

# THE IMPACT OF NEW LEASE STANDARDS UNDER USGAAP AND IFRS ON THE FINANCIAL RATIOS

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## CASE DESCRIPTION

*Most of the world financial market economies have adopted International Reporting Standards (IFRS) as the necessary framework for financial statements. In the United States, Generally Accepted Accounting Principles (GAAP) is still required, but the adoption of IFRS has the support of many accounting firms and professional organizations and is under consideration by the SEC. The revised lease guidelines under GAAP and IFRS shows a similar effect on the financial ratios and eliminate off-balance sheet financing. This case study illustrates the differences in the treatment of leases and the impact of these differences on financial statements and selected financial ratios after the year 2019. In a given situation, students use GAAP financial statements and prepare an IFRS based balance sheet, cash flow statement and income statement. It is necessary to understand both the revised GAAP and IFRS rules regarding leases to address our case study. Our case study is appropriate for use at both the undergraduate and graduate levels. It may be used in an Intermediate Accounting II, Accounting Theory, Financial Statement Analysis or an International Accounting class, as well as an Investment Finance course. Our case study can be offered as an individual case study or as a group project.*

**JEL:** M4, M41, M42, M48, M49

**KEYWORDS:** US GAAP, IFRS, Right-of-use asset, Capital Lease, Operating Lease, and Financial Ratios.

## Introduction

Thomas, Peter, and Michelle, (2016) in a case study illustrated the treatment of lease under the GAAP and IFRS and their impact on the financial ratios. They demonstrated that under IFRS the financial statement ratios had a more negative impact on bond covenant agreements as well as other liabilities. Our case study illustrates the GAAP and IFRS treatment of leases and the impact on financial ratios under the revised lease rules Accounting Standards Update (ASC) 842 and IFRS 16. The Financial Accounting Standards Board (from now on FASB) is amending the FASB Accounting Standards Codification and creating Accounting Standards Update(ASC) 842, Leases. This Update, along with IFRS 16, Leases, is the results of the FASB's and the International Accounting Standards Board's (IASB's) efforts to meet that objective and improve financial reporting (FASB Accounting Standards Update 2016). The updates are effective for fiscal years beginning after December 15, 2018, including interim periods for the following entities:

- (a) a public business entity,
- (b) a not for profit entity that has issued or is a conduit bond obligor for, securities that are traded, listed, or quoted on an exchange or an over-the-counter market, and
- (c) An employee benefit plan that files financial statements with the U.S. Securities and Exchange Commission (SEC). For other entities, amendments are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. The FASB allows early application of the amendments for all entities (FASB ASC 2016\_02 Section A). ASC 842 requires businesses to recognize most leases on their balance sheet—essentially all contracts that meet the definition of a lease, including operating leases, will be recognized on balance sheets via a right-of-use (ROU) asset

and a lease liability. The right-of-use asset is a lessee's right to use an over the life of a lease. If a right-of-use asset is determined to be impaired, the impairment is immediately recorded, thereby reducing the carrying amount of the asset (FASB 2016).

ASC 842 signifies a substantial revamp of the accounting treatment for leases, with the most significant change being that most leases, including most operating leases, will now be capitalized on the balance sheet. Under ASC 840, FASB permitted operating leases to be reported only in the footnotes of corporate financial statements. Under ASC 842, the only leases that are exempt from the capitalization requirement are short-term leases less than or equal to 12 months in length (ASC 842 Review 2018).

Another important update is the Type A and Type B leases. The “level of consumption” is the determining factor. Type A lease is one where a more than an insignificant amount of the value of the leased asset is used up during the lease period. Most leases other than property, such as equipment and vehicles, fall into this category. Type A lessees would recognize a right-of-use asset and lease liability, initially measured at the present value of the lease payments and recognize the unwinding of the discount on the lease liability as interest separately from the amortization of the right-of-use asset (Lease Query 2016).

In Type B leases, an insignificant portion of the leased asset is consumed during the lease period. Most real estate leases fit into this category. Type B lessees would recognize a right-of-use asset and a lease liability initially measured at the present value of the lease payments and would recognize a single lease cost on a straight-line basis, combining the unwinding of the discount on the lease liability with the amortization of the right-of-use asset (FASB 2016).

It is to be duly noted that ASC 842 differs from International Financial Reporting Standards (from now on IFRS) 16 in certain aspects of the lessee accounting model. ASC 842 makes a distinction between finance and operating leases in the financial statements in the lessee accounting model whereas IFRS 16 requires all leases to be accounted for consistent with ASC 842 approach for finance leases. As a result, operating leases under ASC 842 will be considered differently from IFRS, and that will show a different effect on the statement of comprehensive income and the statement of cash flows than previous IFRSs. This case study explores the impact of ASC 842 (FASB Accounting Standards Update 2016) and the IFRS 16 changes that come into force from Jan 1, 2019.

A global lease capitalization study by Price Waterhouse Coopers (PwC) shows an increase in median debt and Earnings before interest, tax, depreciation, and amortization (EBITDA) for most of the industries (IFRS -16).

## CASE INFORMATION

**A**CE Corporation (ACE), a publicly traded NASDAQ company (symbol ACE), is a manufacturer of electrical automobiles. It is based in Detroit, Michigan and the company has been operating since 1996. The company sells its electrical automobiles to auto manufacturers as well as the retail market on a worldwide basis. Its major clients are Ford, General Motors and Toyota. ACE has captured about 10 percent of the world market of electrical automobile sales. Its stock sells at 25 U.S. Dollars per share, and its 52-week price range is between 19.75 and 27.15 U.S. Dollars, with a market cap of 10.6 billion dollars.

Their financial statements presented below for the year ending December 31, 2019, has been prepared using GAAP. The controller would like to see the effect of IFRS treatment of leases on the financial statements; you have been assigned this task. In particular, the controller would like to know the impact GAAP and IFRS differences have on the balance sheet, income statement, cash flow statement, and selected financial ratios. The company would like to adopt IFRS by as early as next year as it is considering a new stock issue in the Tokyo Stock Exchange, which requires IFRS compliance.

Table 1: U.S. GAAP Balance Sheet for ACE Corp. at 12/31/2019 and 12/31/2018

| <b>ACE CORPORATION</b>  |                                   |                                     |
|---|-----------------------------------|-------------------------------------|
| <b>Balance Sheet (in 000 Except Par Value)</b>                  |                                   |                                     |
| <b>As of December 31, 2019, and 2018</b>                        |                                   |                                     |
| <b>ASSETS</b>   | <b>2019</b>                       | <b>2018</b>                         |
| <b>Current Assets</b>   |                                   |                                     |
| Cash  | \$ 33,000                         | \$ 19,000                           |
| Accounts Receivable (net)                                       | 25,000                            | 17,000                              |
| Inventory (FIFO)  | <u>50,000</u>                     | <u>21,000</u>                       |
| Total Current Assets  | 108,000                           | 57,000                              |
| <b>Noncurrent Assets</b>  |                                   |                                     |
| Security Available for Sale                                     | \$ 10,000                         | 0                                   |
| Property, Plant, and Equipment<br>less Accumulated Depreciation | <u>100,000</u><br><u>(30,000)</u> | <u>\$136,000</u><br><u>(28,000)</u> |
|   | 80,000                            | 108,000                             |
| <b>Intangible Assets</b>  |                                   |                                     |
| Trademark   | 5,000                             | 7,000                               |
| Goodwill  | <u>7,000</u>                      | <u>7,000</u>                        |
| Total Noncurrent Assets   | <u>12,000</u>                     | <u>14,000</u>                       |
| Total Assets  | <u>\$200,000</u>                  | <u>\$179,000</u>                    |
| <b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>                     |                                   |                                     |
| <b>LIABILITIES</b>  |                                   |                                     |
| <b>Current liabilities</b>                                      |                                   |                                     |
| Accounts payable  | \$ 18,000                         | \$ 17,000                           |
| Accrued interest  | 2,000                             | 2,000                               |
| Accrued operating expenses                                      | 13,000                            | 19,000                              |
| Income taxes payable  | <u>7,000</u>                      | <u>6,000</u>                        |
| Total current liabilities                                       | 40,000                            | 44,000                              |
| <b>Noncurrent Liabilities</b>                                   |                                   |                                     |
| Deferred income taxes   | \$ 5,000                          | \$ 4,000                            |
| Bonds Payable   | <u>45,000</u>                     | <u>45,000</u>                       |
| Total noncurrent liabilities                                    | <u>50,000</u>                     | <u>49,000</u>                       |
| Total Liabilities   | 90,000                            | 93,000                              |
| <b>SHAREHOLDERS' EQUITY</b>                                     |                                   |                                     |
| Common stock (\$1 par)  | 20,000                            | 18,000                              |
| Additional paid-in capital                                      | 30,000                            | 17,000                              |
| Retained earnings   | <u>60,000</u>                     | <u>51,000</u>                       |
| Total Shareholders' Equity                                      | <u>110,000</u>                    | <u>86,000</u>                       |
| Total Liabilities and Shareholders' Equity                      | <u>\$200,000</u>                  | <u>\$179,000</u>                    |

Table 1 shows the Balance Sheet of Ace Corporation for the years ended 12/31/12 and 12/31/11 presented under U.S. GAAP reporting. Note that the presentation is based on the order of liquidity-most liquid items followed by less liquid items.

Table 2: ACE Corp. U.S. GAAP Income Statement for the Year Ended December 31, 2019

| <b>ACE Corporation</b>   |              |                  |
|--|--------------|------------------|
| <b>Income Statement (in 000, Except Per Share Data)</b>            |              |                  |
| <b>For the Year Ended December 31, 2019</b>                        |              |                  |
| Sales  |              | \$270,000        |
| Cost of goods sold   |              | <u>(175,000)</u> |
| Gross profit   |              | 95,000           |
| Selling and administrative expenses                                | \$ 31,000    |                  |
| Amortization and depreciation expense                              | 10,000       |                  |
| Interest expense   | <u>4,000</u> | <u>(45,000)</u>  |
| Income before taxes  |              | 50,000           |
| Income tax expense   |              | <u>(15,000)</u>  |
| Income before extraordinary item                                   |              | 35,000           |
| Extraordinary loss from the hurricane (net of \$6,000 tax savings) |              | <u>(14,000)</u>  |
| Net Income   |              | <u>\$21,000</u>  |
| <b>Earnings per share:</b>   |              |                  |
| Earnings per share from continuing operations                      |              | \$1.75           |
| Extraordinary loss per share                                       |              | (0.70)           |
| Earnings per share   |              | <u>\$1.05</u>    |

Table 2 presents a statement of income for the year ended 12/31/12 prepared under U.S. GAAP reporting. Also included is the earnings per share amount which is derived by taking net income and divided by the number of common shares outstanding.

Table 3: ACE Corp. U.S. GAAP Cash Flow Statement for the Year Ended December 31, 2019

| <b>ACE Corporation</b>                      |                 |                 |
|---|-----------------|-----------------|
| <b>Cash Flow Statement (in 000)</b>         |                 |                 |
| <b>For the Year Ended December 31, 2019</b> |                 |                 |
| <b>Cash from Operating Activities</b>       |                 |                 |
| Net income                                  |                 | \$21,000        |
| Adjustments for noncash items:              |                 |                 |
| Loss from hurricane                         | \$14,000        |                 |
| Depreciation expense                        | 8,000           |                 |
| Amortization expense                        | 2,000           |                 |
| Increase in accounts receivable             | (8,000)         |                 |
| Increase in inventory                       | (29,000)        |                 |
| Increase in accounts payable                | 1,000           |                 |
| Change in accrued operating expenses        | (6,000)         |                 |
| Change in income taxes payable              | 7,000           |                 |
| Increase in deferred income taxes           | <u>1,000</u>    | <u>(10,000)</u> |
| <b>Net Cash from Operating Activities</b>   |                 | 11,000          |
| <b>Cash from Investing Activities</b>       |                 |                 |
| Insurance proceeds                          | \$10,000        |                 |
| Purchase securities available for sale      | <u>(10,000)</u> |                 |
| <b>Net Cash from Investing Activities</b>   |                 | -0-             |
| <b>Cash from Financing Activities</b>       |                 |                 |
| Issue common stock                          | \$15,000        |                 |
| Pay dividends                               | (12,000)        |                 |
| <b>Net Cash from Financing activities</b>   |                 | <u>3,000</u>    |
| Net increase in cash                        |                 | \$14,000        |
| Cash December 31, 2018                      |                 | <u>19,000</u>   |
| Cash December 31, 2019                      |                 | <u>\$33,000</u> |
| Additional supplemental disclosure:         |                 |                 |
| Cash paid for income taxes                  |                 | \$ 7,000        |
| Cash paid for interest                      |                 | \$ 4,000        |

Table 3 presents the Statement of Cash Flows for Ace Corp. for the year ended 12/31/12 under U.S. GAAP. The cash flow presented is the indirect method. Alternatively, the Direct method-not presented here is also the other acceptable cash flow statement under both U.S. GAAP and IFRS. The Direct Method is illustrated in the solution for question 5C where the Direct Method is presented in the solution under IFRS.

## ADDITIONAL INFORMATION

1. ACE entered into a noncancelable lease on January 2, 2019, with the following terms:
  - A. ACE leased specialized machinery manufactured by the lessor, Bell Corp., which enables ACE to manufacture their electric cars in a much more efficient manner. This machinery did not have a resale market and was made specifically for ACE to meet its specifications.
  - B. The lease term is for 3 years with an annual lease payment of \$10,000. Payment is due on December 31 of each year, with the first payment due on December 31, 2019. At the end of the lease term, ownership reverts to the lessor. There is no option for ACE to buy the equipment.
  - C. The lessee will pay all executor costs of \$1,500/year which included in 2102 selling and administration expenses.
  - D. The estimated useful life of the lease is 49 months (4 1/12 years.)
  - E. The fair market value of the equipment is \$30,000 on January 1, 2019.
  - F. The implicit rate of Bell Corp. is 6 percent, and the lessee, ACE, knows this.
  - G. ACE's incremental borrowing rate is 7 percent.
2. ACE Corporation did not sell any plant assets; however plant assets with a cost of \$36,000 and accumulated depreciation of \$6,000 were destroyed in a hurricane. Insurance proceeds of \$10,000 were collected by the company.

3. Two million shares of common stock were issued at the beginning of 2019.
4. Securities available for sale were purchased on December 31, 2019.
5. Cash dividends were paid during 2019.
6. ACE's bonds payable have several covenants that involve net income and cash from operating activities. The controller is especially concerned that the IFRS treatment of leases does not violate those covenants. She is concerned that renegotiating the debt covenants will be costly to ACE.

## QUESTIONS

1. Differentiate between an operating lease and a capital/ financing lease for financial reporting purposes.
2. Under GAAP, has this been treated as a capital lease/financing lease or an operating lease by ACE? Why?
3. Under GAAP ASC 842, should this lease be classified as operating or a financing lease? Why?
4. Under IFRS, should this lease be classified as an operating or a financing lease? Why?
5. Under revised IFRS 16, should this lease be classified as an operating or a financing lease? Why?
6. Describe the different reporting results between GAAP and IFRS and make the necessary adjusting entries to conform the financial statements to IFRS compliance for 2019.
7. In answering the following parts, keep in mind companies usually prefer to report higher net income and higher cash from operating activities (although accounting research has identified exceptions to this).
  - A. Prepare an income statement under IFRS for 2019.
  - B. Prepare balance sheet under IFRS on December 31, 2019.
  - C. Prepare a cash flow statement under IFRS for 2019.
8. Compute the following ratios for 2019, under both IFRS and GAAP reporting:
  1. Current Ratio
  2. Quick Ratio
  3. Cash Ratio
  4. Times Interest Earned
  5. Debt to Capital Ratio
  6. Debt to Shareholder Equity Ratio.
9. Comment on your findings in 8 above.

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