Early Evidence on the AS 3101 Critical Audit Matters Disclosure

Dana Hollie*

Introduction

For many years, the auditor’s report has remained unchanged; but on June 1, 2017, the Public Company Accounting Oversight Board (PCAOB) adopted a new auditing standard, AS 3101, The Auditor’s Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion. The new standard requires auditors to include a discussion of critical audit matters (CAM) in their independent report. This discussion should include: 1) any matters that have been communicated to the audit committee; 2) matters related to accounts or disclosures that are material to the financial statements; and 3) matters that involved especially challenging, subjective, or complex auditor judgement. The CAM-disclosure requirement will apply to annual audits for fiscal years ending on or after June 30, 2019 for large accelerated filers, and for fiscal years ending on or after December 15, 2020 for all other companies to which the requirement applies. This requirement is intended to make the auditor’s report more informative and relevant to investors and other users of financial statements. The CAMs are required to relate to the current period of the audit, but auditors can also include CAMs related to prior periods. Although CAMs may be associated with significant risk areas in the audit, not all significant risks may be deemed to be CAMs. Critical audit matters differ from critical accounting policies, which are determined by management and conveyed in the discussion and analysis section of the annual report. The communication of CAMs is the responsibility of the auditor, not the audit committee or management, and auditors should describe aspects of the audit process.

Examining the CAM disclosures for the June 30 year-end large accelerated firms provides an early look at what some of the more critical areas of an audit might consist of when conducting the annual audit. Overall, complying with the new CAM disclosure requirement has shown challenging and complex auditing areas for auditors, with 56 percent of the disclosures related to revenue recognition and the assessment of intangibles and related impairments, and another 28 percent of the CAMs related to income taxes and acquisitions. One hundred percent of these first-to-adopt large-accelerated filers reported at least one CAM in their auditor’s independent report. This result is not surprising since an audit firm would not want to possibly stand apart from other audit firms, or possibly open itself or its client to closer prospective regulatory scrutiny.

On some level, the percentage of CAMS that are related to revenue recognition is not surprising. Prior to the issuance of the new revenue recognition standard (ASC Topic 606, effective after December 15, 2017), revenue recognition was a major source of restatements (Whalen, et al., 2018). The delays related to the implementation of this new standard was also a clear signal that there could be some difficulties with its implementation, which was also indicated by several revisions made by the FASB that impacted the new guidance since its issuance, which are included in the following ASUs: ASU 2015-14, ASU 2016-08, ASU 2016-10, ASU 2016-12, ASU 2016-20, ASU 2017-05, ASU 2017-10, ASU 2017-13, ASU 2017-14, ASU 2018-08, and ASU 2018-18.

Two of the major challenges to implementing ASC606 were related to updating related internal systems and policies and modifying existing contracts with customers—both of these changes would take time for firms to implement. For example, most contract accounting software was designed to account for revenue recognition on contracts with customers based on percentage-of-completion standards. To ensure adequate systems were in place to properly adopt the new revenue recognition standard firms more than likely required consultation with their software provider and accountants to adequately update their systems for the new standard. The key was for firms not to wait to start the implementation process despite the delayed implementation date. Companies and auditors may have underestimated the complexity and the lengthiness of the process to successfully fully comply with the new standard within the specified timeframe, which may have also led to the

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number of CAMs related to revenue recognition, while these companies continue to work out the kinks in adopting ASC Topic 606.

The significant finding of CAMs related to identifiable intangible assets is not surprising, since the Financial Accounting Standards Board (FASB) is currently revisiting the subsequent accounting for goodwill and identifiable intangible assets for all entities. In 2018, the FASB added it to its technical agenda, which suggests regulators are aware that intangibles continue to be an area of concern that could benefit from additional guidance. The invitation to comment from stakeholders recently expired on October 7, 2019. A public roundtable discussion to gather feedback on the invitation to comment will follow in mid-November.

Although descriptive in nature, this study gives managers a heads-up on which areas they may want to focus before their year-end to address any of the potential issues that might arise during their audit. These results also give auditors a general idea of some of the more challenging and complex areas that auditors are experiencing during the annual audit. The audit firms (and their clients) may want to employ additional resources in the areas of revenue recognition and identifiable intangible assets to help head off some of these known issues that might extrapolate to their audits as well.

**Sample Selection and Empirical Findings**

**Sample Selection**

Reporting companies are classified into three categories: large accelerated filers, accelerated filers, and non-accelerated filers. Since only large accelerated filers are initially required to implement CAM disclosures into their independent auditor’s report, this study only focuses on this type of filer. Currently, a company is classified as a large accelerated filer if at the end of its fiscal year: 1) the company must have an aggregate market value of common equity held by its non-affiliates of $700 million or more, as of the last business day of its most recent second fiscal quarter; 2) the company had been subject to the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act for a period of at least 12 calendar months; and 3) the company had filed at least one annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act. As a result, only firms with a fiscal year-end on or after June 30, 2019 are included in the sample.¹

Table 1 provides the sample selection criteria. To identify the critical audit matters that auditors were reporting, we searched the Report of Independent Registered Public Accounting Firm disclosures, required in a firm’s 10-K filing, with CalcBench’s disclosures and footnotes query.² The initial CalcBench search yielded 635 observations for 2019 fiscal year-end filings. Seventy-four observations were deleted because they are non-10-K filings (including 10-K/A filings), such as 20-Fs and Def 14As. We deleted 403 observations with fiscal year-ends before June 30, 2019 that were not yet required to implement the CAM disclosure. We deleted also 100 non-large accelerated filers that were not required to file CAMs with their June 30 2019 year-end since this implementation only applied to large-accelerated filers. Within the group of non-large accelerated filers, not one firm chose to report CAMs before their required implementation date. The final sample yielded 58 firms with a fiscal year-end on or after June 30, 2019. Appendix A provides a list of the large accelerated filers included in the sample.

<table>
<thead>
<tr>
<th>Table 1: Sample Selection Criteria</th>
<th>No. of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial CalcBench 2019 FYR filings search yields</td>
<td>635</td>
</tr>
<tr>
<td>Delete non 10-K filings including 10-K/A</td>
<td>74</td>
</tr>
<tr>
<td>Delete filing with FYR before June 30, 2019</td>
<td>403</td>
</tr>
<tr>
<td>Delete non-large accelerated filers not required to disclose</td>
<td>100</td>
</tr>
<tr>
<td>Final Sample Size:</td>
<td>58</td>
</tr>
</tbody>
</table>

While examining the CAM disclosures for large accelerated filers provides some insight into what critical issues auditors are experiencing during their assessments at this time, it poses a limitation as to the generalizability of these findings

¹ The effective CAM disclosure implementation date for large accelerated filers is June 30.
² CalcBench was used since the Independent Auditor Reports are separately downloadable. [https://www.calcbench.com](https://www.calcbench.com)
to smaller firms, but should pose less of an issue for comparability with large accelerated and/or accelerated filers. Looking at large accelerated filers with primarily a June 30 fiscal year-end provides some insight into the types of disclosures that we might expect to see for CAMs with the up-coming December year-end filers. This provides some early evidence in the areas of the audit that appear to be more challenging than others.

Descriptive Statistics and Empirical Findings

Table 2 provides an industry distribution for the firms in the sample. There is an industry concentration in the manufacturing (51.7%) and services (32.8%) industries, both of which account for a combined total of 84.5 percent of the sample population. Each industry is a reflection of the type of business that would find a June 30 fiscal year-end to be optimal, rather than anything specifically about the financial condition of the company. Given that the sample only consists of large accelerated filers, the size of the firm should be in line with large accelerated filers with December fiscal year-ends.

Table 2: Industry Distribution

<table>
<thead>
<tr>
<th>SIC Code</th>
<th>Industry Name</th>
<th>Sample Firms</th>
<th>%-age</th>
</tr>
</thead>
<tbody>
<tr>
<td>100–0999</td>
<td>Agriculture, Forestry, and Fishing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1000–1499</td>
<td>Mining</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1500–1799</td>
<td>Construction</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1800–1999</td>
<td>not used</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2000–3999</td>
<td>Manufacturing</td>
<td>30</td>
<td>51.7</td>
</tr>
<tr>
<td>4000–4999</td>
<td>Transportation, Communications, Electric, Gas, and Sanitary Service</td>
<td>2</td>
<td>3.4</td>
</tr>
<tr>
<td>5000–5199</td>
<td>Wholesale Trade</td>
<td>3</td>
<td>5.2</td>
</tr>
<tr>
<td>5200–5999</td>
<td>Retail Trade</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6000–6799</td>
<td>Finance, Insurance, and Real Estate</td>
<td>4</td>
<td>6.9</td>
</tr>
<tr>
<td>7000–8999</td>
<td>Services</td>
<td>19</td>
<td>32.8</td>
</tr>
<tr>
<td>9100–9729</td>
<td>Public Administration</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9900–9999</td>
<td>Non-Classifiable</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>58</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 3 provides the types of critical audit matters that were disclosed by sample firms. All of the firms in our sample reported at least one or more CAMS. The number of reported CAMs ranged from zero to four, and only eight out of 58 (13.7%) of the sample firms reported three or four CAMs, with the remaining firms reporting only one or two CAMs. The average number of CAMs reported per firm was 1.74. The two most heavily reported CAMs were related to revenue recognition and intangibles/goodwill/impairment issues. While they each account for 24 percent of the sample, when combined, they account for almost half of the sample. A total of 57 percent (eight of 14) acquisition-related CAM disclosures were related to intangible assets, which means intangibles make up 32 percent of the total reported CAMs in the sample. Income taxes (e.g., deferred tax assets and uncertain income tax provisions) and acquisition-related CAMs followed with each accounting for 14 percent of total CAMs. The remaining types of CAM disclosures made up 6 percent or less of the total sample.

Table 3: Types of Critical Audit Matter Disclosures

<table>
<thead>
<tr>
<th>Types of CAM</th>
<th>No. of Obs.</th>
<th>% of Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>24</td>
<td>24%</td>
</tr>
<tr>
<td>Taxes – deferred tax assets/uncertain tax provisions</td>
<td>14</td>
<td>14%</td>
</tr>
<tr>
<td>Intangibles/Goodwill/Impairment</td>
<td>24</td>
<td>24%</td>
</tr>
<tr>
<td>Inventory</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Valuation of contingencies/obligations</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Related party transactions</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Acquisition</td>
<td>14</td>
<td>14%</td>
</tr>
<tr>
<td>Allowance for loan loss</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>101</strong></td>
<td></td>
</tr>
</tbody>
</table>

Average No. of CAMs Reported per Firm Disclosure: 1.74
Range of # of CAMs: 1 to 4
A CAM was listed as “Other” if that particular disclosure only appeared once in the sample. The ‘other’ types of disclosure were related to stock compensation, estimates, evaluation of implementation services, capitalized internal-use software, deferred financing costs, convertible notes, payables, product liability lawsuits, supplier incentives, investments, accounting for loan and lease loss, capitalized software costs, measurement of SKU rationalization reserves, reserves for distributor programs, restricted stock, allowance for loan loss, discontinued operations, and capitalization of direct labor costs.

Appendix B provides an excerpt of a CAM disclosure in the Independent Auditor’s Report. In this example, Standex International Corporation, a large accelerated filer with a June 30 fiscal year-end, identified two CAMs related to revenue recognition and goodwill impairment assessment. Other companies, like software giant Microsoft, identified two CAMs related to revenue recognition and uncertain income tax provisions. The only filer to report four CAMs was Catalent, Inc., a business with a focus on drug development, delivery and supply partners for drugs, biologics and consumer health products. Catalent reported CAMs related to measurement of uncertain tax positions and foreign tax credits, valuation of customer relationship intangible assets in an acquisition, fair value of derivative liability and revenue from contracts with customers. Revenue recognition and goodwill impairment assessment are among the two most cited critical areas noted during the audits for our sample firms. The auditors noted what the critical matters were, and then they described the audit procedures employed to sufficiently audit these accounts. The type of CAM disclosure with Standex was fairly consistent among the other sample firms in this study, where firms disclosed the type of CAM and then generally listed two or more audit procedures performed for each CAM noted.

Figure 1 provides an illustrative view of the types of critical audit matters by the challenging accounting issues that existed during the audit.

Table 4 presents the number of CAMs by audit firms. Big Four audit firms accounted for 88 percent of the sampled companies. This result is not surprising due to these firms being large-accelerated filers. PWC reported the least number of CAMs on average (1.25 CAMs) per filer. They reported one CAM in the majority of their independent audit reports. Slightly more than half (53%) of the CAMs were related to intangibles (which included three acquisition-related CAMs) with the remaining CAMs pretty equal between revenue recognition, taxes and other. Ernst & Young reported the most CAMs on average (2.5 CAMs) per filer. Intangibles (31%), revenue recognition (26%) and other (23%) made up the bulk of the reported CAMs. The remaining six CAMs were related to taxes and acquisitions.

Ernst & Young also reported many more ‘other’ CAMs along with the two types identified as the primary CAMs disclosed overall (revenue recognition and intangibles). Of the four non-Big Four independent audit report observations in the sample, three of them reported only one CAM and the fourth reported two CAMs. They seem to be reporting the least number of CAMs followed by PWC. Overall, the firms within industry were pretty diverse except for the transportation,
communications, electric, gas, and sanitary service industry (4000–4999), which were all audited by KPMG (untabulated). However, there are only two firms in that industry for our sampled companies.

Table 4: Number of Critical Audit Matter Disclosures by Audit Firms

<table>
<thead>
<tr>
<th>Audit Firm</th>
<th># of Reports</th>
<th>Avg. # of CAMs Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDO</td>
<td>3</td>
<td>1.67</td>
</tr>
<tr>
<td>Crowe</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Deloitte</td>
<td>12</td>
<td>1.58</td>
</tr>
<tr>
<td>Ernst &amp; Young</td>
<td>14</td>
<td>2.5</td>
</tr>
<tr>
<td>Grant Thornton</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>KPMG</td>
<td>13</td>
<td>1.69</td>
</tr>
<tr>
<td>Moss Adams</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PWC</td>
<td>12</td>
<td>1.25</td>
</tr>
<tr>
<td>Big 4:</td>
<td>51</td>
<td>87.9%</td>
</tr>
<tr>
<td>Non-Big 4:</td>
<td>7</td>
<td>12.1%</td>
</tr>
</tbody>
</table>

Summary and Conclusion

While this study mostly focuses on large accelerated filers with June 30 fiscal year-ends, its results provide some insights into what CAM topic areas we are more likely to see with 2019 December year-end firms, and with 2020 year-end firms that are both large and non-large accelerated filers that were previously not required to report CAMs in 2019. For these large accelerated filers, 100 percent of these firms reported at least one CAM, the average number of CAMs disclosed per firm was 1.74 with a range of one to four CAMs disclosed per firm, and auditors were more likely to disclose CAMs related to revenue recognition, intangibles, deferred tax assets, and acquisitions.

These results give auditors a general idea of some of the more challenging and complex areas that auditors were experiencing during the annual audit of these firms. The audit firms (and their clients) in similar type firms may want to employ additional resources specifically in the areas of revenue recognition, identifiable intangible assets, deferred tax assets, and acquisitions to help head off some of these known issues that might generalize to their audits as well. The managers of these firms may also want to follow suit and focus internal efforts on firming up their accounting and internal controls in these four areas.

This study has limitations posed by the sample selection criteria. While this study provides an early outlook on CAM disclosures for large accelerated filers with June 30, 2019 year-ends, it is possible that this trend in CAM disclosures will not be consistent with December year-end firms or with non-large accelerated filers that will implement the disclosure with their 2020 year-end financial reporting. Given that this sample is clustered by industry, it is possible that CAM disclosures will also vary by industry as more firms in other industries implement this requirement. For example, retail firms with typically a January 31 year-end may report CAMs that differ from the industries noted in this study. However, this study is intended to shed some light on the first adopters of the CAM disclosure requirement that may provide some insights to firms that will implement the requirement with a 2019 December year-end or a 2020 implementation.
Future research could examine whether CAMs impact the market and investors’ investment decisions, as well as management’s decisions on auditors. For example, examining 350 U.S. audit firms, a recent study by Cowle and Rowe (2019) found that audit firms, on average, suffer a drop in future client growth and revenue growth after detecting a material weakness in a company’s financial reporting. They state that companies avoiding diligent audit firms could have a detrimental impact on investors’ access to relevant company information. Cowle and Rowe’s (2019) findings could hold true for audit firms who issue what is deemed too many CAMs. Since Ernst and Young reported more CAMs than any other audit firms, it will be interesting to see if they suffer a decline in future client growth and revenue similar to what occurred in Cowle and Rowe (2019) after detecting material weaknesses in companies’ financial reporting. The PCAOB inspection should consider some additional procedures to evaluate whether CAMs were sufficiently disclosed to avoid such a problem in the future. After all, if the behavior noted in Cowle and Rowe (2019) transpires from the CAM requirement, then the primary objective of this new requirement will have been somewhat ineffective.

Prior experimentally based studies have provided conflicting results as to whether CAM disclosures would increase auditor liability risk for audit firms. Backof, Bowlin, and Goodson (2014) find no direct relationship between related CAMs and auditor liability. Kachelmeier, Schmidt, and Valentine (2014); Brown, Majors, and Peecher (2015); and Brasel, Doxey, Grenier, and Reffett (2016) all found that auditor liability is reduced when a related CAM is disclosed; while Gimbar, Hansen, and Ozlanski (2016) found that auditor liability is increased when imprecise standards like CAMs reduce the extent to which jurors perceive that the auditors are not constrained like they are with more precise standards. Another avenue for future research, once data becomes more readily available, would be to see whether auditors’ liability risks have shifted as a result of the new CAM disclosure requirement.

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3 Keeping in mind that the distribution in the number of CAMs reported by firm and/or by audit firm may change as more firms implement the CAM requirement, this statement is noted to say that an audit firm(s) that reports more CAMs on average may be subject to the same negative consequences noted by Cowle and Rowe (2019) as CAMs may relate to internal control weaknesses.
Appendix A

List of Large Accelerated Filers in the Sample

Adtalem Global Education, Inc.
Applied Industrial Technologies, Inc.
Aspen Technology, Inc.
Automatic Data Processing, Inc.
Axos Financial, Inc.
BIO-TECHNE Corp.
Bottomline Technologies, Inc.
Brady Corp.
Briggs & Stratton Corp.
Broadridge Financial Solutions, Inc.
Caci International, Inc.
Cardinal Health, Inc.
Cardiovascular Systems, Inc.
Carpenter Technology Corp.
Catalent, Inc.
CDK Global, Inc.
Cimpress N.V.
Cisco Systems, Inc.
Clorox Co.
Coty, Inc.
Cree, Inc.
Estée Lauder Companies, Inc.
Extreme Networks, Inc.
Hain Celestial Group, Inc.
Ii-Vi, Inc.
Intuit, Inc.
K12, Inc.
Kearney Financial Corp.
Kennametal, Inc.
Kla Corp.
Lam Research Corp.
Lancaster Colony Corp.
Madison Square Garden Co.
Malibu Boats, Inc.
Mercury Systems, Inc.
Meredith Corp.
Microsoft Corp.
Msg Networks, Inc.
Myriad Genetics, Inc.
News Corp.
Nutanix, Inc.
Open Text Corp.
Oritani Financial Corp.
Osi Systems, Inc.
Palo Alto Networks, Inc.
Parker Hannifin Corp.
Paylocity Holding Corp.
Premier, Inc.
PROCTER & GAMBLE Co.
Quinstreet, Inc.
Regis Corp.
Royal Gold, Inc.
Scansource, Inc.
Standex International Corp.
Ubiquiti, Inc.
Zayo Group Holdings, Inc.
Zscaler, Inc.
Excerpt of a CAM Disclosure within an Independent Auditor’s Report for Standex International Corp with Fiscal Year-ended June 30, 2019

Report of Independent Registered Public Accounting Firm

Board of Directors and Shareholders

Standex International Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Standex International Corporation (a Delaware corporation) and subsidiaries (the “Company”) as of June 30, 2019 and 2018, the related consolidated statements of comprehensive income, changes in stockholders’ equity, and cash flows for each of the three years in the period ended June 30, 2019, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of June 30, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 2019, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of June 30, 2019, based on criteria established in the 2013 Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated August 27, 2019 expressed an unqualified opinion.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition—Revenue Recognized Over Time

As described in Notes 1 and 3 to the consolidated financial statements, the Company’s revenue that is recognized over time was $32 million for the year ended June 30, 2019. For these transactions, revenue is recognized over time based on cost incurred to date as a percentage of total estimated cost. We identified revenue recognized over time as a critical audit matter.

The principal considerations for our determination that this matter is a critical audit matter are as follows. Accounting for these transactions requires the Company to monitor customer contracts to determine the expected costs to be incurred to satisfy the related performance obligation. Management’s determination of these expected costs involves estimation and...
subjectivity, which, in turn, involved complexity and auditor subjectivity in evaluating management’s estimates and obtaining sufficient appropriate audit evidence related to such estimates.

Our audit procedures related to revenue recognized over time included the following, among others.

- We tested the operating effectiveness of controls relating to management’s development and ongoing evaluation of each contract’s expected cost.

- For a sample of transactions, we inspected the customer contract and evaluated assumptions used by management in determining the contract’s estimated expected cost in order to fulfill the performance obligation under the contract. This included comparing planned costs to actual costs incurred to date based on management’s original assumptions and corroborating management’s assumptions with company engineers assigned to the contract.

- For a sample of transactions, we evaluated whether the assumptions surrounding the expected costs to be incurred were reasonable by testing management’s historical ability to estimate. This included comparing actual costs incurred on completed contracts to management’s original assumptions and assumptions throughout the

Goodwill Impairment Assessment

As described in Notes 1 and 6 to the consolidated financial statements, the Company’s consolidated goodwill balance was $282 million at June 30, 2019, which is allocated to the Company’s nine reporting units. Goodwill is tested for impairment at least annually at the reporting unit level. We identified the Company’s goodwill impairment assessment of certain reporting units as a critical audit matter.

The principal considerations for our determination that this matter is a critical audit matter are as follows. The determination of the fair value of reporting units requires management to make significant estimates and assumptions related to forecasts of future cash flows and discount rates. This requires management to evaluate historical results and expectations of future operating performance based on relevant information available to them regarding expectations of industry performance as well as expectations for entity-specific performance. In addition, determining the discount rate requires management to evaluate the appropriate risk premium based on their judgment of industry and entity-specific risks. As disclosed by management, changes in these assumptions could have a significant impact on either the fair value of the reporting units, the amount of any goodwill impairment charge, or both. In turn, auditing management’s judgments regarding forecasts of future cash flows and the discount rate to be applied involved a high degree of auditor subjectivity.

Our audit procedures related to the Company’s goodwill impairment assessment of certain reporting units included the following, among others.

- We tested the design and operating effectiveness of controls relating to management’s goodwill impairment tests, including controls over the determination of key inputs such as the forecasting of future cash flows and determination of the discount rate.

- We compared management’s forecasts of future revenue and operating margin to third-party industry projections, historical operating results, and past projections.

- We evaluated management’s historical ability to achieve forecasted revenue and operating margins.

- We performed sensitivity analysis on the Company’s future revenue and operating margins to evaluate the reasonableness of management’s forecasts.

- We utilized a valuation specialist to assist in recalculating the Company’s discounted cash flow model and in evaluating the reasonableness of significant assumptions to the model, including the discount rate.
References


Kachelmeir, S. J. Schmidt, and K. Valentine. 2014. The effect of disclosing critical audit matters in the auditor's report on perceived auditor responsibility for misstatements, working paper, University of Texas at Austin.