$.

Now that 2010 is filled out, the same steps are followed for the remainder years until the note matures in June of 2016. In June of 2016, the net book value of the debt should be $\$ 410,000$ because the discount of the note should be completely amortized. The bond discount amortization amounts for all of the years should total to $\$ 7,380$.

Table 8-A: Rite Aid Amortization Schedule

| Date | Interest <br> Payment | Interest expense | Bond discount amortization | Net book value of debt | Straight-line interest rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/09 | - | - | - | \$ 402,620 |  |
| 6/30/10 | \$ 39,975 | \$ 40,750 | \$ 775 | \$ 403,395 | 10.1212\% |
| 6/30/11 | 39,975 | 40,828 | 853 | 404,248 | 10.1212\% |
| 6/30/12 | 39,975 | 40,915 | 940 | 405,188 | 10.1212\% |
| 6/30/13 | 39,975 | 41,010 | 1,035 | 406,223 | 10.1212\% |
| 6/30/14 | 39,975 | 41,115 | 1,140 | 407,363 | 10.1212\% |
| 6/30/15 | 39,975 | 41,230 | 1,255 | 408,618 | 10.1212\% |
| 6/30/16 | 39,975 | 41,357 | 1,382 | \$ 410,000 | 10.1212\% |
|  |  |  | \$ 7,380 |  |  |

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

02/27/2010 - Accrued interest expense entry:
Interest expense 26,650
Discount on Notes Payable 517
Interest Payable 26,133
Since the interest payments for the note differ from the end of the fiscal year for Rite Aid, interest expense is calculating differently that the amounts listed in the table. To calculate the interest expense for February 2010, multiply the principal of $\$ 410,000$ by the stated rate of $9.75 \%$ by $8 / 12$ because only eight months have elapsed. The result is an interest expense of $\$ 26,650$. The discount on notes payable is calculated by multiplying $8 / 12$ by the yearly discount for 2010 of $\$ 775$ to get a discount on notes payable of $\$ 517$ for February 2010. The interest payable can be calculated the same way as the discount. By multiplying the yearly amount from the table above $(\$ 39,975)$ by $8 / 12$, resulting in an amount of $\$ 26,133$.

This entry decreases net income because of the interest expense, increases liabilities because of the increase to interest payable and has no effect on assets.

## v. Based on your answer to part iv., what would be the net book value of the notes at

 February 27, 2010?The net book value of the notes is $\$ 403,137$. This is calculated by adding the net book value from 2009 of $\$ 402,620$ and the discount on notes payable from the previous entry of \$517.

## CASE 9

# Merck \& Co. - Shareholders' Equity 

February 2018

## Introduction

This case was about a company called Merck and their stockholders' equity. The first part of the case considered Merck's common shares and asked a few questions about authorized, issued, treasury and outstanding shares. The second part of the case dealt with why a company would pay dividends and the effect paying dividends has on the share price. Part D of the case asked about treasury stocks and why a company might repurchase their own stocks. Following this, the case asked for a journal entry which would summarize all of the common dividend activity for one year. Later, the case required a few calculations related to treasury stock. The last part of the case consisted of calculating dividend ratios for two years for Merck and comparing them.

There were a few things about the case that were challenging. During the first part of the case, market capitalization was calculated. This concept was introduced during a finance class, but actually applying it to a more realistic example was helpful. Also, seeing where the numbers came from (i.e. knowing that the outstanding shares were previously calculated in an earlier step) helped for understanding the concept better. The last part of the case seemed daunting at first, but after working through it, everything began to make sense. The numbers needed were all listed in the first table and finding the right amount required looking through all the financial statements. After filling out the first table, filling out the second table made sense because of all of the numbers needed for the ratios came from the first table.

Overall, this case helped clarify issues with treasury stock and common shares. The design of the case allowed for one part to build from the previous part. By the last part of the case, the overall picture of Merck's stockholders' equity was clear.

## Concept Based Question - Part A - Consider Merck's common shares.

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

Merck is authorized to issue $5,400,000,000$ of common shares, found on the balance sheet under the stockholders' equity section.
ii. How many common shares has Merck actually issued at December 31, 2007?

At December of 2007, Merck has issued 2,983,508,675 common shares. This number was found on the balance sheet under the stockholders' equity section.
iii. Reconcile the number of shares issued at December 31, 2007, to the dollar value of common stock reported on the balance sheet.

Merck reports 29.8 million in common stock. This number can be calculated by multiplying the number of issued shares $(2,983,508,675$ shares) by the par value of the stock ( $\$ 0.01$ ). In this case, the resulting number is $\$ 29,835,086.75$ or rounded to $\$ 29.8$ million.
iv. How many common shares are held in treasury at December 31, 2007?

As of December 31, 2007, there are $811,005,791$ shares in treasury. This number is found on the balance sheet at the bottom of the Liabilities and Stockholders' Equity section where treasury stock is listed.
v. How many common shares are outstanding at December 31, 2007 ?

There are $2,172,502,884$ shares outstanding at year end of 2007. This number is found by subtracting the number of shares held in treasury from the number of shares issued (2,983,508,675-811,005,791).
vi. At December 31, 2007, Merck's stock price closed at $\$ 57.61$ per share. Calculate the total market capitalization of Merck on that day.

Market capitalization is equal to the number of outstanding shares multiplied by the market price per share. For this case, the market capitalization would be 2,172,502,884 shares multiplied by $\$ 57.61$ resulting in $\$ 125,157,891,147.24$.

## Concept Based Question - Part C - Why do companies pay dividends on their common or ordinary shares? What normally happens to a company's share price when dividends are paid?

Companies pay dividends to shareholders as sign of good faith. Investors want to receive a return on their investment and are more likely to invest in companies that pay dividends. By paying dividends, a company is proving that their reported profits are legitimate and that they have the funds available to reward investors.

Normally, when dividends are issued, the stock price or share price will decrease by the same amount as the dividends. This is because in theory, the company is reducing the value of its equity by the amount it is paying to investors in dividends.

Concept Based Question - Part D - In general, why do companies repurchase their own shares?

Companies can purchase their own shares for several reasons. They could be trying to reduce earnings per share and return on equity for the short-run by reducing the number of shares outstanding. Another reason to buy back shares would be to create a market for the stock. If the company is experiencing a lack of demand for their stocks, then purchasing their own stock could create a demand and help establish a base price for the stock. Furthermore, companies can use the stocks bought towards employee compensation plans or during business acquisitions. If a company faces the threat of a takeover, it may start buying shares in an attempt to prevent people outside the company from buying shares.

## Process Based Question - Part E - Consider Merck's statement of cash flow and statement of retained earnings. Prepare a single journal entry that summarizes Merck's common dividend activity for 2007.

Entry: Retained Earnings or Dividends 3,310.7
Dividend Payable 3.4
Cash 3,307.3

In this case, the number of dividends paid to stockholders is $\$ 3,307.3$ million. This number is found on the statement of cash flows under the 'Cash flows from financing activities' section. The number of dividends declared is $\$ 3,310.7$ million and is found in the consolidated statement of retained earnings under the line 'dividends declared on common stock'. The difference between the two accounts of $\$ 3.4$ million is the dividends payable amount.

Process Based Question - Part G - During 2007, Merck repurchased a number of its own common shares on the open market.
i. Describe the method Merck uses to account for its treasury stock transactions.

Merck uses the cost method to account for treasury stock. This is determined by looking at the balance sheet and finding where treasury stock is listed. Where Merck lists treasury stock, they also say that it is at cost, meaning they used the cost method to account for its treasury stock. The cost method is the more commonly used method over the par value method. Under the cost method, Merck debits the treasury stock account for the cost of repurchasing the stocks. A deduction is reported from paid-in-capital and retained earnings on the balance sheet.
ii. Refer to note 11 to Merck's financial statements. How many shares did Merck repurchase on the open market during 2007?

Merck repurchased 26.5 million shares. This number is found in note 11 under the purchases row and 2007 column.
iii. How much did Merck pay, in total and per share, on average, to buy back its stock during 2007? What type of cash flow does this represent?

From the statement of cash flows, Merck spent $\$ 1,429.7$ million on purchases of treasury stock. From note 11, Merck stated they purchased 26.5 million shares. To get the per share amount, divide the amount spent by the number of shares. In this case, it would be $\$ 1,429.7$ million / 26.5 million resulting in an average price of $\$ 53.95$ per share. This is a cash outflow and is classified under cash flows from financing activities. iv. Why doesn't Merck disclose its treasury stock as an asset?

Treasury stock is not considered an asset because an asset is defined as "a probable future economic benefit obtained or controlled by a particular entity as a result of a past transaction or event". Both assets and equity decrease with the purchase of treasury stock. When a company buys back its own stock it is essentially reducing net assets. Treasury stock is accounted for the same way as unissued capital stock and a company would not classify unissued capital stock as an asset.

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

Table 9-A: Merck's Missing Amounts

|  | Merck (\$) |  |
| :--- | ---: | ---: |
| (in millions) | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 6}$ |
| Dividends Paid | $\$ 3,307.30$ | $\$ 3,322.60$ |
| Shares Outstanding | $\$ 2,172.50$ | $\$ 2,167.79$ |
| Net Income | $\$ 3,275.40$ | $\$ 4,433.80$ |
| Total assets | $\$ 48,350.70$ | $\$ 44,569.80$ |
| Operating Cash Flows | $\$ 6,999.20$ | $\$ 6,765.20$ |
| Year-end stock price | $\$ 857.61$ | $\$ 441.94$ |

Table 9-B: Merck's Dividend Ratios

|  | Merck (\$) |  |  |
| :--- | ---: | ---: | ---: |
|  | $\mathbf{2 0 0 7}$ |  | $\mathbf{2 0 0 6}$ |
| Dividends per share | $\$$ | 1.52 | $\$$ |
| Dividend yield (dividends <br> per share to stock price) | $2.64 \%$ |  |  |
| Dividend Payout (dividends <br> to net income) | $100.97 \%$ | $3.65 \%$ |  |
| Dividends to total assets | $6.84 \%$ |  |  |
| Dividends to operating cash <br> flows | $47.94 \%$ |  |  |

Across the two years, Merck's dividend payout ratio increases by almost $30 \%$. This means that they were still willing to pay investors their dividends even though their net income was not as high. The dividends per share stayed relatively the same, only changing by $\$ 0.01$. The dividend yield decreased meaning that the stock price for Merck increased from 2006 to 2007, while the dividends stayed fairly close to the same amount. There was an increase in total assets from 2006 to 2007 which caused the dividend to total asset ratio to decrease. Lastly, the dividends to operating cash flows ratio decreased slightly due to the increase in operating cash flows and the relative stagnation of the amount of dividends paid.

## CASE 10

# Video Summary - Tax Avoidance 

March 2018

This video details issues arising in the accounting field, due to the growth of international business. The video explains how companies are finding ways to loophole traditional tax procedures to keep more of their profits for themselves to give their companies an unfair competitive advantage helping them remain dominant in their relative industries.

The video discusses how many large and popular global companies avoid paying taxes. The first example given is Apple and how they have only paid $1.9 \%$ of corporate tax for profits made in foreign nations. The reason they can do this is because they run a "double Irish with a Dutch sandwich" as the video called it, which basically means they run their revenues through multiple countries and accounts to pay the smallest amount of taxes. The video then talks about offshore wealth and how most of the 21 to 32 trillion dollars of it stems from developed nations. This means that the nations who view themselves as morally superior and have strong, advanced economies are the same nations that have companies taking advantage of loopholes within the international tax circle.

Something from the video that was interesting was how many large companies that are very well-known are the ones responsible for tax avoidance. Companies such as Apple, Amazon, Walmart and Starbucks are global companies that are quite popular. As a generalization, I would say all of them are fairly well-liked and have each managed to change some aspect of business through their innovations. It was surprising that companies who have created and accomplished great things are also partaking in actions that create just as much harm as well. I think these companies are sending a very negative message not only to competitors but to consumers as well. If being successful
means avoiding taxes, other companies will find ways to avoid taxes to just remain competitive with the companies who are already doing it. Furthermore, as it becomes more common, consumers will no longer care that one company avoids taxes because more and more companies will have found ways to avoid taxes too.

The video interviews an accountant who uses the term "pin-stripe mafia" to describe how companies are able practice tax avoidance without breaking the law. This "mafia" consists of accountants, bankers and lawyers who all partake in helping their clients avoid taxes. While it seemed comical at first due to its name, there are serious implications behind it. All three professions consist of people who are supposed follow a code of ethics. The idea that some are taking advantage of their position of authority and hurting the livelihood of others is unsettling. In a way, if you can't trust your account, banker or lawyer, can you really trust anyone?

Furthermore, this video really makes you think about the future of accounting. Accountants are seen as people that are trustworthy and reliable, but how trustworthy and reliable is the profession actually becoming? The kind of consequences that avoiding taxes creates would be something far more drastic than the housing crisis in 2008. The video hints at this with the example of Kenya and how corporations come and leave the country as it suits their tax needs. If not stopped or at least regulated to some extent, the global economy is at risk of crashing.

When I first told someone that I was majoring in accounting, they told me that accounting is not always black and white. This video solidifies how true that statement is. I think what companies are doing with tax avoidance and how professionals are supporting it is considered a grey area of accounting. It's not "technically" illegal but it's
definitely not moral. People say that accountants are held to a high standard, but are they really? As the video states, there is no one there to actually check and make sure that what accountants are doing what is moral. I think as business shifts towards a more internationalized environment, there will have to be more regulations put in place to combat the issue of tax avoidance.

## CASE 11

## State Street Corporation - Marketable Securities

April 2018

## Introduction

This case discusses marketable securities at State Street Corporation. The first part of the case asks for clarification and definitions of trading securities, available-forsale securities and held-to-maturity securities. The second half of the case asks for journal entries relating to the securities. This case helps differentiate which gains or losses are supposed to run through income and which are supposed to run through equity. Also, the case helped enforce how to account for unrealized gains and losses, and realized gains and losses. Furthermore, as comparisons between each type of security were made, the case reinforced the accounting for each type of security. Trading and available-forsale securities are recorded at fair value, whereas held-to-maturity securities are recorded at amortized cost.

Overall, this case helped to review concepts of securities from intermediate and helped clarify how gains/losses should be recorded. Before this case, the differences between each type of security were clear, but I think I was missing a few key aspects for each type of security. Part E of the case, which dealt with held-to-maturity securities was challenging. When first learning the concept in intermediate, the relationship between the market value and carrying value of the security was not something I originally thought about. The case was helpful because it allowed for the calculations required to be traced back to the original financial statements to see where certain numbers came from.

# Concept Based Question - Part A - Consider trading securities. Note that financial institutions such as State Street typically call these securities "Trading account assets." <br> i. In general, what are trading securities? 

Trading securities are short-term securities that can be classified as debt or equity. For most purposes, management intends to keep them until they can sell them in the short-term, usually within three months. The term "trading" refers to the frequent buying and selling of the securities or in this case, assets. The main reason companies use trading securities is to generate a quick profit.

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

The interest received or dividend received from trading securities is reported as revenue. An entry that debits cash, dividend receivable or interest receivable and credits interest or dividend revenue would be an appropriate way to record this transaction.
iii. If the market value of trading securities increased by $\$ 1$ during the reporting period, what journal entry would the company record?

The increase of $\$ 1$ is an increase in fair value of the security. An adjusting entry would be made that debits fair value adjustment and credits unrealized holding gain or loss. The unrealized holding gain/loss is recognized as income.

Journal Entry: Fair Value Adjustment - Trading 1
Unrealized Holding Gain/Loss - Income 1

# Concept Based Question - Part B - Consider securities available-for-sale. Note that State Street calls these, "Investment securities available for sale." 

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

Available-for-sale securities are debt or equity securities that are not classified as held-to-maturity or trading securities. In essence, they are the category for securities that do not align with the other two categories of securities.
ii. How would a company record $\$ 1$ of dividends or interest received from securities available-for-sale?

A company would record interest or dividends received as revenue. They would debit cash and credit interest revenue or dividend revenue.
iii. If the market value of securities available-for-sale increased by \$1 during the reporting period, what journal entry would the company record?

The company would need to record an adjusting entry that debits fair value adjustment and credits unrealized holding gain or loss through equity or other comprehensive income.

Journal Entry:
Fair Value Adjustment - Available-for-sale 1
Unrealized Holding Gain/Loss - Equity (Other Comprehensive Income) 1

# Concept Based Question - Part C - Consider securities held-to-maturity. Note that State Street calls these, "Investment securities held to maturity." <br> i. In general, what are these securities? Why are equity securities never classified as held-to- maturity? 

Held-to-Maturity securities are only classified as debt. They are purchased with the intention of the company keeping the securities until their maturity date. Equity securities cannot be classified as held-to-maturity because they do not have a maturity date.
ii. If the market value of securities held-to-maturity increased by \$1 during the reporting period, what journal entry would the company record?

The company would not record a journal entry because held-to-maturity securities are accounted for at amortized cost, not fair value. This means that the market value does not matter in terms of valuing the security. The reason HTM securities are accounted for at amortized cost is because the company intends to keep the securities until they mature without intentions of selling them.

> Process Based Question - Part D - Consider the "Trading account assets" on State Street's balance sheet.
> i. What is the balance in this account on December 31, 2012? What is the market value of these securities on that date?

The balance in the "Trading account assets" on December 31, 2012 is 637 million. This is the amount at fair value.
ii. Assume that the 2012 unadjusted trial balance for trading account assets was $\$ 552$ million. What adjusting journal entry would State Street make to adjust this account to market value? Ignore any income tax effects for this part.

State Street would need to make the following entry: (in millions)
Fair Value Adjustment - Trading 85
Unrealized Holding Gain/Loss - Income 85
The 85 million is calculated by subtracting the fair value from the unadjusted value (637 - 552).

## Process Based Question - Part E - Consider the balance sheet account "Investment securities held to maturity" and the related disclosures in Note 4.

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

The year-end balance of this account is 11,379 million. This amount is found on the Consolidated Statement of Condition in the assets section.
ii. What is the market value of State Street's investment securities held to maturity?

The market value (or fair value) of the HTM securities is 11,661 million. This amount is found in the parenthesis next to "Investment securities held to maturity".
iii. What is the amortized cost of these securities? What does "amortized cost" represent? How does amortized cost compare to the original cost of the securities?

The amortized cost of the securities is 11,379 million. Amortized cost is the acquisition cost adjusted for amortization. In other words, it represents the change in value of the security after the discount and/or premium has been factored in.
$i v$. What does the difference between the market value and the amortized cost represent? What does the difference suggest about how the average market rate of interest on held-to-maturity securities has changed since the purchase of the securities held by State Street?

The difference between the market value and the amortized cost represents the change in the interest rate from the stated rate of the security as it is amortized compared to the current market rate. The difference suggests that the average market rate of interest is increasing as the HTM securities matures.

## Process Based Question - Part F - Consider the balance sheet account "Investment securities available for sale" and the related disclosures in Note 4.

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

The 2012 year-end balance is 109,682 million. This balance represents the market value of the AFS securities at the end of 2012.
ii. What is the amount of net unrealized gains or losses on the available-for-sale securities held by State Street at December 31, 2012? Be sure to note whether the amount is a net gain or loss.

The net unrealized gains on the AFS securities is 1,119 million. This number is calculated by taking the unrealized gain and unrealized loss (found on note 4) and subtracting the loss from the gain. In other words, taking the gain of 2,001 million minus the loss of 882 million resulting in an unrealized net gain of 1,119 million.
iii. What was the amount of net realized gains (losses) from sales of available-for-sale securities for 2012? How would this amount impact State Street's statements of income and cash flows for 2012?

The net realized gains from AFS securities for 2012 are 55 million. This number is calculated by looking at the table that "presents realized gains and losses related to investment securities for the years ended December 31:". The table lists "gross realized gains from sales of available-for-sale securities" of 101 million and the "gross realized losses from sales of available-for-sale securities" of 46 million. By subtracting the loss from the gain, the result is 55 million for the net realized gains.

This amount impacts State Street's statements of income for 2012 by increasing total revenue. The gain would be classified as a "gain related to investment securities". The increase in revenue would cause net income to increase as well. The amount impacts the statements of cash flows by increasing the investments section.

## Process Based Question - Part G - State Street's statement of cash flow for 2012 (not included) shows the following line items in the "Investing Activities" section relating to available-for-sale securities (in millions): <br> Proceeds from sales of available-for-sale securities \$ 5,399

## Purchases of available-for-sale securities $\mathbf{\$ 6 0 , 8 1 2}$

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

Entry: (in millions)
Investment in Available-for-sale securities 60,812 Cash 60,812
ii. Show the journal entry State Street made to record the sale of available-for-sale securities for 2012. Note 13 (not included) reports that the available-for-sale securities sold during 2012 had "unrealized pre-tax gains of $\$ 67$ million as of December 31, 2011." Hint: be sure to remove the current book-value of these securities in your entry.

Entry: (in millions)
Cash 5,399
Unrealized Holding Gain 67
Investment in AFS 5,411
Realized gain on AFS 55
The cash amount and unrealized holding gain are given. The realized gain on AFS is found on the consolidated statement of income, with the line titled "net gains from sales of investment securities". This value is 55 . The investment in AFS is a plug amount, found by adding cash and unrealized holding gain together and then subtracting the gain from that amount. $(5,399+67-55=5,411)$.
iii. Use the information in part $g$. ii to determine the original cost of the available-forsale securities sold during 2012.

The cash process from part g. ii were 5,399 and the gain on AFS was 55.
Proceeds minus the book value will equal the gain, so $5,399-$ book value $=55$. In this case, the book value or original cost of the AFS securities was 5,344. (note - all numbers are in millions).

## CASE 12

## ZAGG Inc. - Deferred Income Taxes

April 2018

## Introduction

This case focuses on deferred income taxes and the accounting for them for Zagg Inc. To start, the case asks about the difference between book income and taxable income. Part B of the case asks for definitions of terms relating to the case such as permanent and temporary tax differences. Part C deals with ASC 740 and how to account for income tax expense and why deferred tax assets/liabilities are excluded from the amount reported in the income tax expense account. The fourth part of the case compares deferred tax liabilities and deferred tax assets. Deferred income tax valuation accounts are the part of the concept based questions and ask about when they should be recorded. The last part of the case, Part F, asks for journal entries and explanations of what numbers on the financial statements mean.

Overall, the case helped review taxable income and important differences between pre-tax financial income and taxable income. Part D helped clarify differences between the deferred tax liabilities and assets. Before this case, the concept of a valuation account was not something I understood completely. Part E provided the opportunity to learn more about the valuation account and its overall purpose for deferred tax assets. The process based question of the case is four parts and finding the amounts for the journal entries and amounts needed to answer the various parts of the question were relatively simple after answering all of the concept based questions.

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

Book income is the income that is classified the pre-tax financial income. In other words, book income is the income amount found on the income statement. The book income is found on the consolidated statements of operations on the line titled "income before provision for income taxes". In this case, that amount is 23,898 (in thousands) for 2012.

A company's book income and taxable income differ. A book income allows for a company to calculate tax expense and is used for GAAP purposes. The taxable income is used for the IRS and allows the company to determine the income tax payable.

## Concept based question - Part B - In your own words, define the following terms:

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

Permanent tax differences are differences that exist between the taxable income and book income. They are differences that will always exist. Usually, permanent differences arise from fines or penalties a company acquires. The fines or penalties would not be taxable and therefore, book income would be different from taxable income.

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

Temporary tax differences are differences between taxable income and book income that will only remain in place for a short period of time. The differences will
most likely reverse within the next accounting period, as timing differences are usually what causes temporary differences to occur. An example would be revenue recognition. A company could have collected unearned revenue in one accounting period that is intended to be earned as revenue in another. In this instance, book income would be more than taxable income because the company cannot tax the unearned revenue. However, in the next accounting period, the company will be able to tax the unearned revenue and the temporary difference will reverse.

## iii. Statutory Tax Rate

The statutory tax rate is the stated tax rate required by law for companies to pay in taxes.

## iv. Effective tax rate

The effective tax rate is the tax rate that companies actually pay in taxes after factoring in tax deductions. The effective tax rate is calculated by dividing tax expense by pretax income.

## Concept based question - Part C - Explain in general terms why a company reports deferred income taxes as part of their total income tax expense. Why don't companies simply report their current tax bill as their income tax expense? <br> When a company is deferring payment for part of their taxes, they create a deferred tax liability account. This account, classified as a liability will consist of the tax amount that the company is choosing to pay during a later accounting period.

An example of when a company would defer paying taxes on something would be with an accounts receivable account. If a company has accounts receivable but payments for the accounts are not due within the tax reporting period, a difference would exist between the taxable income and book income. The income tax expense is the account that relates to the book income. So, when the income tax expense exceeds the income tax payable, a deferred tax liability exists. The income tax payable account relates to taxable income. In this case, the accounts receivable amount is reported under the book income in accordance to GAAP. However, the amount of accounts receivable account is not reported as taxable income because in accordance with tax standards, the company has not actually collected anything to tax. The deferred tax liability is the amount that the company will pay in the future.

ASC 740 outlines how companies should report and account for taxes. And GAAP states that companies must recognize expenses as they incur. Based on the GAAP reporting of book income, the company incurs the tax expense of the accounts receivable account during that accounting period. However, the company cannot tax accounts receivable according to tax standards. There is a difference between what is reported as taxable income and pre-tax financial income which is why companies create deferred tax accounts. The difference between the taxable income and pre-tax financial income is a temporary difference that will reverse itself over time. The deferred tax liability serves to help account and clarify the amount future taxes a company will pay.

Companies do not report their current tax bill as their income expense because doing so fails to fully account for the entire expense. If a company reported their current tax bill as their income expense they would not be disclosing the full amount of the
expense incurred which violates GAAP. By reporting deferred income taxes as part of the income tax expense, a company is following the correct guidelines.

For example, if a company had a temporary difference between taxable income and pre-tax financial income resulting in $\$ 10,000$ of pre-tax income and $\$ 5,000$ of taxable income, then the company could not simply debit income tax expense and income tax payable for the same amount. In this example, the company's income tax expense and income tax payable will be different amounts. Therefore, to correctly account for the difference, the company credits a deferred tax liability account. In this case, the company would credit the deferred tax liability for $\$ 5,000$. The $\$ 5,000$ of deferred tax liability represents the amount that the company is obligated to pay in the future once the $\$ 5,000$ is taxable. The reason the $\$ 5,000$ is part of the income tax expense is because the $\$ 5,000$ is reported for financial statement purposes as part of the pre-tax financial income. The company has already recognized the in revenues associated with the expense and must therefore also recognize the $\$ 5,000$ in expenses relating to the revenue.

To conclude, when a company reports its income tax expense, this amount consists of the amount of taxes payable for the current year as well as any deferred tax liabilities. By reporting the deferred tax liabilities or deferred tax assets with income tax expense, it allows the company to recognize temporary differences and carryforwards. The deferred income taxes serve as an account that allows companies to comply with both tax and GAAP rules.

## Concept based question - Part D - Explain what deferred income tax assets and deferred income tax liabilities represent. Give an example of a situation that would give rise to each of these items on the balance sheet.

Deferred income tax liabilities are future taxable amounts for a company. The deferred income tax liabilities are representing the amount of taxes a company will owe in the future due to current temporary differences between taxable income and book income. For example, if a company collects unearned revenue for an accounting period outside of the current tax period, it cannot tax the unearned revenue. However, the company has collected money and will recognize the tax for it once it recognizes the revenue for the money collected. The future tax owed for this portion of the unearned revenue is referred to as the deferred income tax liability.

Deferred income tax assets are future deductible amounts for a company. This means that the amount of the asset is something the company can later subtract from their taxes in future years. Deferred income tax assets are similar to when you return an item at a store and they give you a store credit for the monetary amount of the item. You keep the store credit until your next purchase at the store and then once you are ready to make a purchase, you turn in the store credit and the cashier deducts that amount from the amount you own the store. Deferred tax assets work the same way. The company keeps the asset until they are paying taxes for the following year, they then give the IRS the "store credit" or in this case, the deferred tax asset. The IRS deducts this amount from the overall amount of taxes a company owes.

An example of a deferred tax asset arising would be due to differences in the income statement and tax report due to a company's warranty expense. If a company
estimates a warranty expense, the amount of the estimate is deducted from revenue on the income statement. However, since the actual expense did not occur, the IRS does not factor in the estimated warranty expense. In this case, the taxable income is greater than the book income and the company ends up paying more taxes than it should have. The excess paid becomes a deferred tax asset.

## Concept based question - Part E-Explain what a deferred income tax valuation

 allowance is and when it should be recorded.A deferred income tax valuation allowance is how companies reduce a deferred tax asset if it is "more than likely not" that the company will not realize a portion of the deferred tax asset. In other words, if a company knows that it is $50 \%$ or more likely they will not use part of their deferred tax asset, then they will use a valuation allowance to account for the adjustment that needs to be made. The valuation allowance is what allows the deferred tax asset to be presented on the balance sheet at its net realizable value.

For example, if a company has a deferred tax asset of $\$ 500,000$ and it is more than likely not that they will not realize $\$ 50,000$ of it then they would make the following entry:

Income tax expense 50,000
Allowance to reduce deferred tax asset to expected realizable value 50,000
This entry allows the company to report the deferred tax asset at the proper amount on the balance sheet, at $\$ 450,000$.

Process based question - Part F - Consider the information disclosed in Note 8 Income Taxes to answer the following questions:
i. Using information in the first table in Note 8, show the journal entry that ZAGG recorded for the income tax provision in fiscal 2012?

Journal Entry (in thousands):
Income tax expense 9,393
Deferred tax asset, net of deferred tax liability 8,293
Income tax payable 17,686
The amounts are found on note 8. Income tax expense is found on the first table which lists the current provisions. Zagg calls their income tax expense "total provision" and it amounts to 9,393 . The deferred tax asset is found by taking the net amount of the deferred tax asset and liability. The last table in note 8 , titled Deferred tax liabilities, lists the net deferred tax assets and the amount for 2012 is 13,508 . The 13,508 includes the previous years' amount as well. Since the journal entry needs the amount the deferred tax asset increased during the year, you need to subtract the amount of deferred tax assets from 2011. The result is an increase to deferred tax assets for 8,293 . The last part on the entry, the income tax payable is found by on the first table of note 8 . There is a line called "total current" which refers to the income tax payable and has an amount of 17,686.
ii. Using the information in the third table in Note 8, decompose the amount of "net deferred income taxes" recorded in income tax journal entry in part f. i. into its deferred income tax asset and deferred income tax liability components.

Journal entry (in thousands):
Income tax expense 9,393
Deferred tax asset, net of valuation account 8,002
Deferred tax liability 291
Income tax payable 17,686
To separate the deferred tax asset and deferred tax liability, you first have to fine the total gross deferred tax liabilities amounts for 2011 and 2012. After finding those values, subtract 1,086 from 794 to get the change in the deferred tax liability from 2011 to 2012. The result is a deferred tax liability of 291.
iii. The second table in Note 8 provides a reconciliation of income taxes computed using the federal statutory rate (35\%) to income taxes computed using ZAGG's effective tax rate. Calculate ZAGG's 2012 effective tax rate using the information provided in their income statement. What accounts for the difference between the statutory rate and ZAGG's effective tax rate?

The effective tax rate is calculated by dividing the tax expense by the pretax income. In this case, it would be 9,393/23,898 resulting in an effective rate of $39.3 \%$. The difference between the two rates is due to liabilities and deductions that may not be factored into the statutory rate.
iv. According to the third table in Note 8 - Income Taxes, ZAGG had a net deferred income tax asset balance of \$13,508,000 at December 31, 2012. Explain where this amount appears on $Z A G G$ 's balance sheet.

This amount appears on the balance sheet under current assets, specifically the deferred income tax assets of 6,912,000 and the deferred income tax assets that are classified as an asset in the amount of 6,596,000 resulting in a total of 13,508,000.

## CASE 13

# Apple Inc. - Revenue Recognition 

May 2018

## Introduction

This case is about Apple, Inc. and revenue recognition. The first part of the case deals with the recognition of revenue and the difference between revenues and gains. The next part (part B) asks about what it actually means to "recognize" revenues. When recognizing revenues, it's important to realize which accounts are affected and how that impacts the financial statements. ASC 606 is briefly explained to outline revenue recognition criteria. The case asks about note 1 , which is where Apple, Inc. states how they report and recognize revenue based on four criteria.

As the case progresses, the concept of multiple-element contracts comes into question and how that can be potentially difficult for revenue recognition for companies. The last concept question asks about incentives managers may have when reporting revenue. Since Apple Inc. bundles hardware and software together when selling products to customers, this question was interesting to answer.

The process based question asks about when Apple, Inc. reports specific items, such as iTunes songs, as revenue. This questions makes you think about how to correctly report revenues in alignment with ASC 606. Also, it requires some thought to how Apple Inc. records revenues.

Overall, this case mainly focused on concept questions. It was helpful to review revenue recognition and learn more about ASC 606. I think Apple Inc. was a great company to use for this case since their recognition of revenue is not straight-forward.

# Concept based question - Part A - In your own words, define "revenues." Explain how revenues are different from "gains." 

Revenues consist of income derived from normal business practices. For example, if a retail company is selling clothes and shoes, sales of those items are considered revenue. However, if the retail company has reevaluated its investments and determines that they have gained money from them, then this increase in money is not considered revenue because it is something that is independent of normal business operations. The company would classify this income as a gain because it is an inconsistent, non-recurring form of income.

## Concept based question - Part B - 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. (Use ASC 606 to answer this question)For a business to recognize revenues means that they can credit the revenue account in journal entries. Revenue recognition is how businesses acknowledge the money they have earned from their business endeavors. Sometimes, a customer will pay for services upfront, before the service takes place. In these instances, the company would still collect the cash or payment but instead of crediting revenues, they would credit unearned revenue because the revenue has not been earned yet. In these instances, once the revenue has been earned, the company would debit unearned revenue and credit
revenues. This entry would increase net income because revenues are increasing, causing the income statement to be affected by the entry.

In this case, Apple Inc. refers to unearned revenue as "deferred revenue". They classify deferred revenue as a current liability on the balance sheet. As they perform services or deliver goods, the deferred revenue account will decrease, causing the current liabilities on the balance sheet to decrease as well.

ASC 606 takes effect for companies after December 15, 2017. ASC 606 was passed to allow for more consistent revenue recognition and financial reporting. According to ASC 606, there is a five step process for revenue recognition. The steps are: 1) identify the contract with a customer, 2) Identify the performance obligations in the contract, 3) determine the transaction price, 4) allocate the transaction price to the performance obligation in the contract, and 5) recognize revenue when the entity or firm satisfies the performance obligation.

## Concept based question - Part C - 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 $\mathbf{b}$, above? (use apple's most recent $10-\mathrm{k}$, see references on page 9)

Apple generally recognizes revenue once the product or item is shipped.
According to Note 1, Apple recognizes revenue when four specific criteria exist. The note states that revenue is recognized when "persuasive evidence of an arrangement exists, delivery has occurred, the sales prices is fixed or determinable, and collection is
probable". After checking Apple's most recent 10K, the same statement is found about revenue recognition.

The four criteria outlined by Apple Inc. seem to align well with the ASC 606. The criteria established by Apple requires the recognition of the contract with a customer and the identification of the performance obligations, when they say "an arrangement exists" and "delivery has occurred". Apple Inc. sets a transaction price in their criteria when they state that "the sales prices is fixed or determinable".

## Concept based question - Part D - What are multiple-element contracts and why do they pose revenue recognition problems for companies?

Multiple-element contracts are when a firm provides more than one product or service to their customer. An example relating to Apple Inc. would be purchasing an iPhone. The iPhone is the hardware and the applications and the Operating System (OS) on the phone are the software. When a customer buys an iPhone, they purchase both things. The difficulty comes from valuing the software in monetary terms. How a company valuates intangibles seems to be vague. In Apple's most recent 10K, they state that they recognize revenue for the software and hardware based on the selling price. Depending on the classification of the software, based on an established hierarchy created by Apple, they determine the amount of revenue to be allocated towards deliverables. They have three methods: vendor-specific objective evidence of fair value, third-party evidence of selling price and best estimate of selling price.

## Concept based question - Part E-In general, what incentives do managers have to make self-serving revenue recognition choices?

If managers are evaluated on how much revenue they make, then they have a large incentive to recognize revenues before they are actually earned, specifically during quarter-ends and year-ends. Furthermore, since Apple Inc. bundles the price of the hardware and software together when sales are made, managers can incorrectly allocate revenues from sales to influence their sales in specific categories. For example, if Apple Inc. decides to award the manager who makes the most sales in a specific type of software, that could lead to managers allocating improper amounts of revenue towards software. The software revenues would be overstated while the hardware revenues would be understated. This would lead to an incorrect of revenue.

## Process based question - Part F - Refer to Apple's revenue recognition footnote. In particular, when does the company recognize revenue for the following types of sales? <br> i. iTunes songs sold online.

In note 1, Apple states that it recognizes sales on iTunes "in accordance with general revenue recognition accounting guidance". Since Apple is not the primary obligor to the customers who buy the songs, the prices of the products are determined by the third-party developers. Apple recognizes the commission made on the sales.

With this sale, Apple is the third-party, selling another firms products to customers. Apple records the revenue correctly. They have a contract with the customer and once the obligation is filled, they recognize the revenue. With this example, the
customer is the person who is buying something from iTunes and the obligation is the accessibility the customer has to the song or product they purchase.
ii. Mac-branded accessories such as headphones, power adaptors, and backpacks sold in the Apple stores. What if the accessories are sold online?

Apple recognizes revenue for accessories sold in stores at the point of sale, or when the customer purchases the product. If the accessories are sold online, Apple defers the revenue until the customer receives the product.

With the in store purchases, Apple correctly records the revenue because at the point of sale, Apple fulfills its obligations to the customer and the payment taken is most likely collectible. With online purchases, it makes sense for Apple to defer recognition of revenue until the customer receives the items because that it when Apple fulfills its obligation to the customer.
iii. iPods sold to a third-party reseller in India.

Apple recognizes revenue for this based on the gross amount billed to the thirdparty seller. Determining how Apple would recognize this revenue was difficult to determine based on the notes. It is unclear whether or not this follows correct revenue recognition. If Apple bases this recognition similar to how they account for their sales of third-party songs, then Apple would recognize revenue once they sell their products to the reseller.

In this case, the contract would be with the reseller to provide the iPods. Once the reseller has received the iPods, Apple recognizes the revenue because they have filled their performance obligation of supplying the hardware.
iv. Revenue from gift cards.

Apple records revenue from gift cards as "deferred revenue" until the customer redeems the card's monetary amount. This accounting for gift cards makes sense because it allows for Apple to recognize the performance obligation once the customer chooses to redeem the credits on the gift card. A gift card is similar to customers prepaying for services or products. Apple would consider the prepayment for a product or service as a deferred revenue. They should do the same for gift cards.

## Appendix 13-1

## Apple's most recent 10 K retrieved from:

SEC Filings - Apple 10K. (n.d.). Retrieved January, 2018, from http://investor.apple.com/secfiling.cfm?filingid=320193-17-70\&cik=320193\#A10-
K20179302017_HTM_S34B3D5B551F1550394B91182557C3C2D.

Figure 13-A: Apple's Revenue Recognition Accounting Policy

## Revenue Recognition

Net sales consist primarily of revenue from the sale of hardware, software, digital content and applications, accessories, and service and support contracts. The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable and collection is probable. Product is considered delivered to the customer once it has been shipped and title, risk of loss and rewards of ownership have been transferred. For mos of the Company's product sales, these criteria are met at the time the product is shipped. For online sales to individuals, for some sales to education customers in the U.S., and for certain other sales, the Company defers revenue until the customer receives the product because the Company retains a portion of the risk of loss on these sales during transit. For payment terms in excess of the Company's standard payment terms, revenue is recognized as payments become due unless the Company has positive evidence that the sales price is fixed or determinable, such as a successful history of collection, without concession, on comparable arrangements. The Company recognizes revenue from the sale of hardware products, software bundled with hardware that is essential to the functionality of the hardware and third-party digital content sold on the iTunes Store in accordance with general revenue recognition accounting guidance. The Company recognizes revenue in accordance with industry-specific software accounting guidance for the following types of sales transactions: (i) standalone sales of software products, (ii) sales of software upgrades and (iii) sales of software bundled with hardware not essential to the functionality of the hardware.

For multi-element arrangements that include hardware products containing software essential to the hardware product's functionality, undelivered software elements that relate to the hardware product's essential software and/or undelivered non-software services, the Company allocates revenue to all deliverables based on their relative selling prices. In such circumstances, the Company uses a hierarchy to determine the selling price to be used for allocating revenue to deliverables: (i) vendor-specific objective evidence of fair value ("VSOE"), (ii) third-party evidence of selling price ("TPE") and (iii) best estimate of selling price ("ESP"). VSOE generally exists only when the Company sells the deliverable separately and is the price actually charged by the Company for that deliverable. ESPs reflect the Company's best estimates of what the selling prices of elements would be if they were sold regularly on a stand-alone basis.

For sales of qualifying versions of iOS devices, Mac, Apple Watch and Apple TV, the Company has indicated it may from time to time provide future unspecified software upgrades to the device's essential software and/or non-software services free of charge. Because the Company has neither VSOE nor TPE for the unspecified software upgrade rights or the non-software services, revenue is allocated to these rights and services based on the Company's ESPs. Revenue allocated to the unspecified software upgrade rights and non-software services based on the Company's ESPs is deferred and recognized on a straight-line basis over the estimated period the software upgrades and non-software services are expected to be provided.

The Company's process for determining ESPs involves management's judgment and considers multiple factors that may vary over time depending upon the unique facts and circumstances related to each deliverable. Should future facts and circumstances change, the Company's ESPs and the future rate of related amortization for unspecified software upgrades and non-software services related to future sales of these devices could change. Factors subject to change include the unspecified software upgrade rights and non-software services offered, the estimated value of unspecified software upgrade rights and non-software services and the estimated period unspecified software upgrades and non-software services are expected to be provided.


[^0]:    *After Part A of the case, the trial balance shows that debits equal credits. The work showing how the account totals were calculated is included in a table on Appendix I and II.

[^1]:    *This trial balance verifies that the debits and credits equal each other. The calculations from the transactions can be seen in Appendix I.

[^2]:    *This trial balance verifies that the debits and credits equal each other. The calculations from the transactions can be seen in Appendix II.

[^3]:    See notes to consolidated financial statements.

[^4]:    *Given
    **Found on consolidated balance sheets

