**Financial Statement Analysis**

**Learning Problems**

**Online Discussion**

**Problem: Financial Statement Analysis at ABC**

|  |  |  |
| --- | --- | --- |
| **ABC Company**  **Income Statement**  **For the Year Ending December 31 (CAD thousands)** | | |
|  | **2011** | **2010** |
| Sales | 450,000 | 380,000 |
| Cost of sales | 235,000 | 205,000 |
| Gross profit | 215,000 | 175,000 |
| Operating expenses |  |  |
| Management salaries | 105,000 | 85,000 |
| Rent | 25,000 | 23,000 |
| Depreciation | 10,000 | 8,000 |
| Telephone | 1,500 | 700 |
| Repairs and maintenance | 6,000 | 5,000 |
| Wages and benefits | 26,000 | 20,000 |
| Miscellaneous | 2,000 | 1,500 |
| Total operating expenses | 175,500 | 143,200 |
| Income before interest and taxes | 39,500 | 31,800 |
| Interest expense | 25,000 | 20,000 |
| Income taxes | 3,000 | 2,500 |
| Net income | 11,500 | 9,300 |

|  |  |  |  |
| --- | --- | --- | --- |
| **ABC Company**  **Balance Sheet**  **As of December 31 (CAD thousands)** | | | |
|  | **2011** | **2010** |
| Current assets |  |  |
| Cash and cash equivalents | 18,000 | 25,000 |
| Short-term investments | 35,000 | 30,000 |
| Accounts receivable | 7,000 | 4,000 |
| Inventory | 90,000 | 80,000 |
| Prepaid expenses | 2,000 | 1,500 |
| Total current assets | 152,000 | 140,500 |
| Fixed assets |  |  |
| Land | 50,000 | 50,000 |
| Building | 200,000 | 200,000 |
| Equipment | 175,000 | 125,000 |
| Sub-total | 425,000 | 375,000 |
| Less: accumulative depreciation | (102,000) | (92,000) |
| Total fixed assets | 323,000 | 283,000 |
| Total assets | 475,000 | 423,500 |
| Current liabilities |  |  |
| Accounts payable | 60,000 | 50,000 |
| Operating line of credit | 15,000 | 10,000 |
| Current portion of long-term debt | 10,000 | 10,000 |
| Total current liabilities | 85,000 | 70,000 |
| Long-term liabilities |  |  |
| Bond payable | 190,000 | 165,000 |
| Shareholders’ equity |  |  |
| Preferred shares | 5,000 | 5,000 |
| Common shares | 15,000 | 10,000 |
| Retained earnings | 180,000 | 173,500 |
| Total shareholders’ equity | 200,000 | 188,500 |
| Total liabilities and shareholders’ equity | 475,000 | 423,500 |

**Other information**

Approximately 15.0% of ABC’s sales are on credit at terms net 30. All inventory purchases are on credit at terms net 60.

The market value of ABC’s common share is CAD 22.00 and it has 10,000 common shares and 5,000 preferred shares outstanding. The preferred shares pay a CAD 0.10 annual dividend. The common share dividend in 2011 was CAD 0.45. The tax rate is 21.0%.

**Required:**

1. Calculate the following ratios:

Current ratio

Quick ratio

Cash ratio

Net working capital

Net working capital to total assets ratio

Inventory turnover

Inventory turnover in days

Accounts receivable turnover

Accounts receivable turnover in days

Operating cycle

Accounts payable turnover

Accounts payable turnover in days

Net operating cycle

Net working capital turnover

Fixed asset turnover

Total asset turnover

Times interest earned

Fixed-charge coverage ratio

Debt ratio

Debt-to-equity ratio

Long-term debt to total capitalization ratio

Gross profit margin

Operating profit margin

Net profit margin

Operating return on assets

Return on assets

Return on equity

Basic earnings per common share

Dividend payout ratio

Retention ratio

Dividend yield

Earnings yield

Price-to-earnings ratio

Book value per common share

Price-to-book value ratio

**Problem: Appropriate Current Ratio**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Anston Ltd.** | **Rempel Co.** | **Daschle Inc.** |
| Inventory turnover in days | 30 | 90 | 30 |
| Accounts receivable turnover in days | 10 | 30 | 0 |
| Accounts payable turnover in days | 30 | 60 | 90 |
| Sales (CAD thousand) | 5,000 | 8,000 | 10,000 |
| Cost of sales (CAD thousand) | 3,000 | 4,000 | 5,000 |
| Desired cash balance (CAD thousand) | 100 | 150 | 200 |

**REQUIRED:**

1. How long are the net operating cycles for Anston, Rempel, and Daschle?

1. Calculate the appropriate current ratio for each company.

3. What do the results in Part 2 indicate?

**Problem: Window Dressing**

At year-end, Delta Company had current assets of CAD 550,000 and current liabilities of CAD 390,000. The company was not meeting its current ratio requirement of 1.5, but the CFO was not worried. She decided to factor CAD 100,000 in 30-day accounts receivable at a discount rate of 5.0% which is the factor’s fee.

**REQUIRED:**

1. What effect will this have on the current ratio?

**Problem: Year-End versus Monthly Averages**

Smith Company is a toy manufacturer. Most of its production is sold to consumers in November and December, but it produces units throughout the year to minimize the investment in plant and equipment and prevent seasonal layoffs. This strategy requires extensive inventory storage facilities. Smith Company’s accounting period is May 1 through April 30. Sales last year were CAD 4,000,000 and the costs of sales were CAD 1,800,000. Inventory and accounts receivable data for the last 12 months were as follows:

|  |  |  |
| --- | --- | --- |
| **Month** | **Accounts Receivable**  **(CAD)** | **Inventories**  **(CAD)** |
| May | 60,000 | 525,000 |
| June | 40,000 | 650,000 |
| July | 50,000 | 775,000 |
| August | 60,000 | 900,000 |
| September | 200,000 | 975,000 |
| October | 800,000 | 700,000 |
| November | 1,500,000 | 400,000 |
| December | 1,800,000 | 25,000 |
| January | 1,000,000 | 100,000 |
| February | 600,000 | 150,000 |
| March | 200,000 | 275,000 |
| April | 50,000 | 400,000 |
| Average | 530,000 | 489,583 |

**REQUIRED:**

1. Calculate the inventory and accounts receivable turnover in days using year-end and average monthly data.
2. Which method is more accurate? Explain.

**Problem: Segmented Reporting at Radisson Electric**

Radisson Electric Ltd. makes components for the automotive and environmental control industries. The following information was collected from their annual reports:

|  |  |  |  |
| --- | --- | --- | --- |
| **(CAD thousands)** | **2017** | **2016** | **2015** |
| Operating Segments |  |  |  |
| Net Sales |  |  |  |
| Automotive Group | 13,620.50 | 12,738.50 | 12,075.10 |
| Control Group | 4,806.70 | 4,601.30 | 4,064.30 |
| Total | 18,427.20 | 17,339.80 | 16,139.40 |
| Operating Income |  |  |  |
| Automotive Group | 720.50 | 701.33 | 682.40 |
| Control Group | 240.60 | 199.80 | 172.50 |
| Total | 961.10 | 901.13 | 854.90 |
| Assets |  |  |  |
| Automotive Group | 8,230.38 | 7,309.90 | 6,430.50 |
| Control Group | 1,749.56 | 1,699.43 | 1,610.20 |
| Unallocated | 602.40 | 497.10 | 573.50 |
| Total | 10,582.34 | 9,506.43 | 8,614.20 |
| Geographical Sales |  |  |  |
| Net Sales |  |  |  |
| North America | 11,584.10 | 11,325.10 | 10,465.40 |
| Europe | 4,711.60 | 4,799.70 | 4,872.30 |
| China | 1,134.30 | 529.55 | 223.25 |
| Other countries | 997.20 | 685.45 | 578.45 |
| Total | 18,427.20 | 17,339.80 | 16,139.40 |

**REQUIRED:**

1. Analyze the performance of Radisson Electric.

# Problem: 5-Way Analysis of ROE at Camden

Camden Inc. is a major Canadian retail chain.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Camden Inc.**  **Income Statement**  **For the Year Ending December 31 (CAD thousands)** | | | | |
|  | **2012** | | **2011** | |
| Net sales | 654,600 | 100.00% | 732,300 | 100.00% |
| Cost of sales | 345,780 | 52.82% | 423,400 | 57.82% |
| Gross profit | 308,820 | 47.18% | 308,900 | 42.18% |
| Operating expenses | 200,400 | 30.61% | 184,600 | 25.21% |
| Income before interest and taxes | 108,420 | 16.56% | 124,300 | 16.97% |
| Interest expense | 36,236 | 5.54% | 22,246 | 3.04% |
| Income before taxes | 72,184 | 11.03% | 102,054 | 13.94% |
| Income taxes | 18,046 | 2.76% | 25,514 | 3.48% |
| Net income | 54,138 | 8.27% | 76,540 | 10.45% |

|  |  |  |
| --- | --- | --- |
| **(CAD thousands)** | **2012** | **2011** |
| Average total assets | 785,400 | 676,300 |
| Average total equity | 332,450 | 398,220 |

In early 2012, Camden raised its prices and initiated a major capital improvement program to update its stores. The industry average debt ratio is currently 41.0%.

**Required:**

1. Perform a 5-way analysis of ROE for Camden in 2011 and 2012.

2. Analyze the performance of Camden from 2011 to 2012 using the vertical analysis provided and the 5-way analysis of ROE from Part 1.

## Problem: 5-Way Analysis of ROE at Excel

Excel Ltd. is a distributor of industrial parts and supplies.

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| --- | --- | --- | --- | --- | --- |
| **Excel Ltd.**  **Income Statement**  **For the Year Ending December 31 (CAD thousands)** | | | | | |
|  | **2019** | | | **2018** | |
| Net sales | 1,855,200 | 100.00% | 1,766,780 | | 100.00% |
| Cost of sales | 923,570 | 49.78% | 915,690 | | 51.83% |
| Gross profit | 931,630 | 50.22% | 851,090 | | 48.17% |
| Operating expenses |  |  |  | |  |
| Selling and administration | 730,380 | 39.37% | 727,430 | | 41.17% |
| Income before interest and taxes | 201,250 | 10.85% | 123,660 | | 7.00% |
| Interest expense | 41,626 | 2.24% | 40,728 | | 2.31% |
| Income before taxes | 159,624 | 8.60% | 82,932 | | 4.69% |
| Income taxes | 33,521 | 1.81% | 20,733 | | 1.17% |
| Net income | 126,103 | 6.80% | 62,199 | | 3.52% |

|  |  |  |
| --- | --- | --- |
| **(CAD thousands)** | **2019** | **2018** |
| Average total assets | 1,320,890 | 1,305,600 |
| Average total equity | 800,560 | 796,500 |

In early 2019, Excel implemented a program to boost manufacturing efficiency and lower corporate overhead which improved its credit rating. Its corporate tax rate fell from 25.0% to 21.0%.

**REQUIRED:**

1. Perform a 5-way analysis of ROE in 2018 and 2019.
2. Analyze Excel’s performance from 2018 to 2019 using the vertical analysis provided and the 5-way analysis of ROE from Part 1.

**Problem: Basic and Diluted Earnings Per Common Share**

South Thompson Wineries’ net income was CAD 6,800,000 in 2019. On December 31, 2019, the winery had 1,750,000 outstanding common shares, but it issued 300,000 new shares on May 1 and repurchased 100,000 shares on September 30. On December 31, it announced a 2-for-1 stock split due to a rapid increase in its share price.

In addition to common shares, South Thompson had 90,000 preferred shares outstanding with a CAD 5.50 cumulative annual dividend. These shares were issued in 2018 and are each convertible into eight common shares after including the stock split.

**REQUIRED:**

1. Calculate basic and diluted earnings per common share for 2019.

**Problem: Preparing a Cash Flow Statement**

|  |  |  |  |
| --- | --- | --- | --- |
| **Victoria Company**  **Balance Sheet**  **December 31, 2019 (CAD thousand)** | | | |
|  | **2019** |  | **2018** |
| Cash and cash equivalents  Accounts receivable  Inventories  Prepaid expenses  Long-term investments  Land  Plant and equipment  Accumulative depreciation  **Total Assets**  Accounts payable  Line of credit  Accrued liabilities  Interest payable  Taxes payable  Bonds payable  Common shares  Retained earnings  **Total Liabilities and Equity** | 45,000  112,000  130,000  3,000  15,000  120,000  500,000  (110,000)  815,000  75,000  15,000  9,000  1,000  42,000  140,000  400,000  133,000  815,000 |  | 39,000  104,000  115,000  5,000  25,000  75,000  430,000  (95,000)  698,000  65,000  25,000  12,000  0  15,000  240,000  250,000  91,000  698,000 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Victoria Company**  **Income Statement**  **For the Year Ending December 31, 2019 (CAD thousand)** | | | |
| Net sales  Cost of sales  Gross profit  Operating expenses  Salaries  General administrative  Selling  Payroll taxes  Depreciation  Operating income  Gain on sale of investments  Interest revenue  Interest expense  Loss on sale of fixed assets  Net income before taxes  Income taxes  Net income |  |  | 2,930,000  1,730,000  1,200,000  430,000  250,000  195,000  50,000  70,000  205,000  4,000  2,000  6,000  2,000  203,000  50,000  153,000 |

**Other Information:**

Jefferson Company has a policy of replacing fixed assets when they are 50.0% depreciated. Plant and equipment with an original cost of CAD 110,000,000 were sold. Interest expense, interest income, dividend income, and income taxes are included in operating activities. Dividends paid are included in financing activities.

**REQUIRED:**

1. Prepare a cash flow statement using the indirect approach.

2. Re-calculate cash flow from operations using the direct method.

**Problem: Analyzing a Cash Flow Statement**

Hecla Ltd. is a successful new manufacturing business. Gladys Willobey currently owns 65.0% of the company and serves as the CEO. Sales and profits have grown quickly in recent years, but Willobey is concerned about the company’s falling cash balances and rising debt ratio, and her declining ownership position.

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| --- | --- | --- |
| **Hecla Ltd.**  **Cash Flow Statement**  **For the Year Ending December 31, 2018 (CAD thousands)** | | |
| Operations |  |  |
| Net income |  | 150,000 |
| Depreciation expense | 27,500 |  |
| Loss on sale of assets | 2,670 |  |
| Increase in accounts receivable | (124,000) |  |
| Increase in inventories | (110,340) |  |
| Increase in prepaid expenses | (1,500) |  |
| Increase in accounts payable | 14,630 |  |
| Increase in other liabilities | 2,980 | (188,060) |
| Net cash flows from operations |  | (38,060) |
| Investing |  |  |
| Acquisition of land | (143,600) |  |
| Acquisition of building | (175,500) |  |
| Acquisition of equipment | (189,600) |  |
| Net cash flows from investing |  | (508,700) |
| Financing |  |  |
| Dividends | (250,000) |  |
| Banks loans | 298,500 |  |
| Common shares | 455,000 |  |
| Net cash flows from financing |  | 503,500 |
| Net decrease in cash |  | (43,260) |

**REQUIRED:**

1. Analyze Hecla’s 2018 cash flow statement.

**Problem: Cash Flow-Based Financial Ratios**

|  |  |  |
| --- | --- | --- |
| **ABC Company Ltd.**  **Income Statement**  **For the Year Ending December 31 (CAD thousands)** | | |
|  | **2011** | **2010** |
| Sales | 450,000 | 380,000 |
| Cost of sales | 235,000 | 205,000 |
| Gross profit | 215,000 | 175,000 |
| Operating expenses |  |  |
| Management salaries | 105,000 | 85,000 |
| Rent | 25,000 | 23,000 |
| Depreciation | 10,000 | 8,000 |
| Telephone | 1,500 | 700 |
| Repairs and maintenance | 6,000 | 5,000 |
| Wages and benefits | 26,000 | 20,000 |
| Miscellaneous | 2,000 | 1,500 |
| Total operating expenses | 175,500 | 143,200 |
| Income before interest and taxes | 39,500 | 31,800 |
| Interest expense | 25,000 | 20,000 |
| Income taxes | 3,000 | 2,500 |
| Net income | 11,500 | 9,300 |

|  |  |  |  |
| --- | --- | --- | --- |
| **ABC Company Ltd.**  **Balance Sheet**  **As of December 31 (CAD thousands)** | | | |
|  | **2011** | **2010** |
| Current assets |  |  |
| Cash and cash equivalents | 18,000 | 25,000 |
| Short-term investments | 35,000 | 30,000 |
| Accounts receivable | 7,000 | 4,000 |
| Inventory | 90,000 | 80,000 |
| Prepaid expenses | 2,000 | 1,500 |
| Total current assets | 152,000 | 140,500 |
| Fixed assets |  |  |
| Land | 50,000 | 50,000 |
| Building | 200,000 | 200,000 |
| Equipment | 175,000 | 125,000 |
| Sub-total | 425,000 | 375,000 |
| Less: accumulative depreciation | (102,000) | (92,000) |
| Total fixed assets | 323,000 | 283,000 |
| Total assets | 475,000 | 423,500 |
| Current liabilities |  |  |
| Accounts payable | 60,000 | 50,000 |
| Operating line of credit | 15,000 | 10,000 |
| Current portion of long-term debt | 10,000 | 10,000 |
| Total current liabilities | 85,000 | 70,000 |
| Long-term liabilities |  |  |
| Bond payable | 190,000 | 165,000 |
| Shareholders’ equity |  |  |
| Preferred shares | 5,000 | 5,000 |
| Common shares | 15,000 | 10,000 |
| Retained earnings | 180,000 | 173,500 |
| Total shareholders’ equity | 200,000 | 188,500 |
| Total liabilities and shareholders’ equity | 475,000 | 423,500 |

|  |  |  |
| --- | --- | --- |
| **ABC Company**  **Cash Flow Statement**  **For the Year Ending December 31 (CAD thousands)** | | |
| Operations |  | **2011** |
| Net income |  | 11,500 |
| Add (deduct): |  |  |
| Depreciation expense | 10,000 |  |
| Increase in accounts receivable | (3,000) |  |
| Increase in inventories | (10,000) |  |
| Increase in prepaid expenses | (500) |  |
| Increase in accounts payable | 10,000 | 6,500 |
| Net cash flows from operations |  | 18,000 |
| Investing |  |  |
| Purchase of short-term investments | (5,000) |  |
| Acquisition of equipment | (50,000) |  |
| Net cash flows from investing |  | (55,000) |
| Financing |  |  |
| Banks loans | 5,000 |  |
| Bonds payable | 25,000 |  |
| Common shares | 5,000 |  |
| Dividends | (5,000) |  |
| Net cash flows from financing |  | 30,000 |
| Net decrease in cash |  | (7,000) |

**Other information**

The market value of ABC’s common share is CAD 22.00 and it has 10,000 common shares and 5,000 preferred shares outstanding. The preferred shares pay a CAD 0.10 annual dividend. The common share dividend in 2011 was CAD 0.45. Interest expense, interest income, and income taxes are included in operating activities. Dividends paid are included in financing activities. Average daily expenditures are estimated to be CAD 12,000,000 per day. The tax rate is 21.0%.

**REQUIRED:**

1. Calculate the following cash flow-based financial ratios:

Operating cash flow ratio

Defensive interval

Cash to income ratio

Cash to fixed assets ratio

Cash flow coverage

Free cash flow

Free cash flow coverage

Interest coverage

Debt coverage

Debt payment coverage

Capital expenditure coverage

Dividend coverage

Cash flow margin

Cash return on assets

Cash return on equity

Cash flow per common share

Price-to-cash-flow ratio

1. Why substitute CFO for net income in cash flow-based ratios?
2. How could a company manipulate CFO to improve its cash flow-based ratios?

**Problem: Financial Statement Analysis at Durable**

Durable Inc. is a retailer of commercial truck tires in British Columbia. The company began a major expansion in early 2015, which included new store openings and a major advertising campaign. They hoped these actions would dramatically improve the company’s financial performance.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Financial Ratios** | **2015** | **2016** | **2017** | **Industry Average** |
| Current ratio | 1.88 | 1.36 | 0.93 | 1.90 |
| Cash ratio | 0.38 | 0.16 | 0.04 | 0.51 |
| Inventory turnover in days | 81.11 | 77.95 | 96.66 | 60 days |
| Accounts receivable turnover in days | 10.14 | 9.70 | 13.34 | 30 days |
| Accounts payable turnover in days | 14.87 | 17.79 | 40.56 | 15 days |
| Net operating cycle | 76.38 | 69.86 | 69.44 | 75 days |
| Fixed assets turnover | 2.56 | 1.93 | 1.34 | 3.19 |
| Total assets turnover | 1.72 | 1.46 | 1.07 | 2.00 |
| Times interest earned | 8.87 | 3.06 | 1.08 | 7.63 |
| Debt ratio | 35.00% | 60.53% | 75.25% | 30.00% |
| Gross profit margin | 40.00% | 39.00% | 38.00% | 42.00% |
| Operating profit margin | 11.09% | 8.83% | 5.53% | 12.00% |
| Net profit margin | 5.90% | 3.56% | 0.25% | 6.71% |
| Return on assets | 11.46% | 7.73% | 3.54% | 13.42% |
| Return on equity | 15.65% | 13.19% | 1.09% | 19.17% |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **5-Way Analysis of ROE** | **Operating Profit Margin** | **Interest Burden** | **Tax Burden** | **Total Asset Turnover** | **Debt Ratio** | **ROE** |
| 2015 | 11.09% | 88.72% | 60.00% | 1.72 | 35.00% | 15.65% |
| 2016 | 8.83% | 67.31% | 60.00% | 1.46 | 60.53% | 13.19% |
| 2017 | 5.53% | 7.64% | 60.00% | 1.07 | 75.25% | 1.09% |

As a condition of its loans, Durable must maintain a current ratio of 1.5 and times interest earned of 5.0. Credit sales to customers are on terms 2/10, net 30, while inventory is purchased at 3/15, net 30.

**REQUIRED:**

1. Briefly analyze the financial performance of Durable from the following perspectives:

Liquidity

Asset management

Long-term debt-paying ability

Profitability

**Problem: Financial Statement Analysis at Acme Furniture**

Acme Furniture is a manufacturer of high-end furniture located in Prince Albert, Saskatchewan. The company was founded in late 2015 when its owner, Kate Edwards, purchased a small factory and the necessary manufacturing equipment. After a very successful 2016, the company began to purchase additional equipment. By late 2017, the factory was becoming too small due to growing sales and large inventories of raw materials and work-in-progress, so a new building and additional equipment were purchased.

The Prince Albert economy is booming and it is very difficult to find skilled furniture makers. As a result, Acme was forced to give its workers significant increases in wages and benefits. Also, key production inputs such as fine leathers and foam cushioning rose dramatically in price due to the rapid expansion of the Chinese furniture industry.

By 2018, Acme began to expand into the U.S. market, so it started to take out ads in several American design magazines to test the market and prepared an expensive new catalog displaying its many products. With the prospect of increased orders in the U.S., the company expanded its order processing, shipping/receiving, and accounting functions despite a recession that began in 2018.

When Acme received its 2018 financial statements and key financial ratios from its accountants in mid-January 2019, Kate Edwards became quite concerned about the dramatic drop in profits.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2016** | **2017** | **2018** | **Industry Average** |
| **Liquidity** |  |  |  |  |
| Current ratio | 2.53 | 2.14 | 1.69 | 2.50 |
| Cash ratio | 0.20 | 0.12 | 0.02 | 0.50 |
| **Asset Management** |  |  |  |  |
| Inventory turnover in days | 181.39 | 167.60 | 164.40 | 90 days |
| Accounts receivable turnover in days | 61.58 | 63.21 | 76.70 | 60 days |
| Accounts payable turnover in days | 59.59 | 75.34 | 90.96 | 15 days |
| Net operating cycle | 183.38 | 155.48 | 150.14 | 135 days |
| Fixed asset turnover | 3.65 | 3.03 | 2.97 | 4.01 |
| Total asset turnover | 1.25 | 1.19 | 1.14 | 2.21 |
| **Long-term Debt-Paying Ability** |  |  |  |  |
| Fixed charge coverage ratio | 5.26 | 4.46 | 2.02 | 3.21 |
| Long-term debt to total capitalization ratio | 0.44 | 0.50 | 0.60 | .30 |
| **Profitability** |  |  |  |  |
| Gross profit margin | 40.11% | 36.83% | 32.44% | 45% |
| Operating profit margin | 15.41% | 13.56% | 4.51% | 25% |
| Net profit margin | 8.25% | 6.75% | 0.42% | 10% |
| ROA | 13.26% | 11.12% | 3.57% | 22% |
| ROE | 24.03% | 21.21% | 1.80% | 31% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **3-Way Analysis of ROE** | | | | | |
|  | **Net Profit Margin** | **Total Asset Turnover** | **Debt Ratio** | **ROE** |
| **2016** | 8.25% | 1.25 | 57.17% | 24.04% |
| **2017** | 6.75% | 1.19 | 62.20% | 21.21% |
| **2018** | 0.42% | 1.14 | 73.36% | 1.80% |

**Other Information:**

Acme was able to secure both a line of credit and term loan with the Bank of Montreal. All loans require that the company maintain a current ratio of 2.0 or higher, a fixed charge coverage ratio of at least 4.0, and a long-term debt to total capitalization ratio of less than 0.55.

Acme sells all products on credit terms net 60 and purchases inputs on credit terms 2/15, net 60.

**REQUIRED:**

1. Briefly analyze the financial performance of Acme Furniture from the following perspectives:

Liquidity

Asset management

Long-term debt-paying ability

Profitability

## Problem: Financial Statement Analysis at Lamar

Bob Adkins has recently been approached by his cousin, Ed Lamar, with an offer to buy a 15.0% interest in Lamar Swimwear. The company domestically manufactures stylish bathing suits domestically and has been growing dramatically since starting operations in January 2017. Bob invested in a previous business of Ed’s and found him to be quite stubborn and autocratic in his dealings with others. The business was very profitable, so Bob will consider investing in this latest venture.

|  |  |  |  |
| --- | --- | --- | --- |
| **Lamar Swimwear Ltd.**  **Income Statement**  **For the Year Ending December 31 (CAD thousands)** | | | |
|  | **2019** | **2018** | **2017** |
| Sales | 1,875,000 | 1,500,000 | 1,200,000 |
| Cost of sales | 1,310,000 | 1,040,000 | 800,000 |
| Gross profit | 565,000 | 460,000 | 400,000 |
| Selling and administration | 174,700 | 199,000 | 179,900 |
| Depreciation expense | 130,000 | 75,000 | 60,000 |
| Operating profit | 260,300 | 186,000 | 160,100 |
| Interest expense | 85,000 | 45,000 | 35,000 |
| Income before taxes | 175,300 | 141,000 | 125,100 |
| Income taxes | 55,600 | 49,200 | 36,900 |
| Net income | 119,700 | 91,800 | 88,200 |
| Shares | 38,000 | 30,000 | 30,000 |
| Basic earnings per share | 3.15 | 3.06 | 2.94 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lamar Swimwear Ltd.**  **Balance Sheet**  **December 31 (CAD thousands)** | | | |
|  | **2019** | **2018** | **2017** |
| Cash and cash equivalents | 30,000 | 40,000 | 30,000 |
| Short-term investments | 30,000 | 25,000 | 20,000 |
| Accounts receivable | 360,000 | 259,000 | 170,000 |
| Inventory | 290,000 | 261,000 | 230,000 |
| Total current assets | 710,000 | 585,000 | 450,000 |
| Plant and equipment, net | 1,390,000 | 765,000 | 650,000 |
| Total assets | 2,100,000 | 1,350,000 | 1,100,000 |
| Accounts payable | 505,000 | 310,000 | 200,000 |
| Accrued expenses | 35,000 | 30,000 | 20,400 |
| Current portion of long-term debt | 75,000 | 40,000 | 32,000 |
| Total current liabilities | 615,000 | 380,000 | 252,400 |
| Long-term liabilities | 628,900 | 323,600 | 293,000 |
| Shareholders’ Equity |  |  |  |
| Common shares | 340,000 | 250,000 | 250,000 |
| Retained earnings | 516,100 | 396,400 | 304,600 |
| Total liabilities and equity | 2,100,000 | 1,350,000 | 1,100,000 |

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| --- | --- |
| **Industry Average Ratios** | |
|  | **2019** |
| Current ratio | 2.02 |
| Quick ratio | 1.26 |
| Cash ratio | .60 |
| Accounts receivable turnover in days | 39 days |
| Inventory turnover in days | 71 days |
| Accounts payable turnover in days | 60 days |
| Net operating cycle | 50 days |
| Fixed assets turnover | 1.75 |
| Total assets turnover | 1.12 |
| Times interest earned | 6.61 |
| Fixed burden coverage ratio | 4.73 |
| Debt ratio | 44.00% |
| Long-term debt to total capitalization ratio | 35.65% |
| Gross profit margin | 32.00% |
| Operating profit margin | 14.59% |
| Net profit margin | 7.96% |
| Return on assets | 11.94% |
| Return on equity | 16.01% |
| Growth rate in sales | 12.00% |
| Growth rate in EPS | 13.30% |

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| --- | --- |
| **Income Statement – 2019**  **Industry Average Vertical Analysis (%)** | |
| Sales | 100.00 |
| Cost of goods sold | 68.00 |
| Gross profit | 32.00 |
| Selling and administration | 10.51 |
| Depreciation expense | 6.90 |
| Operating profit | 14.59 |
| Interest expense | 2.20 |
| Income before taxes | 12.39 |
| Income taxes | 4.43 |
| Net income | 7.96 |

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| --- | --- |
| **Balance Sheet – 2019**  **Industry Average Vertical Analysis (%)** | |
| Cash and cash equivalents | 5.00 |
| Short-term investments | 5.14 |
| Accounts receivable | 11.09 |
| Inventory | 12.77 |
| Total current assets | 34.00 |
| Plant and equipment, net | 66.00 |
| Total assets | 100.00 |
| Accounts payable | 12.71 |
| Accrued expenses | 1.60 |
| Current portion of long-term debt | 2.55 |
| Total current liabilities | 16.86 |
| Long-term liabilities | 27.14 |
| Shareholders’ equity |  |
| Common shares | 25.00 |
| Retained earnings | 31.00 |
| Total liabilities and equity | 100.00 |

**Other Information**

All sales are made on credit with the terms net 30. Most of the customers are small retailers, so late payments and bad debts are a problem for all companies in the industry. Prices vary depending on the popularity of the particular style of bathing suit. Lamar’s suits sold well in 2019 allowing the company to charge a slight price premium.

Materials are purchased on credit with the terms net 60. Manufacturers use the same types of materials in production and pay similar prices. Scrap produced during production is monitored carefully and can be significant if allowed to rise above standard cost. Lamar had difficulty with scrap in 2019. Lamar has also received a warning about not paying its accounts payable within the required period.

Selling and administration expenses have a large fixed component. Ed Lamar became conscious of the need to be very frugal during the company’s early development.

The company does not lease any of its assets. Principal payments were CAD 32,000, CAD 35,000, and CAD 59,000 in 2017, 2018, and 2019. Lamar’s lenders are becoming worried about its high debt ratio and have begun to raise interest rates to reflect the higher risk.

The company benefited from several new tax credits on its equipment purchases. No dividends were paid in 2017, 2018, and 2019, as the funds were needed for growth.

### Required:

1. Prepare the following financial exhibits for 2017, 2018, and 2019:

Ratio table with industry averages

Analysis of ROE (2018 and 2019 only)

Vertical analysis and horizontal analysis (index numbers)

Cash flow statements (2018 and 2019 only)

1. Analyze the financial condition of Lamar Swimwear and recommend to Bob Adkins whether he should invest in the company.

## Problem: Financial Statement Analysis at The RV Store

Friendly Frank’s Used RVs is a recreational vehicles (RVs) retailer owned by Frank Cardosa. Frank started his company three years ago and has been pleased with its growth although profitability could be better. Before 2012, Frank sold only used RVs, but in 2012, he changed his business plan to focus much more on selling high-margin, new units to a wealthier clientele. The business is located in Kamloops, British Columbia, and has several competitors in the city as well as in Kelowna and the Lower Mainland. Kamloops has a lower average income compared to these two markets. Cardosa hired a local CFA to analyze the performance of his company.

|  |  |  |  |
| --- | --- | --- | --- |
| **The RV Store**  **Income Statement**  **For the Year Ending December 31 (CAD)** | | | |
|  | **2012** | **2011** | **2010** |
| Sales | 2,800,000 | 2,515,000 | 1,947,000 |
| Cost of sales | 1,960,000 | 1,952,000 | 1,489,000 |
| Gross profit | 840,000 | 563,000 | 458,000 |
| Depreciation | 40,400 | 12,400 | 9,300 |
| Other operating expenses | 700,000 | 379,000 | 300,000 |
| Income before interest and taxes | 99,600 | 171,600 | 148,700 |
| Interest | 97,420 | 28,900 | 23,600 |
| Income before taxes | 2,180 | 142,700 | 125,100 |
| Income taxes | 872 | 57,080 | 50,040 |
| Net income | 1,308 | 85,620 | 75,060 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **The RV Store**  **Balance Sheet**  **As of December 31 (CAD)** | | | | |
|  | **2012** | **2011** | **2010** |
| Cash and cash equivalents | 23,000 | 67,000 | 63,800 |
| Accounts receivable | 88,000 | 54,000 | 32,000 |
| Inventories | 1,230,000 | 678,000 | 475,700 |
| Prepaid expenses | 23,000 | 24,000 | 15,000 |
| Total current assets | 1,364,000 | 823,000 | 586,500 |
| Property, plant, and equipment | 1,010,000 | 310,000 | 232,500 |
| Less: accumulative depreciation | 62,100 | 21,700 | 9,300 |
| Net property, plant, and equipment | 947,900 | 288,300 | 223,200 |
| Total assets | 2,311,900 | 1,111,300 | 809,700 |
| Accounts payable | 187,200 | 54,000 | 40,500 |
| Other payables | 225,462 | 64,270 | 43,400 |
| Line of credit | 661,000 | 274,600 | 132,990 |
| Current portion of long-term debt | 45,500 | 14,000 | 12,000 |
| Total current liabilities | 1,119,162 | 406,870 | 228,890 |
| Long-term debt | 683,000 | 196,000 | 158,000 |
| Shareholders’ equity | 509,738 | 508,430 | 422,810 |
| Total liabilities and equity | 2,311,900 | 1,111,300 | 809,700 |

|  |  |  |
| --- | --- | --- |
| **The RV Store**  **Cash Flow Statement**  **For the Year Ending December 31 (CAD)** | | |
|  | **2012** | **2011** |
| **Operations** |  |  |
| Net Income | 1,308 | 85,620 |
| Add: Depreciation | 40,400 | 12,400 |
| Change in prepaid expenses | 1,000 | - |
| Change in accounts payable | 133,200 | 13,500 |
| Change in other payables | 161,192 | 20,870 |
| Less: Change in accounts receivable | 34,000 | 22,000 |
| Change in inventory | 552,000 | 202,300 |
| Change in prepaid expenses | - | 9,000 |
| Total | (248,900) | (100,910) |
| **Investments** |  |  |
| Dealership improvements | (700,000) | (77,500) |
| **Financing** |  |  |
| Change in line-of-credit | 386,400 | 141,610 |
| Change in long-term debt | 518,500 | 40,000 |
| Total | 904,900 | 181,610 |
| **Change in cash and cash equivalents** | (44,000) | 3,200 |

### Other information:

The following industry averages are available:

|  |  |
| --- | --- |
| Current ratio | 1.67 |
| Cash ratio | .16 |
| Inventory turnover in days | 172 |
| Accounts receivable turnover in days | 5 |
| Accounts payable turnover in days | 10 |
| Net operating cycle | 168 |
| Fixed assets turnover | 3.89 |
| Total assets turnover | 1.65 |
| Times interest earned | 6.73 |
| Long-term debt to total capitalization | 36.33% |
| Gross profit margin | 37.93% |
| Operating profit margin | 12.76% |
| Net profit margin | 6.52% |
| Return on assets | 12.64% |
| Return on equity | 25.20% |

Note: Industry averages are calculated using year-end figures and high-end retailers only.

In early 2012, work was completed on a renovation of Friendly Frank’s sales facility. The display lot was repaved and extended in 2011. As mentioned, these improvements are part of a strategy to enhance the company’s image and expand its selection to include higher-margin, new RVs. The refurbished building was quite large and luxurious, and it was expected to lead to higher inventory turnover and an increased gross profit margin. Also, as part of the new strategy, Frank changed the name of his business to The RV Store to help build a higher quality image. The company spent heavily on local print, radio, and TV advertising to promote the new name and improved selection.

Two additional salespersons were hired in 2012 to assist Frank. They were paid on salary instead of straight commission, which is not the industry norm. This was expected to result in a more relaxed selling atmosphere for customers, and lead to higher sales. Sizable raises were also given to attract salespeople with superior product knowledge.

All customers buy their RVs on credit and negotiate financing with The RV Store. There is a delay between the time a unit is sold and when the company receives payment from the factor that it sells the loan to. The RV Store usually processes the sales contract within the week.

RV Store finances its inventory using a CAD 1,000,000 line of credit that it negotiated with the Bank of Montreal. The company can borrow up to 70.0% of its inventory only and must maintain a current ratio of 1.5 and times interest earned of 4.0. Separate term and mortgage loans were also arranged to finance capital purchases. RVs are bought from several suppliers on the credit terms 2/10, net 30.

The new sales facility also includes space in the back for a new, 5-bay service area. In the past, the used RVs were off manufacturer warranty and customers got their repair work done at a local garage that had a bay where a mechanic specialized in RVs. With the move into new RVs, manufacturers required that he provide his customers with warranty service on-site soon or contract it out to an approved contractor. His higher-end clientele also requires this “one-stop” convenience. Five bays are too many at this time, but Frank hopes to expand his service business over the next few years as it has a very high-profit margin. Shop tools and other machinery have yet to be purchased and would be expensive.

A fairly severe slowdown in the local economy is forecasted in 2013 due to a major mine closing and the downsizing of several provincial ministry offices. The national economy is expected to continue to do well.

### Required:

1. Prepare the following financial exhibits for 2010, 2011, and 2012:

Ratio table with industry averages

Vertical analysis of income statements and balance sheets

Horizontal analysis of income statements and balance sheets (index numbers)

A 5-way analysis of ROE for 2010, 2011, and 2012

1. Analyze the financial condition of The RV Store and make recommendations to address any problems.

**Discussion: Financial Statement Analysis at a Canadian Company**

**REQUIRED:**

1. Access WestJet’s last annual report for 2018 found on SEDAR or the web. The company went private in December 2019.
2. Compare the financial and operational performance of WestJet with Air Canada using the highlight information in Section 1.11 of the reading and p. 8 of WestJet’s annual report.
3. Prepare an approximately 200-word submission describing your findings in Part 2. All submissions should be well researched and carefully written and edited before being posted to the discussion board.
4. Respond to the posts of at least three classmates.