2018 Inspection
Marcum LLP

(Headquartered in Melville, New York)

August 5, 2020

PCAOB
Public Company Accounting Oversight Board

THIS IS A PUBLIC VERSION OF A PCAOB INSPECTION REPORT

PORTIONS OF THE COMPLETE REPORT ARE OMITTED FROM THIS DOCUMENT IN ORDER TO COMPLY WITH SECTIONS 104(g)(2) AND 105(b)(5)(A) OF THE SARBANES-OXLEY ACT OF 2002

PCAOB RELEASE NO. 104-2020-016A
(Includes portions of Part II of the full report that were not included in PCAOB Release No. 104-2020-016)

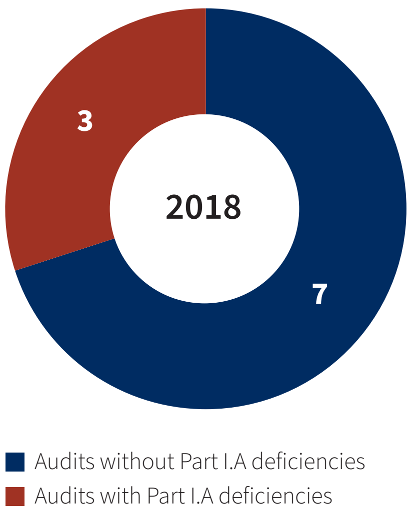
Executive Summary

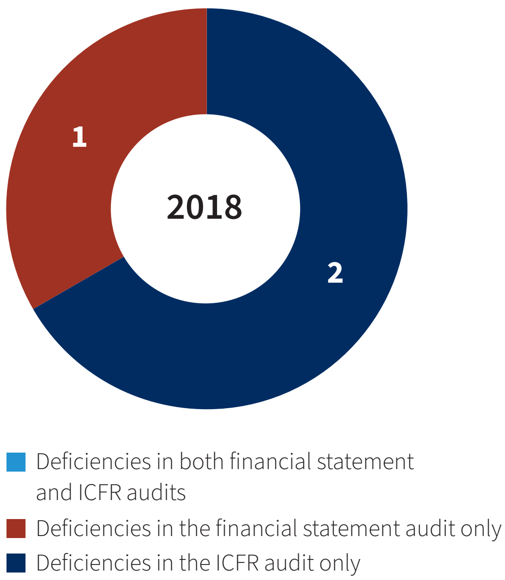
Our 2018 inspection report on Marcum LLP provides information on our inspection to assess the firm's compliance with Public Company Accounting Oversight Board ("PCAOB") standards and rules and other applicable regulatory and professional requirements. This executive summary offers a high-level overview of: (1) Part I.A of the report, which discusses deficiencies ("Part I.A deficiencies") in certain issuer audits that were of such significance that we believe the firm, at the time it issued its audit report(s), had not obtained sufficient appropriate audit evidence to support its opinion on the issuer's financial statements and/or internal control over financial reporting ("ICFR"), and (2) Part I.B of the report, which discusses deficiencies that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules.

The fact that we have included a deficiency in this report — other than those deficiencies for audits with incorrect opinions on the financial statements and/or ICFR — does not necessarily mean that the issuer's financial statements are materially misstated or that undisclosed material weaknesses in ICFR exist. If a deficiency is included in Part I.A or Part I.B of this report, it does not necessarily mean that the firm has not addressed the deficiency.

Overview of the 2018 Deficiencies Included in Part I

Three of the 10 issuer audits we reviewed in 2018 are included in Part I.A of this report due to the significance of the deficiencies identified. The identified deficiencies related to the firm's testing of controls over and/or substantive testing of revenue and related accounts, income taxes, investment securities, and business combinations.





The Part I.A deficiencies in 2018 related to testing the design or operating effectiveness of controls selected for testing, identifying and testing controls related to a significant account or relevant assertion, evaluating control deficiencies, and testing the accuracy and completeness of data or reports used in substantive testing.

In the 2018 inspection, we did not identify any Part I.B deficiencies related to other instances of non-compliance with PCAOB standards or rules.

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2018 Inspection

During the PCAOB's 2018 inspection of Marcum LLP, we assessed the firm's compliance with laws, rules, and professional standards applicable to the audits of public companies.

We selected for review 10 audits of issuers with fiscal years generally ending in 2017. For each issuer audit selected, we reviewed a portion of the audit. We also evaluated elements of the firm's system of quality control.

What's Included in this Inspection Report

This report includes the following sections:

- **Overview of the 2018 Inspection and Historical Data by Inspection Year:** Information on our inspection, historical data, and common deficiencies.
- **Part I – Inspection Observations:**
  - Part I.A: Deficiencies that were of such significance that we believe the firm, at the time it issued its audit report(s), had not obtained sufficient appropriate audit evidence to support its opinion on the issuer's financial statements and/or ICFR.
  - Part I.B: Deficiencies that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules.
- **Part II – Observations Related to Quality Control:** Criticisms of, or potential defects in, the firm's system of quality control. Section 104(g)(2) of the Sarbanes-Oxley Act ("the Act") restricts us from publicly disclosing Part II deficiencies unless the firm does not address the criticisms or potential defects to the Board's satisfaction no later than 12 months after the issuance of this report.
- **Appendix A – Firm's Response to the Draft Inspection Report:** The firm's response to a draft of this report, excluding any portion granted confidential treatment.

2018 Inspection Approach

In selecting issuer audits for review, we use a risk-based method of selection. We make selections based on (1) our internal evaluation of audits we believe have a heightened risk of material misstatement, including those with challenging audit areas, and (2) other risk-based characteristics, including issuer and firm considerations.

When we review an audit, we do not review every aspect of the audit. Rather, we generally focus our attention on audit areas we believe to be of greater complexity, areas of greater significance or with a heightened risk of material misstatement to the issuer's financial statements, and areas of recurring deficiencies. We may also select some audit areas for review in a manner designed to incorporate unpredictability.

Our selection of audits for review does not constitute a representative sample of the firm's total population of issuer audits. Additionally, our inspection findings are specific to the particular portions of the issuer audits reviewed. They are not an assessment of all of the firm's audit work nor of all of the audit procedures performed for the audits reviewed.

View the details on the scope of our inspections and our inspections procedures.

Overview of the 2018 Inspection and Historical Data by Inspection Year

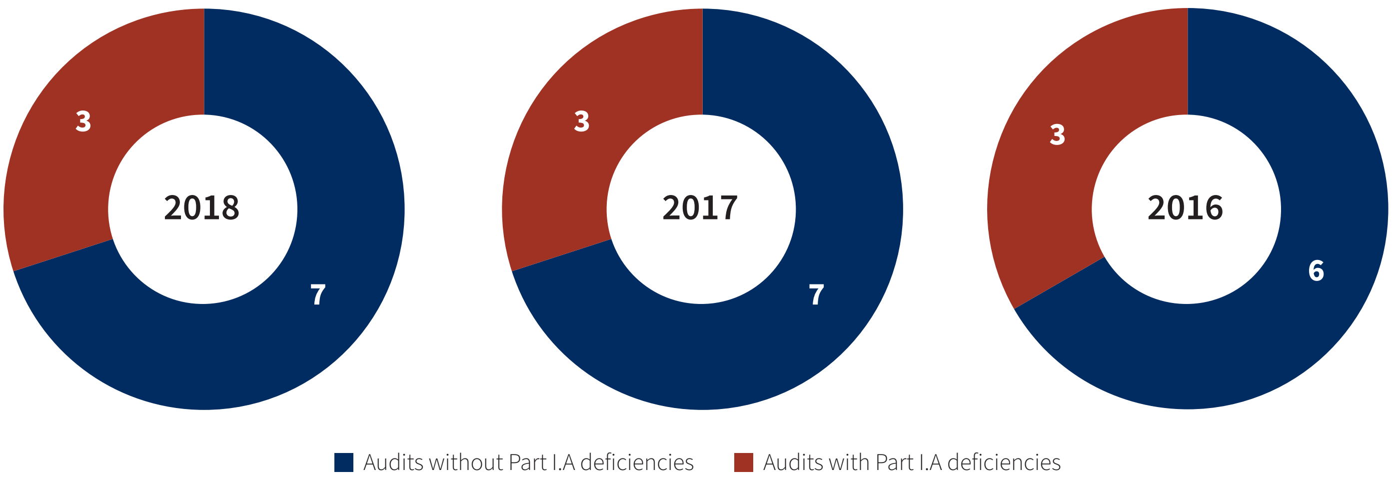
The following information provides an overview of our inspections in 2018 of the firm's issuer audits as well as data from the previous two inspections. We use a risk-based method to select audits for review and to identify areas on which we focus our inspection. Because our inspection process evolves over time, it can, and often does, focus on a different mix of audits and focus areas from year to year and firm to firm. As a result of this variation, we caution that our inspection results are not necessarily comparable over time or among firms.

Audits Reviewed

	2018	2017	2016
Total audits reviewed	10	10	9
Audits in which the firm was the principal auditor	10	10	9
Integrated audits of financial statements and ICFR	3	4	5
Risk-based selections	10	10	9

Part I.A Deficiencies in Audits Reviewed

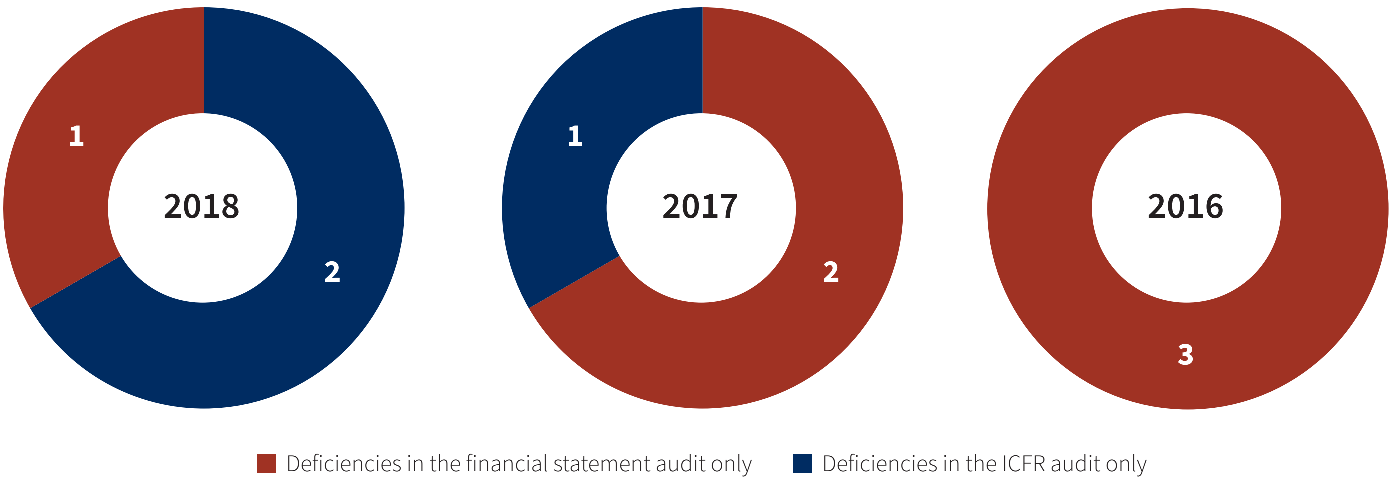
All audits appearing in Part I.A in 2018, 2017, and 2016 were selected for review using risk-based criteria.



If a deficiency is included in Part I.A of our report, it does not necessarily mean that the firm has not addressed the deficiency. In many cases, the firm has performed remedial actions after the issue was identified. Depending on the circumstances, remedial actions may include performing additional audit procedures, informing management of the issuer of the need for changes to the financial statements or reporting on ICFR, or taking steps to prevent reliance on prior audit reports. Our inspection normally includes a review, on a sample basis, of the adequacy of a firm's remedial actions, either with respect to previously identified deficiencies or deficiencies identified during that inspection. If a firm does not take appropriate actions to address deficiencies, we may criticize its system of quality control or pursue a disciplinary action.

The fact that we have included a deficiency in our report — other than those deficiencies for audits with incorrect opinions on the financial statements and/or ICFR — does not necessarily mean that the issuer's financial statements are materially misstated or that undisclosed material weaknesses in ICFR exist. It is often not possible for us to reach a conclusion on those points based on our inspection procedures and related findings because, for example, we have only the information that the auditor retained and the issuer's public disclosures. We do not have direct access to the issuer's management, underlying books and records, and other information.

Audits Affected by the Deficiencies Identified in Part I.A



The following tables and graphs summarize inspection-related information, by inspection year, for 2018 and the previous two inspections. We caution any comparison of the data provided without reading the descriptions of the underlying deficiencies in each respective inspection report.

Most Frequently Identified Part I.A Deficiencies

Deficiencies in audits of financial statements	Audits with Part I.A deficiencies		
	2018	2017	2016
Did not perform sufficient testing of the accuracy and completeness of data and reports used in the firm's substantive testing	1	1	1

Deficiencies in ICFR audits	Audits with Part I.A deficiencies		
	2018	2017	2016
Did not perform sufficient testing of the design and/or operating effectiveness of controls selected for testing	2	0	0
Did not identify and test any controls related to a significant account or relevant assertion	1	1	0
Did not appropriately evaluate control deficiencies	1	0	0

Audit Areas Most Frequently Reviewed

This table reflects the four focus areas we have selected most frequently for review in each inspection year (and the related Part I.A deficiencies). For the issuer audits selected for review, we selected these areas because they were generally significant to the issuer's financial statements, may have included complex issues for auditors, and/or involved complex judgments in (1) estimating and auditing the reported value of related accounts and disclosures and (2) implementing and auditing the related controls.

2018			2017			2016		
Audit area	Audits reviewed	Audits with Part I.A deficiencies	Audit area	Audits reviewed	Audits with Part I.A deficiencies	Audit area	Audits reviewed	Audits with Part I.A deficiencies
Revenue and related accounts	8	3	**Revenue and related accounts**	8	2	**Revenue and related accounts**	8	1
Business combinations	3	1	**Equity and equity-related transactions**	3	1	**Cash and cash equivalents**	5	0
Income taxes	2	1	**Business combinations**	2	0	**Inventory**	3	0
Investment securities	2	1	**Income taxes**	1	0	**Going concern**	2	1

Audit Areas with Frequent Part I.A Deficiencies

This table reflects the focus areas with the most frequently identified Part I.A deficiencies in each inspection year with the corresponding results for the other two years presented.

Audit area	2018		2017		2016	
	Audits with Part I.A deficiencies	Audits reviewed	Audits with Part I.A deficiencies	Audits reviewed	Audits with Part I.A deficiencies	Audits reviewed
Revenue and related accounts	3	8	2	8	1	8
Business combinations	1	3	0	2	0	2
Income taxes	1	2	0	1	0	0
Investment securities	1	2	0	0	0	0
Equity and equity-related transactions	0	2	1	3	0	2
Going concern	0	0	0	1	1	2
Loans and related accounts	0	0	0	0	1	1

Revenue and related accounts: The deficiencies in 2018, 2017, and 2016 related to testing the accuracy and completeness of data or reports used in substantive testing and testing controls over revenue.

Business combinations: The deficiency in 2018 related to testing controls over the valuation of assets acquired and liabilities assumed.

Income taxes: The deficiencies in 2018 related to testing controls over income tax provisions and tax returns.

Investment securities: The deficiencies in 2018 related to testing controls over the valuation and existence of investment securities.

Equity and equity-related transactions: The deficiencies in 2017 related to evaluating the accounting for equity instruments and evaluating assumptions that the issuer used in developing an estimate.

Going concern: The deficiency in 2016 related to evaluating assumptions used in the issuer's cash flow projections.

Loans and related accounts: The deficiencies in 2016 related to substantive testing of loan receivables.

Auditing Standards Associated with Identified Part I.A Deficiencies

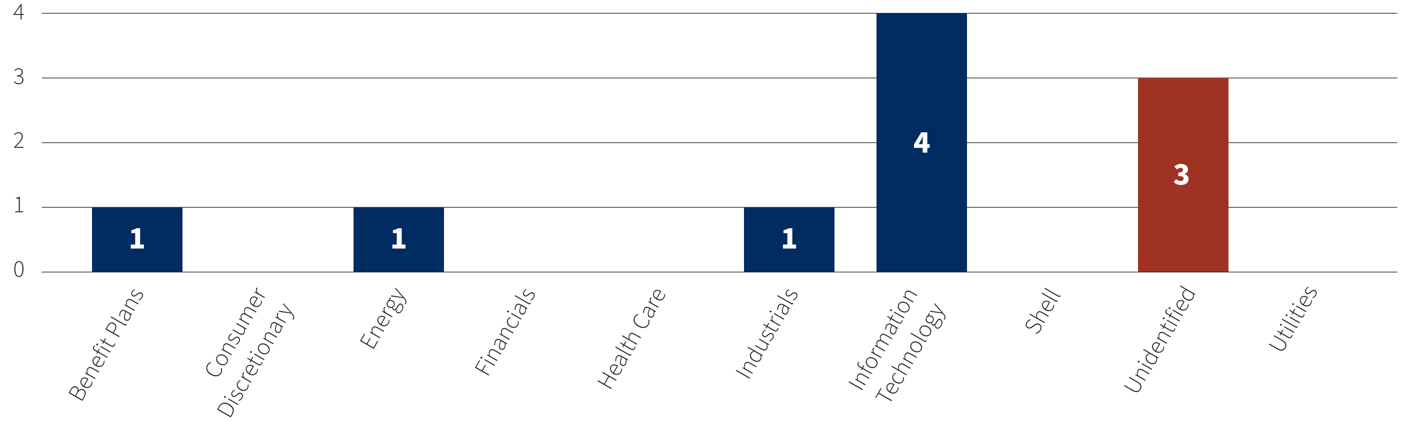
The following lists the auditing standards referenced in Part I.A of the 2018 and the previous two inspection reports and the number of times that the standard is cited in Part I.A.

PCAOB Auditing Standards	2018	2017	2016
AS 1105, ***Audit Evidence***	1	1	2
AS 2201, ***An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements***	13	1	0
AS 2301, ***The Auditor's Responses to the Risks of Material Misstatement***	0	2	2
AS 2310, ***The Confirmation Process***	1	0	2
AS 2415, ***Consideration of an Entity's Ability to Continue as a Going Concern***	0	0	1
AS 2502, ***Auditing Fair Value Measurements and Disclosures***	0	1	0
AS 2810, ***Evaluating Audit Results***	0	1	0

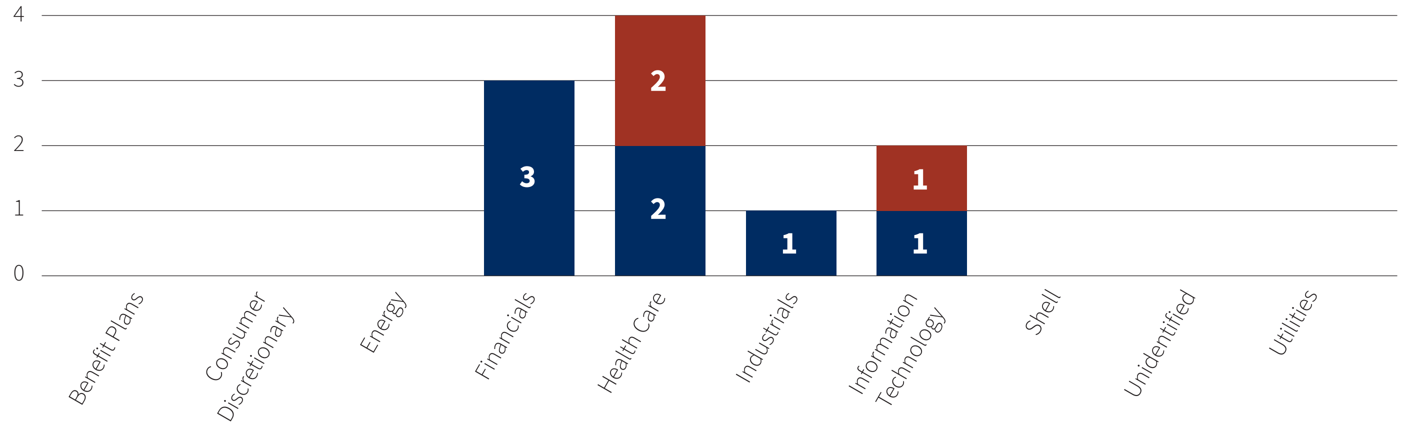
Inspection Results by Issuer Industry Sector

The majority of industry sector data is based on Global Industry Classification Standard ("GICS") data obtained from Standard & Poor's ("S&P"). In instances where GICS for an issuer is not available from S&P, classifications are assigned based upon North American Industry Classification System data.

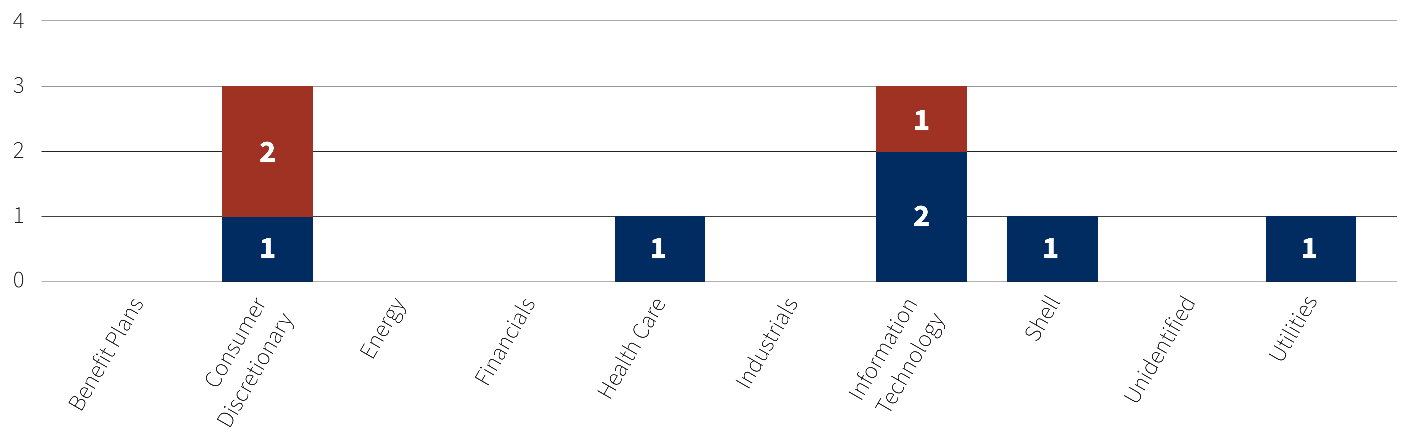
2018



2017



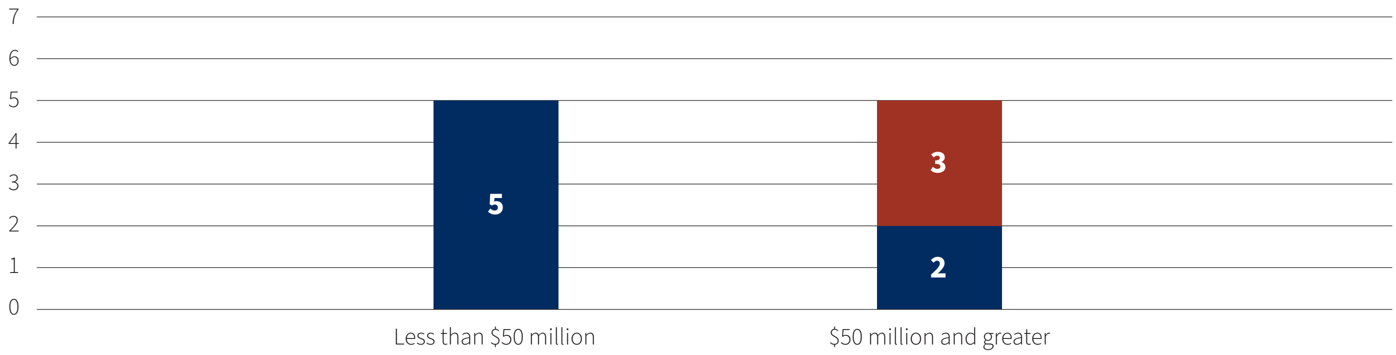
2016



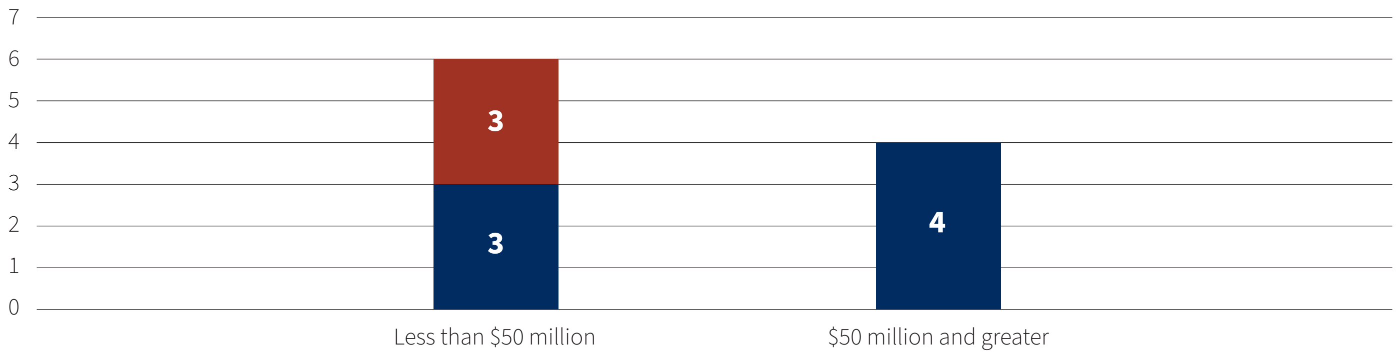
Audits without Part I.A deficiencies
Audits with Part I.A deficiencies

Inspection Results by Issuer Revenue Range

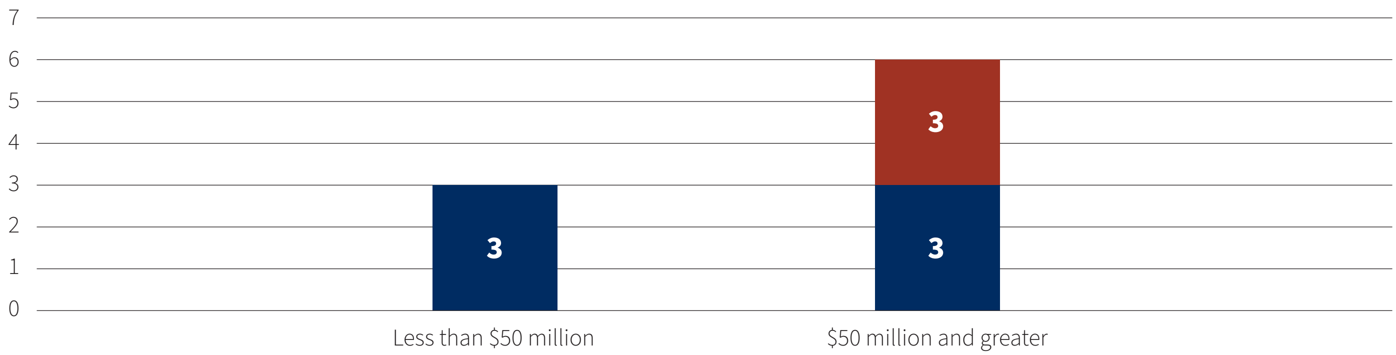
2018



2017



2016



Audits without Part I.A deficiencies   Audits with Part I.A deficiencies

Classification of Audits with Part I.A Deficiencies

Within Part I.A of this report, we classify each issuer audit in one of the categories discussed below based on the Part I.A deficiency or deficiencies identified in our review.

The sole purpose of this classification system is to group and present issuer audits by the number of Part I.A deficiencies we identified within the audit as well as to highlight audits with an incorrect opinion on the financial statements and/or ICFR.

Audits with an Incorrect Opinion on the Financial Statements and/or ICFR

This classification includes instances where an audit deficiency was identified in connection with our inspection and, as a result, an issuer's financial statements were determined to be materially misstated, and the issuer restated its financial statements. It also includes instances where an audit deficiency was identified in connection with our inspection and, as a result, an issuer's ICFR was determined to be ineffective, or there were additional material weaknesses that the firm did not identify, and the firm withdrew its opinion, or modified its report, on ICFR.

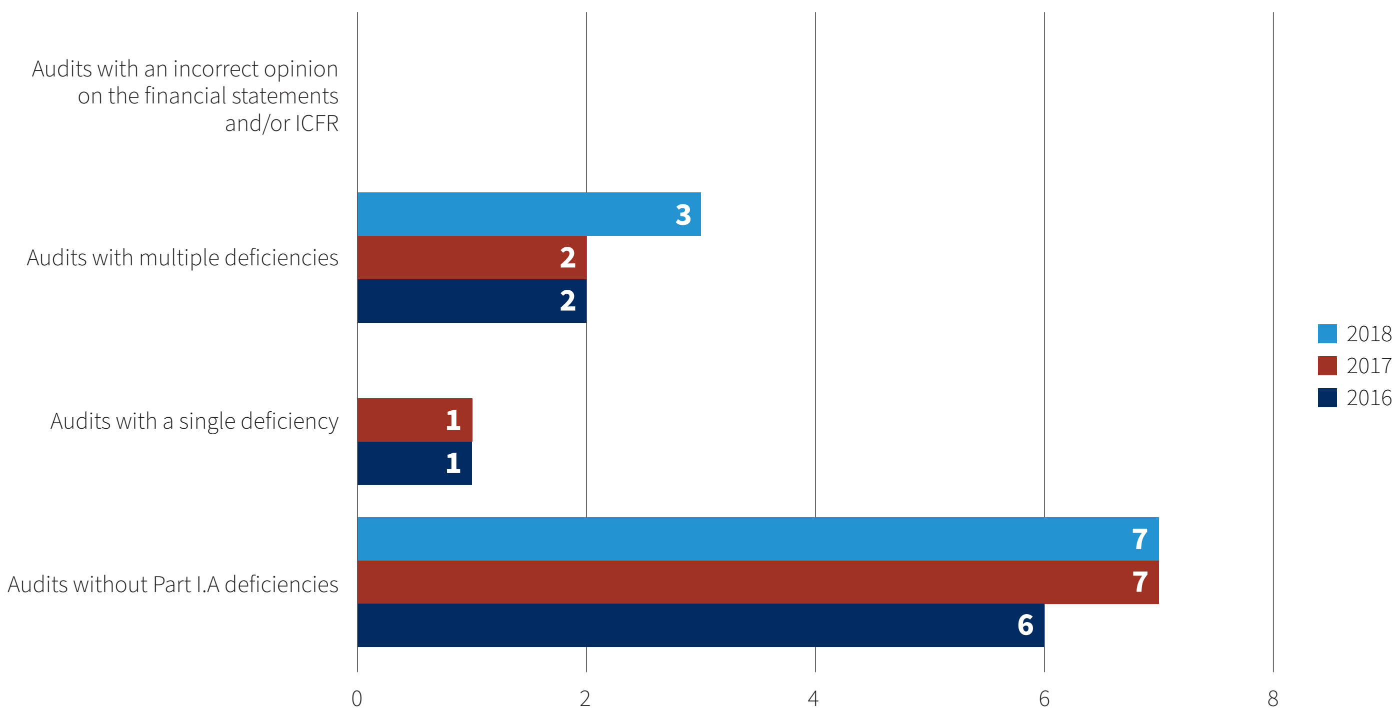
Audits with Multiple Deficiencies

This classification includes instances where multiple deficiencies were identified that related to a combination of one or more financial statement accounts, disclosures, and/or important controls in an ICFR audit.

Audits with a Single Deficiency

This classification includes instances where a single deficiency was identified that related to a financial statement account or disclosure or to an important control in an ICFR audit.

Number of Audits in Each Category



Part I: Inspection Observations

Part I.A of our report discusses deficiencies that were of such significance that we believe the firm, at the time it issued its audit report(s), had not obtained sufficient appropriate audit evidence to support its opinion on the issuer's financial statements and/or ICFR. Part I.B discusses deficiencies that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules. Consistent with the Act, it is the Board's assessment that nothing in Part I of this report deals with a criticism of or potential defect in the firm's quality control system. Any such criticisms or potential defects are discussed in Part II. Further, you should not infer from any Part I deficiency or combination of deficiencies that a quality control finding is identified in Part II.

Part I.A: Audits with Unsupported Opinions

This section of our report discusses the deficiencies identified, by specific issuer audit reviewed, in the audit work supporting the firm's opinion on the issuer's financial statements and/or ICFR.

We identify each issuer by a letter (e.g., Issuer A). Each deficiency could relate to several auditing standards, but we reference the PCAOB standard(s) that most directly relates to the requirement with which the firm did not comply.

Issuer audits are presented below within their respective deficiency classifications (as discussed previously). Within the classifications, we generally present the audits based on our assessment as to the relative significance of the identified deficiencies taking into account the significance of the financial statement accounts and/or disclosures affected, and/or the nature or extent of the deficiencies.

Audits with an Incorrect Opinion on the Financial Statements and/or ICFR

None

Audits with Multiple Deficiencies

Issuer A

Type of audit and related areas affected

In our review, we identified deficiencies in the ICFR audit related to **Revenue**, **Accounts Receivable**, **Business Combinations**, and **Investments**.

Description of the deficiencies identified

With respect to **Revenue** and **Accounts Receivable**:

The firm did not perform sufficient procedures to obtain the necessary understanding of the flow of transactions within the revenue and accounts receivable transaction cycles, including the effect of the issuer's information technology ("IT") systems, to identify the likely sources of potential misstatements. (AS 2201.34 and .36)

The firm selected for testing multiple controls over user access to various applications. The firm did not evaluate the procedures that the control owners performed, including the criteria that the control owners used to create, edit, and maintain the security roles within these applications. (AS 2201.42 and .44)

The firm selected for testing a number of automated application controls related to processing revenue transactions and performing database reconciliations. For certain of these controls, the firm did not sufficiently test the design effectiveness of the controls because it did not determine whether items that met the issuer's established criteria would be properly investigated and resolved. (AS 2201.42) For the other controls, the firm did not perform any procedures to test the design effectiveness of the controls. (AS 2201.42)

The firm selected for testing controls that consisted of the issuer's review of revenue transactions and accounts receivable and the related reserve. The firm did not evaluate the review procedures that the control owners performed, including the criteria that the control owners used to identify items for follow up and whether those items were appropriately resolved. (AS 2201.42 and .44)

The firm identified a control deficiency for a control related to the approval of new customers. The firm did not sufficiently evaluate the severity of the control deficiency because it did not identify that the compensating controls it selected for testing did not address the risk of material misstatement related to customers who were not approved. (AS 2201.68)

With respect to **Business Combinations**:

During the year, the issuer acquired multiple businesses and used an external specialist to determine the fair values of the assets acquired and the liabilities assumed. The firm selected for testing a control that consisted of the issuer's review of the external specialist's valuation report. The firm did not evaluate the review procedures that the control owner performed, including the criteria that the control owner used to identify items for follow up and whether those items were appropriately resolved. (AS 2201.42 and .44)

With respect to **Investments**:

The issuer used two service organizations to initiate and process investment transactions. The firm did not identify and test any of the complementary user controls over the existence of investments. (AS 2201.B22) In addition, the firm did not identify and test any controls over the valuation of investments. (AS 2201.39)

Issuer B

Type of audit and related areas affected

In our review, we identified deficiencies in the ICFR audit related to **Revenue** and **Income Taxes**.

Description of the deficiencies identified

With respect to **Revenue**:

The firm selected for testing a control over the timing of revenue recognition. The firm, however, did not directly test the control because its procedures, which consisted of determining that revenue was not recorded before goods were shipped for a sample of transactions, were substantive in nature. (AS 2201.B9) In addition, the firm selected for testing a control that consisted of management's review of revenue, including deferred revenue, and the related journal entries. The firm did not evaluate the review procedures that the control owner performed, including the criteria that the control owner used to identify items for follow up and whether those items were appropriately resolved. (AS 2201.42 and .44)

With respect to **Income Taxes**:

The firm selected for testing controls that consisted of management's review of income tax provisions and tax returns. The firm did not evaluate the review procedures that the control owners performed, including the criteria that the control owners used to identify items for follow up and whether those items were appropriately resolved. (AS 2201.42 and .44) In addition, the firm did not identify and test any controls over the accuracy and completeness of the information used in the performance of these controls. (AS 2201.39)

Issuer C

Type of audit and related area affected

In our review, we identified deficiencies in the financial statement audit related to **Revenue**.

Description of the deficiencies identified

The issuer recorded revenue when a user action in an electronic environment occurred and the revenue recognition criteria had been met. The issuer used an IT application to track user actions, define and capture valid billable user actions, and generate user activity reports.

The firm tested IT general controls ("ITGCs") and identified control deficiencies related to this IT application and the general ledger. The firm concluded either that the deficiencies were mitigated by other controls or that the deficiencies did not directly affect the firm's reliance on the issuer's controls over the accuracy and completeness of the data derived from the IT application.

To test the accuracy and completeness of the reports the firm used in its substantive testing of revenue, the firm (1) relied on its testing of ITGCs and application controls over revenue and (2) confirmed user activity with customers.

The firm's reliance on these ITGCs and application controls was not supported because the firm did not sufficiently test the application controls used by the issuer to (1) track user actions, (2) capture billable user actions, and (3) generate the user activity reports used to calculate revenue because the firm did not consider the criteria necessary for valid user actions to occur, how user actions were counted and accumulated, and whether revenue recognition requirements were met. The firm also did not test compensating controls that mitigated the identified ITGC deficiencies and did not perform an evaluation to support its conclusion that those deficiencies did not affect its reliance on controls in the IT application. (AS 1105.10) In addition, the firm's confirmation procedures were not sufficient because the firm did not consider whether the issuer's customers would have the information necessary to confirm the user activity. (AS 2310.26)

Audits with a Single Deficiency

None

Part I.B: Other Instances of Non-Compliance with PCAOB Standards or Rules

In the 2018 inspection, we did not identify any deficiencies related to other instances of non-compliance with PCAOB standards or rules.

Part II: Observations Related To Quality Control

Part II of our report discusses criticisms of, and potential defects in, the firm's system of quality control.

Deficiencies are included in Part II if an analysis of the inspection results, including the results of the reviews of individual audits, indicates that the firm's system of quality control does not provide reasonable assurance that firm personnel will comply with applicable professional standards and requirements. Generally, the report's description of quality control criticisms is based on observations from our inspection procedures.

Any changes or improvements to its system of quality control that the firm may have brought to the Board's attention may not be reflected in this report, but are taken into account during the Board's assessment of whether the firm has satisfactorily addressed the quality control criticisms or defects no later than 12 months after the issuance of this report.

Criticisms of, and potential defects in, the firm's system of quality control, to the extent any are identified, are nonpublic when the reports are issued. If a firm does not address to the Board's satisfaction any criticism of, or potential defect in, the firm's system of quality control within 12 months after the issuance of our report, any such deficiency will be made public.

Testing Controls

The inspection results indicate that the firm's system of quality control does not provide reasonable assurance that the work performed by the firm's personnel with respect to testing controls will meet the requirements of * * * * AS 2201 and AS 2301. (QC 20.03 and .17)

In two audits,[1] both of which are included in Part I.A, the inspection team identified deficiencies related to the firm's testing of controls in an ICFR audit.

* * * *

Engagement Quality Review

The inspection results indicate that the firm's system of quality control does not provide reasonable assurance that the review procedures performed by the engagement quality review ("EQR") partners will meet the requirements of AS 1220. (QC 20.03 and .17)

In three audits,[2] all of which are included in Part I.A, the inspection team identified one or more audit deficiencies in an area that the EQR partner was required to evaluate. In all of these audits, the EQR partner did not identify and appropriately address a deficiency in an area of significant risk, including in some cases a fraud risk.

1 Issuers A and B

2 Issuers A, B, and C

Appendix A: Firm's Response to the Draft Inspection Report

Pursuant to section 104(f) of the Act, 15 U.S.C. § 7214(f), and PCAOB Rule 4007(a), the firm provided a written response to a draft of this report. Pursuant to section 104(f) of the Act and PCAOB Rule 4007(b), the firm's response, excluding any portion granted confidential treatment, is attached hereto and made part of this final inspection report.

The Board does not make public any of a firm's comments that address a nonpublic portion of the report unless a firm specifically requests otherwise. In some cases, the result may be that none of a firm's response is made publicly available.

In addition, pursuant to section 104(f) of the Act, 15 U.S.C. § 7214(f), and PCAOB Rule 4007(b), if a firm requests, and the Board grants, confidential treatment for any of the firm's comments on a draft report, the Board does not include those comments in the final report. The Board routinely grants confidential treatment, if requested, for any portion of a firm's response that addresses any point in the draft that the Board omits from, or any inaccurate statement in the draft that the Board corrects in, the final report.

MARCUM
ACCOUNTANTS ▲ ADVISORS

July 13, 2020

Mr. George Botic
Director
Division of Registration and Inspections
Public Company Accounting Oversight Board
1666 K Street, N.W.
Washington DC 20006

Re: Response to the Draft Report on 2018 Inspection of Marcum LLP

Dear Mr. Botic:

Marcum LLP (the "Firm") is pleased to provide this response to the Public Company Accounting Oversight Board's (the "PCAOB") draft report on the 2018 inspection of Marcum LLP (the "Draft Report").

The Firm respects the inspection process and we believe that, through formal communications and through interactions with PCAOB staff, it has led to improved audit quality. As we have after every inspection, we carefully considered the matters brought to our attention in connection with the 2018 inspection, and have taken actions to enhance our policies and procedures as part of our commitment to the highest standards of audit quality.

We have also thoroughly evaluated the matters described in Part I of the Draft Report and have taken steps to fulfil our responsibilities under AS 2901, *Consideration of Omitted Procedures after the Report Date* and AS 2905, *Subsequent Discovery of Facts Existing at the Date of the Auditor's Report*.

We appreciate the opportunity to respond to the Draft Report and welcome the opportunity discuss our response in particular and improved audit quality in general.

Very truly yours,

Marcum LLP

MARCUMGROUP
MEMBER

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