INVESTORS' AND ANALYSTS' REACTIONS TO OTHER INFORMATION DISCLOSURE ON THE AUDITOR'S REPORT

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ABSTRACT

New and revised Canadian Auditing Standards for audits of companies with fiscal periods ending on or after December 15, 2018 came into effect in April 2017. This paper examines the economic effects of one of the updates: the new auditor reporting requirement to disclose the auditor's responsibilities over other information. We investigate the relationship between the existence of the auditor's commentary about the MD&A within the other information paragraph on the auditor's report and the reactions of users of the financial statements, namely investors and analysts, to the MD&A. We find that both investors and analysts do not respond to the auditor's commentary about the MD&A within the other information paragraph present on the auditor's report. Our result indicates that although the disclosure may not be providing additional information value to users of the financial statements as the standard setters intended, it is also not creating an increase in the audit expectation gap.

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1. Introduction

In April 2017, the Canadian Auditing and Assurance Standards Board (AASB) approved new and revised auditor reporting standards. These new standards came into effect for all audits conducted under the Canadian Auditing Standards (CAS) for fiscal periods ending on or after December 15, 2018 (CPA Canada, n.d.). One of the changes resulting from the update is the requirement to include a section on the auditor's report describing the auditor's responsibilities over *other information*. Per the CPA Canada Handbook (2021), *other information* is defined as "financial or non-financial information (other than financial statements and the auditor's report thereon) included in an entity's annual report" (2021, para. 1). In Canada, common documents that qualify as *other information* are the management discussion and analysis (MD&A), management report of fund performance, and Form 10-K for U.S. Securities and Exchange Commission filers (CPA Canada, 2017). The most frequently included type of *other information* in the annual report is the MD&A. In this paper, we examine whether this new disclosure affects investors' and analysts' reactions toward one type of *other information*: the MD&A.

This revision to the auditor's report comes as a response to the ongoing international debate and discussion within the accounting research and professional communities over the nature, content, and communicative value of the traditional audit reporting model (Bédard et al., 2016). The AASB is not alone; the Canadian update closely aligns with changes made in January 2015 by the International Auditing and Assurance Standards Board (IAASB), with only a few Canadian-specific amendments (Deloitte Global, 2019). In the United States, the Public Company Accounting Oversight Board (PCAOB) also adopted a new auditor reporting standard in June 2017. Although there are numerous differences between the PCAOB update and the AASB/IAASB update, the primary goal of both initiatives remains the same: to make the auditor's

report more relevant to investors by enhancing its informativeness and transparency about the audit (PCAOB, 2017).

Therefore, there is a growing body of research investigating the impact of the numerous major changes to the auditor's report on stakeholders, such as the users of the financial statements, management, and auditors. Common themes to the questions prior research sought to answer are whether the updated auditor's report disclosure 1) provided incremental information value above what was already communicated by management through the financial statements, 2) supplied new information to financial statement users that they could not otherwise obtain themselves through other channels, 3) were helpful for investors and analysts to make their investments decisions, and 4) improved audit quality.

However, research evidence gaps remain. In particular, there is a lack of research on the auditor's statements over *other information* (Bédard et al., 2016). Our investigation focuses on one type of *other information*, the MD&A, because 1) all publicly traded firms in Canada must file the financial statements with the MD&A to securities regulatory authorities and 2) the CPA Canada Handbook specifically includes the MD&A within the scope of the relevant auditing standard (CAS 720). New disclosure about the MD&A can be important as the information presented in it can influence financial statement users' investment decisions (Brown & Tucker, 2011). For example, surveys conducted with financial analysts suggest they may rely more on the information presented within the MD&A than that presented within the audited financial statements (Epstein & Palepu, 1999).

Prior research has shown, however, that users and regulators have reservations about the quality and quantity of certain disclosures in the MD&A. The information presented within the MD&A can be subjective, as it communicates management's perspective on current performance,

future expectations, and strategic plans for the firm (Muslu et al., 2015). Research suggests that users prefer auditors to provide assurance over the MD&A in addition to the financial statements (Mock et al., 2013). Therefore, the inclusion of a new *other information* section on the auditor's report is important because its presence directly signals to the readers of the financial statements of the work done by the auditors over *other information*, including the MD&A. Although the audit opinion does not cover *other information* as per CAS 720, and the auditor explicitly states as such within the *other information* paragraph, there may be a discrepancy between the user's perception of the level of assurance provided over *other information* and the actual level of assurance provided by the auditors. In essence, there may be unintended consequences of enlarging the audit expectation gap: the existence of the *other information* disclosure paragraph in the auditor's report may cause the user to place a significantly higher level of trust on the *other information*.

Accordingly, in this paper we examine the relationship between the existence of the auditor's commentary about the MD&A within the *other information* paragraph on the auditor's report and the reactions of users of the financial statements, specifically investors and analysts, to the MD&A. In particular, we address the question: Does increased disclosure of *other information* on the auditor's report as required by the CAS 720 revision affect financial statement users' perception of the trustworthiness and use of the MD&A? We characterize users as investors and analysts. We measure perception through examining investors' and analysts' responses to MD&A information, following the methodology established in Brown and Tucker (2011).

Our sample includes all companies that were, at one point, listed on the S&P/TSX Composite Index during the January 2016 to December 2019 period. We identify a total of 1,155 firm-year observations for the sample period. In addition to obtaining data from conventional databases, we hand collect the auditor's report and MD&A information from annual filings

submitted to SEDAR. We use multivariate analysis models to study the investors' and analysts' reactions. To measure investors' reaction, we use the absolute value of the cumulative abnormal returns over a three-day period. To measure analysts' reaction, we calculate the absolute value of the mean change in forecast revision, scaled by stock price. We find that both investors and analysts do not respond to the auditor's commentary about the MD&A within the *other information* paragraph present on the auditor's report.

Our study contributes both to professional practice and accounting literature. First, it answers the question of whether increased disclosure of *other information* as mandated by recent auditor's report changes actually achieves its goal of making the auditor's report more transparent, informative, and relevant to user decision-making. Second, findings from our study shed important insight on evolving changes to audit reporting and disclosure and can have significant policy implications, such as standard amendments, for regulators and standard setters. Third, our study focuses on Canadian firms, which are relatively understudied as compared to firms in the U.S.A. Limited research shows that although the Canadian and the U.S.A. legal and regulatory institutions are similar, Canada has greater concentrated corporate ownership and a relatively high level of illegal insider trading that is not enforced (Bris, 2005; King, 2007). A recent study by Dutta et al. (2019) finds certain differences exist between the two jurisdictions that affect sentiment in the MD&A. Our study contributes to the limited research surrounding the effects of audit disclosure on market participants' responses in the Canadian context.

In the following section, we review relevant literature and then develop our research hypotheses. Section 3 describes the sample and research design. Section 4 presents the test results. Section 5 concludes on our analyses.

2. Background and Hypotheses Development

2.1 AASB CAS 720 Revision Process

In April 2017, the AASB unanimously approved a revised CAS 720 over the auditor's responsibilities related to *other information*. The CAS 720 is largely based on the International Standard on Auditing (ISA) 720. The IAASB initiated the revision in response to the increased weight that users place on details included in annual reports beyond the audited financial statements and the auditor's report, referred to as *other information*, and the corresponding need for increased clarity in the auditor's report regarding the auditor's involvement with this *other information* (IAASB, 2015b).

Therefore, in November 2012, the IAASB issued its first exposure draft of the proposed ISA 720. The IAASB stated that the proposed ISA could result in the following benefits: 1) improve audit quality by refining the definition and scope of *other information* so auditors can more consistently apply the standard; 2) increase the value of the audit, without changing its scope, by enhancing the auditor's responsibilities with respect to *other information*; and 3) narrow the audit expectation gap by enhancing disclosure surrounding auditor's responsibility and audit work performed on the auditor's report (IAASB, 2015a). In December of the same year, the AASB issued its own exposure draft which was largely similar to that of the IAASB (Deloitte, 2017).

The response to the IAASB's preliminary draft was generally positive. The respondents agreed with the IAASB's intention to "strengthen and clarify the auditor's responsibilities with respect to *other information*" and "to clarify the scope of the documents covered by ISA 720" (IAASB, 2015b, p. 4). There was also "broad support for introducing a separate section in the auditor's report that would provide transparency about the auditor's responsibilities relating to

other information" (p. 4). However, there were also significant concerns over wording ambiguities over the auditor's objectives, the scope of the documents covered, and the work effort expected from the auditor. The respondents believed that the ambiguity could lead to diverging practices among auditors, and therefore it would negate the benefits (IAASB, 2015b).

The AASB also responded with comments expressing similar sentiments of support toward ISA 720 for its efforts to strengthen the auditor's responsibilities over *other information*. However, the AASB also expressed concerns over two aspects: 1) that the changes to ISA 720 would not confuse financial statement users or widen the audit expectation gap, and 2) that the benefits of increasing the auditor's responsibilities would clearly exceed the costs. The AASB did not believe the initial exposure draft addressed either concern, and it feared the proposal "would, in effect, imbed within the financial statement audit an unspecified type of separate engagement related to *other information*" (AASB, 2014, p. 4).

In response to these comments, the IAASB approved a revised proposal for ISA 720 for re-exposure in March 2014. In total, the IAASB received 73 comment letters from, among others, regulators and audit oversight authorities, national auditing standard setters, and accounting firms (IAASB, 2015b). Respondents raised concerns over the extent of work effort, the definition of a misstatement in *other information*, and users inferring an incorrect level of assurance when none was intended. In its response, the IAASB agreed with the comments that it was important for users and auditors alike to avoid the perception that ISA 720 required the auditor to obtain assurance on the *other information*. However, the IAASB did not agree with all of the concerns and suggestions shared by the respondents. For example, it did not believe that users would confuse the term "misstatement of the *other information*" with the concept of a misstatement of the financial statements. It also did not want to add more detailed disclaimer language within the *other*

information disclosure due to: 1) certain descriptions were seen as "too technical for investors and other users to understand"; 2) high level of detail in the *other information* section would detract from the auditor's responsibilities for the audit itself; and 3) the *other information* section should fit appropriately in length and tone with the rest of the auditor's report (IAASB, 2015b, p. 16).

The current CAS 720 closely mirrors ISA 720 developed by the IAASB, with a few minor Canadian specific amendments. It can then be considered that the same assumptions regarding financial user knowledge and judgments of practicality made by the IAASB were accepted by the AASB as reasonable. However, no studies have been done to assess how these assumptions apply in the real world. In addition, there has been no investigation on whether the benefits touted by the IAASB have been realized. Our study focuses on investigating the realization of one of the benefits asserted by the IAASB: narrowing the audit expectation gap by enhancing disclosure surrounding auditor's responsibility and audit work performed on the auditor's report. Prior research shows users have knowledge deficiencies over key auditing concepts (Asare & Wright, 2012; Gray et al., 2011; Pany & Smith, 1982). Therefore, additional disclosure language may not reduce the audit expectation gap when users misinterpret or misunderstand it. Our study aims to investigate whether the increased *other information* disclosure reduces the audit expectation gap by measuring the reactions of users to its presence on the auditor's report.

2.2 Auditor's Responsibility Over Other Information

In the CPA Canada handbook post-auditor reporting, the revised CAS 720 describes the auditor's responsibilities toward *other information*. Paragraph 3 of the standard states that the auditor is responsible to read and consider the *other information* to identify any material inconsistencies between the *other information* and the financial statements that may mislead or inappropriately influence investor's decision-making. In addition, the auditor needs to consider

whether there is a material inconsistency between the *other information* and the auditor's knowledge obtained in the audit. Paragraph 8 then states that the auditor's review of *other information* does not constitute an assurance engagement. Some key differences between the revised and the unrevised CAS 720 are: 1) new requirement for auditors to consider discrepancies between the *other information* and their own knowledge, 2) further expansion of the definitions of *other information*, and 3) addition of the reporting section on the auditor's report.

Although significant revisions were made, the users of the financial statements may not understand the changes or have knowledge of their implications. Previous studies have already identified the interpretation and knowledge gaps between auditors and users when it comes to the auditor's report prior to the revision. Asare and Wright (2012) find that there are communication gaps between auditors and users of the financial statements, namely bankers and nonprofessional investors, regarding each group's understanding and interpretation of the messages conveyed on the standard auditor's report. Even though the auditor's report does not discuss or cover investment soundness, governance soundness, and the company's strategic direction, the users still place greater confidence in the management and health of the company when the auditor's report is present. In addition, the study concludes that there are "widespread differences in interpretation of the meaning of many of the technical terms" in the standard auditor's report (2012, p. 211). The authors believe that the communication gap cannot be reduced solely through increased disclosure or changes in technical terms on the auditor's report. Rather, the standard setters should consider expanding auditor's responsibilities to cover these expectation gaps, such as providing greater assurance on the MD&A.

Users of the financial statements also have difficulty understanding concepts of assurance and materiality and therefore are not particularly sensitive to differing levels of audit assurance.

Pany & Smith (1982) examine investors' reaction to quarterly information given varying degrees of auditor involvement. In their experiment, they tested four forms of auditor association: no association, limited review year-end, limited review quarterly, and audit. Using a questionnaire, they obtained participants' responses on their perception of the reliability of the financial information. They find that even when the specific form of association is clarified, investors generally do not reply differently to three out of the four levels of auditor association tested. They conclude that users are not able to identify the different types of assurance services auditors provide (Pany & Smith, 1982). A more recent study by Gray et al. (2011) finds similar results. The concepts of "level of assurance," "reasonable assurance," and "high level of assurance" were unclear to all participants of the study, which included preparers of financial statements, users of financial statements, and auditors (Gray et al., 2011).

Although users may not fully understand how the revision affects the way auditors perform their work, the users can identify visually the disclosure changes in the auditor's report. Users are expected to pay attention to these changes as psychology research shows that information from more credible sources is more persuasive to its audience (Pornpitakpan, 2004). Using eye-tracking technology, Sirois et al. (2018) find users access more rapidly and pay more attention to one of the new disclosures, key audit matters, on the auditor's report. Users consider disclosures in the auditor's report to be of higher source credibility than management's disclosures and therefore the disclosures draw their attention (Christensen et al., 2014).

However, while auditors state in the disclosure that no assurance is provided over their review of *other information*, it is unclear whether users will take note or understand this statement's significance. This is further complicated by the fact that users may already have misconceptions about what information is subject to auditing. In a study done prior to the revised

auditing standards, Bedard et al. (2012) find that many investors, both professional and nonprofessional, believe that information outside of the financial statements is audited when in fact it is not. They also find that when investors believe the information is audited, they use it more to make decisions. In the current context, users see the *other information* disclosure within an auditor's report meant to provide assurance. Therefore, by positively mentioning work performed over *other information*, such as the MD&A, on the auditor's report, users can have more opportunities to interpret its meaning divergent from what the auditor intended. Therefore, we predict:

H1: Investors who receive an other information paragraph on the auditor's report are more likely to react to MD&A disclosure than investors who receive an auditor's report without an other information paragraph.

H2: Analysts who receive an other information paragraph on the auditor's report are more likely to react to MD&A disclosure than analysts who receive an auditor's report without an other information paragraph.

3. Sample and Research Design

3.1 Sample

Our sample period is fiscal years 2016 to 2019 inclusive. The new auditor reporting standards came into effect for audits of financial statements for periods ending on or after December 15, 2018. The sample period starts in 2016 in order to allow us to observe two years both before and after the effective date of the auditor reporting standards revision. We use annual data for the following reasons: 1) audit engagements are performed on an annual basis, and 2) to avoid seasonality. We identify 311 companies that are, at one point, listed on the S&P/TSX

Composite Index during the sample period using two sources: Bloomberg Terminal and S&P Dow Jones Indices. The number of companies on the S&P/TSX Composite Index varies each year due to 1) companies are eliminated due to mergers or acquisitions, and 2) companies are added as a result of their newly qualified status for the index. For the 311 companies in our sample, we download data required for our empirical analyses from Compustat and IBES. For each firm in the sample period, we download the auditor's report and hand-code the *other information* disclosure within it. Appendix A presents four examples of the *other information* paragraph in the auditor's report. In all instances where we observe the *other information* disclosure, we also observe specific language referring to the MD&A. In other words, in our sample, the auditor always performs work over the MD&A as part of the CAS 720 required procedures over *other information*. We create a variable *Auditor_OI*, with 1 indicating that there is a disclosure in the auditor's report that explicitly mentions work performed over the MD&A in year t, and 0 otherwise. After the effective date of the CAS 720 revision, not all companies adopt the revision (i.e., *Auditor_OI* equals to 0) because 1) irregular year-ends, meaning firms with year-ends just prior to December 15, 2018, can delay adoption by up to a full calendar year, and 2) certain cross-listed companies choose not to adopt it. We further find that auditors, who explicitly state their work performed over the MD&A in the auditor's report, all conclude that there is no material misstatement of the MD&A disclosure. The screening leaves us with 1,155 firm-year observations. Table 1 presents the sample by fiscal year.

[Insert Table 1 here]

3.2 Measuring MD&A Disclosures

For companies that are reporting issuers in Canada, pursuant to part 5 of the continuous disclosure obligations as set out by the Canadian Securities Administrators (CSA), financial

statements must be accompanied by the MD&A. Each province's securities regulator is a member of the CSA, and all provincial regulators collaborate to set disclosure rules. Per the Ontario Securities Commission:

> The MD&A is a narrative explanation, through the eyes of management, of how a company performed during the period covered by the financial statements, and of the company's financial condition and prospects. The MD&A supplements financial statements and is required to be filed at the same time as the financial statements. (Ontario Securities Commission, n.d.-a, para. 6)

Per CPA Canada (2014), the MD&A's purpose is to help the company communicate to the users of the financial statements its current performance, potential, and prospects. The MD&A supplements and complements the financial statements by disclosing the company's strategic objectives and stewardship of resources. Together, both documents form the foundation for financial reporting. Not only do users benefit from the information disclosed in the MD&A, through the process of preparing the MD&A, the company also benefits by gaining new insights into key performance measures and indicators, promoting accountability and control, and facilitating benchmarking of performance.

While the MD&A is meant to be a rich information source for users to harness when making investment decisions, its true usefulness has been disputed in prior research. A review of early research by Cole and Jones (2005) concludes that MD&A information is useful in certain industries and contexts but there is limited knowledge about the role and usefulness of MD&A. Previous research investigating the informativeness of MD&A attempts to quantify the MD&A disclosure in three different ways: 1) hand-coded content analysis, 2) survey rankings, and 3) automated text analysis (Brown & Tucker, 2011). We use the automated text analysis method as

employed in the Brown and Tucker (2011) paper to quantify and control for the magnitude of change between MD&A documents from one year to the next.

The Vector Space Model (VSM) has been used in information retrieval systems and search engines to compare queries from users to documents hosted on their database (Turney & Pantel, 2010). This model can be used to compare any document, including the MD&A. As described in Brown and Tucker (2011):

> The VSM represents a document as a vector in an *n*-dimensional Euclidean space, where *n* is the number of unique words in all documents in the sample and the value of each vector element is the frequency of a particular word in that document. The similarity of any two documents is measured by the angle between the two vectors representing the documents: a smaller angle indicates more similar documents.[1] (Brown & Tucker, 2011)

The resulting similarity score is a value ranging from 0 to 1, where 1 represents the highest degree of similarity. Conversely, the difference score can be calculated by subtracting the similarity score from 1. We download MD&A documents from SEDAR and calculate the difference score between them for years t to $t+1$ for company i. Then we adjust the difference score for document length by a Taylor expansion at 0 as there is greater probability that pairs of longer documents include the same words than shorter documents (Brown & Tucker, 2011). The length-adjusted difference score is defined as the variable *Score*, which we use to measure the extent to which two MD&A documents are different. It represents the information value of MD&A documents. Brown and Tucker (2011) find that investors react more strongly to firms' 10-K filings

[1] The VSM is further refined by applying a weighting function that down-weights common words. This function is called term frequency × inverse document frequency, or tf-idf, which works similarly to using a list of stop-words. In addition, we normalize the words within a MD&A document by stemming, which reduces inflected words to their root or stemmed form.

when *Score* is higher (i.e., MD&A modification is larger), which suggests that modifications signify increases in information disclosure. However, analysts do not react to higher *Score*, which suggests they do not use MD&A information in the same way as investors.

3.3 Empirical Models

We follow the design in Brown and Tucker (2011) used to measure investors' and analysts' responses to MD&A modifications as a basis for our analyses. We use the following multivariate analysis models to study the investors' and analysts' reactions to the increased disclosure of the *other information* paragraph.

To investigate investors' reaction to *other information* disclosure:

$$|CAR_{it}| = a_0 + a_1 Auditor\_OI_{it} + a_2 Score_{it} + a_3 Auditor\_OI_{it} * Score_{it} + a_4 Size_{it} + a_5 Filelate_{it} + a_6 NewItems_{it} + year\ dummies + e \quad (1)$$

To investigate analysts' reaction to *other information* disclosure:

$$|Revision_{it}| = b_0 + b_1 Auditor\_OI_{it} + b_2 Score_{it} + b_3 Auditor\_OI_{it} * Score_{it} + b_4 Size_{it} + b_5 Filelate_{it} + b_6 NewItems_{it} + year\ dummies + e \quad (2)$$

In model (1), we measure investors' reaction by |*CAR*|, which is the absolute value of the cumulative abnormal returns over the three days beginning with the filing date, estimated using a one-factor market model for the [0, +2] event window around firm *i*'s filing date. The market model parameters are estimated over the period from 10 to 160 days before the filing date using returns from a value-weighted TSX market portfolio. A daily return of firm *i* is downloaded from

Datastream, while a daily return for the value-weighted TSX market portfolio is downloaded from the database provided by the Canadian Financial Markets Research Centre.

In model (2), we measure analysts' reaction by |*Revision*|, which is the absolute value of the change from the pre- and post-filing consensus, scaled by the stock price at the end of year *t*. We collect analyst forecast data from the IBES database. First, we isolate firm-year observations where there exists at least one analyst who makes a stock price prediction in the 90-day window prior to the filing date as well as a forecast revision within the 30 days after the filing date. We exclude a total of 309 firm-year observations that do not satisfy this condition. Then, for the remaining 846 observations, we calculate *Revision* by finding the difference between the mean analyst forecasts for year *t+1* issued in the 90-day window before the filing date and the mean forecasts issued in the 30-day window after the filing date. We then scale the results using stock price at the end of year *t*.

The variable of main interest is *Auditor_OI* * *Score*, which is the interaction effect between *Auditor_OI* and the *Score* variable. The interaction effect allows us to investigate the partial effect of the MD&A disclosure depending on the level of the MD&A modification score, and vice versa. If as predicted in H1 and H2, investors and analysts react to the increased disclosure of the MD&A in the auditor's report, we expect to find significant coefficients on the interaction in both models.

We follow prior research to determine the relevant control variables for our models. We follow Brown and Tucker (2011) and include control variables that capture company size (*Size*), filing delay (*Filelate*), and additional financial information (*NewItems*).[2] We control for *Size* as we

[2] Brown and Tucker (2011) include a control variable for the magnitude of market reaction around the earnings announcement date (CAR^{EA}). We do not include this control variable for our empirical models as we find the CAR^{EA} is equivalent to CAR for most companies, as in most cases of our firm-year observations (80.70% of the sample), the filing date is equivalent to the earnings announcement date.

expect investors' and analysts' reactions to large firms' MD&A filing to be smaller than small firms' due to more active private information search for large firms. Next, *Filelate* is an indicator variable equals to 1 if the company files more than 90 days after the fiscal year-end, and 0 otherwise. The filing deadline as set out by the CSA for Canadian companies is generally 90 days after the fiscal year-end (Ontario Securities Commission, n.d.-b). The act of filing late generates negative market reactions. Finally, we control for *NewItems*, which is a proxy for quantifying the information that is part of the filing package outside of the MD&A. We proxy for this information by counting the number of non-missing and nonzero Compustat items for each of the firm-year observations. We download all current Compustat items (XPF name) equivalent to Data1-Data399 of the old FTP name. Appendix B provides a summary of variable definitions.

4. Test Results

4.1 Descriptive Statistics

Panel A of Table 2 presents the descriptive statistics for the dependent and independent variables and panel B reports Spearman correlations. Panel A shows the mean of cumulative abnormal returns over the three days beginning with the filing date is 5.2%. The observations for *Revision* are less than 1,155 as we only capture mean forecasts for analysts who provide at least one forecast in each of the [-90, 30] window around the filing date. Firm-year observations without *Revision* mean no individual analyst makes a forecast in the 90 days prior to the filing date and subsequently makes a revision in the 30 days post filing date. Around 30% of the firm-year observations had an *other information* paragraph. There are no early-adopters, which means no auditors for firms in fiscal years ending prior to December 15, 2018 elected to disclose work

performed over *other information*. We find only about 0.9% of the sample firms file late.[3] The average number of non-missing and nonzero Compustat items is 131 and its distribution is fairly symmetric.[4] Panel B shows that investors' and analysts' responses are positively correlated with the existence of the *other information* disclosure, the interaction between *other information* disclosure and the MD&A modification score, and whether the firm filed late. However, *NewItems* is positively correlated with price reactions but not with analyst earnings forecast revisions.

[Insert Table 2 here]

4.2 Hypotheses Testing

Table 3 shows the results of the multivariate analysis of price reactions and analyst earnings forecast revisions as documented in H1 and H2. The estimation is robust to heteroskedasticity and within-firm error correlations. The left three columns (1, 2, and 3) report regression results for H1 regarding the likelihood of investors who receive an *other information* paragraph on the auditor's report to react to the MD&A more than investors who do not. Column 3 of the table shows that *Auditor_OI * Score* has an insignificant negative coefficient of 0.107 ($p = 0.495$). The interaction between *Auditor_OI* and *Score* is used to measure the magnitude of the effect of the existence of the *other information* paragraph (dichotomous variable) on investors' reaction depending on the degree of similarity of MD&A disclosure (continuous variable), and vice versa. We find, similar to Brown and Tucker (2011), a significantly positive coefficient for *Score* (at the 1% level).

[3] Brown and Tucker (2011) find at least 9.5% of the sample U.S.A. firms file late. A possible reason for this difference in sample characteristic is that technological improvements to the filing process in the past decade allow companies to file more consistently on time.

[4] Brown and Tucker (2011) find the average of *NewItems* to be about 160 items. The difference in averages may be because 1) Compustat updated its data organization system since 2011 and therefore the variable equivalents to Data1-Data399 are not reliably or consistently captured in the same manner, 2) Compustat does not capture as many data items for Canadian-listed firms as compared to U.S.A.-listed firms, and/or 3) Canadian firms disclose less financial statement information than U.S.A.-listed firms.

However, we find insignificant coefficients for *Auditor_OI * Score* and *Auditor_OI*. The fact that there is no significant interaction effect indicates that the presence of *other information* disclosure on the auditor's report has no effect on investor decision-making.

[Insert Table 3 here]

We are also able to replicate the results of other control variables with respect to |*CAR*|. As anticipated, *Size* is significantly negatively associated with |*CAR*|. *Filelate* is positively associated with |*CAR*|, although at a weaker significance level than Brown and Tucker (2011). This may suggest that although late filings may still reveal additional information, our result may be affected by 1) significantly smaller percentage of our sample population file late (0.9% of our sample as compared to 9.3% in Brown and Tucker [2011]), and 2) market differences between Canada and the U.S.A.[5] Like Brown and Tucker (2011), we find that the coefficient *NewItems* is weakly positive, which suggests that investors do react to additional numerical disclosures in the annual report.

In the right three columns (4, 5, and 6), we report regression results for H2 regarding the likelihood of analysts who receive an *other information* paragraph on the auditor's report to react to the MD&A more than analysts who do not. Column 6 of the table shows that *Auditor_OI * Score* has an insignificant negative coefficient of 0.254 ($p = 0.125$). As well, insignificant coefficients for *Auditor_OI * Score* and *Auditor_OI* indicate that the presence of *other information* disclosure on the auditor's report has no effect on analyst decision-making.

[5] Although Canada and the U.S.A. have similar economic, legal, and regulatory environments, limited research does show that there are institutional differences between the two countries (Dutta et al., 2019).

As column (3) - (6) reports, we find that *Score* is significantly negatively associated with |*Revision*| (at the 5% level) whereas Brown and Tucker (2011) find no significance and conclude that analyst forecast revision is unrelated to *Score*. We believe this difference can be attributed to the fact that as more experienced investors, analysts have access to multiple sources of information, both public and private, and their expertise to generate accurate earnings forecasts. However, the MD&A, when it is released, remains a primary source of information for analysts as it can help them further improve forecast accuracy. Recent research shows that forecast models with textual content from the MD&A enhance the earnings forecast accuracy by approximately 5%, on average, as compared to models with only financial variables (Bochkay & Levine, 2019). The contents captured by a high MD&A modification score reflect management's additional explanations of the firm's past significant economic events.[6] More management explanations can reduce the analysts' perceived uncertainty about the firm's performance and increase their confidence about previous forecasts. Therefore, analysts revise their forecasts less when *Score* is high.

Results for the other control variables are largely consistent with |*CAR*|. The only result that differs from |*CAR*| and Brown and Tucker (2011) is *Filelate*. *Filelate* has a significantly negative coefficient of 0.025 ($p = 0.013$). This suggests that the act of filing late also has information value for analysts. However, analysts are making smaller revisions for companies who file late. We can explain the difference between our results and Brown and Tucker (2011) in a couple of ways: 1) as mentioned prior, only 10 firm-year observations in our sample population

[6] Brown and Tucker (2011) conclude the following about the informativeness and contents captured by the *Score* variable: 1) managers modify the MD&A more when the firm experiences larger economic changes (except for changes in risk exposure) and when discussing changes in liquidity and capital resources (as compared to operations); and 2) firms operating in a more litigious environment has higher modification scores.

filed late. A larger positive sample for *Filelate* may present different results; 2) technological advancements in the past few decades allow access to news and information about companies easier and faster than before. The sample years in Brown and Tucker (2011) spans between 1997 and 2006. Our sample years are 2016 to 2019. It is possible that analysts have better access to alternative information sources to anticipate a late filing and make more conservative assessments and forecasts. Therefore, the subsequent revision is smaller.

5. Conclusion

New standards came into effect for all audits conducted under the Canadian Auditing Standards for fiscal periods ending on or after December 15, 2018 (CPA Canada, n.d.). One of the major changes is the requirement to include a section on the auditor's report describing work conducted over *other information*. In Canada, a ubiquitous document that qualifies as *other information* is the MD&A. Our study investigates the relationship between the existence of the auditor's commentary about the MD&A within the *other information* paragraph on the auditor's report and the reactions of users of the financial statements, specifically investors and analysts, to the MD&A.

We find that both investors and analysts do not react differently to the MD&A disclosure when the auditor's commentary about the MD&A within an *other information* paragraph is present on the auditor's report. Our result suggests that although the disclosure may not be providing additional information value to users of the financial statements as the standard setters intended, it is also not creating an increase in the expectation gap. Accordingly, we can also conclude that perhaps users' indifference to the disclosure can mean that they already possess knowledge of the

contents of the disclosure, such as the extent of the auditor's work over *other information*, and therefore do not react to it.

This study contributes to the body of existing literature investigating the impact of the numerous major changes to the auditor's report on stakeholders, such as the users of the financial statements, management, and auditors. We show that the *other information* paragraph in its current form has no effect on investors' or analysts' reactions to the MD&A. Our study investigates the realization of one of the benefits asserted by the standard setters: narrowing of the audit expectation gap. Future research can investigate the effects of other possible benefits of the *other information* disclosure on audit quality and the value of the audit.

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List of Tables

TABLE 1
Sample by Year

		Auditor_OI	
Year	Firms	Auditor_OI = 1	Auditor_OI = 0
2016	292	0	292
2017	296	0	296
2018	288	168	120
2019	279	179	100
Total	**1,155**	**347**	**808**

TABLE 2
Descriptive Statistics for Investors' and Analysts' Reactions

Panel A: Descriptive statistics

	Obs	Mean	P25	Median	P75
|CAR|	1,149	5.2%	1.4%	3.3%	6.4%
|Revision|	846	0.035	0.004	0.011	0.029
Auditor_OI	1,155		1 for 30% of the sample		
Score	1,145	0.818	0.800	0.810	0.830
*Auditor_OI*Score*	1,145	0.246	0	0	0.790
Size	1,155	8.379	7.258	8.189	9.279
Filelate	1,155		1 for 0.9% of the sample		
NewItems	1,155	131	112	138	160

Panel B: Spearman correlations

	|Revision|	Auditor_OI	Score	Auditor_OI *Score	Size	Filelate	NewItems
|CAR|	**0.178**	**0.080**	**-0.089**	**0.060**	**-0.242**	**0.087**	0.003
|Revision|		0.056	**-0.183**	0.021	**-0.169**	0.027	**-0.138**
Auditor_OI			-0.034	**0.979**	-0.022	-0.020	**-0.141**
Score				0.076	**0.540**	-0.056	**0.114**
*Auditor_OI * Score*					0.032	-0.019	**-0.135**
Size						**-0.147**	**0.148**
Filelate							-0.034

The correlations that are statistically significant at 5% are bolded.

TABLE 3
Regression Results for Price Reaction and Analyst Earnings Forecast Revisions

	Dependent Variables					
	(1)	(2)	(3)	(4)	(5)	(6)
	|CAR|	|CAR|	|CAR|	|Revision|	|Revision|	|Revision|
Auditor_OI		-0.010	0.078		-0.006	0.202
		(-1.486)	(0.605)		(-0.634)	(1.425)
Score	0.216***	0.208***	0.235***	-0.271***	-0.276***	-0.210**
	(2.683)	(2.585)	(3.126)	(-3.347)	(-3.383)	(-2.332)
*Auditor_OI * Score*			-0.107			-0.254
			(-0.683)			(-1.534)
Size	-0.011***	-0.011***	-0.011***	-0.002	-0.002*	-0.002
	(-7.299)	(-7.349)	(-7.196)	(-1.592)	(-1.724)	(-1.596)
Filelate	0.067*	0.066*	0.067*	-0.026**	-0.027***	-0.025**
	(1.872)	(1.846)	(1.864)	(-2.552)	(-2.614)	(-2.482)
NewItems	0.000***	0.000**	0.000**	-0.000	-0.000*	0.000*
	(2.585)	(2.104)	(2.001)	(-1.487)	(-1.711)	(-1.747)
Y2017	0.010***	0.010***	0.010***	-0.010	-0.010	-0.010
	(2.719)	(2.724)	(2.708)	(-1.104)	(-1.103)	(-1.119)
Y2018	0.015***	0.021***	0.209***	-0.006	-0.002	-0.003
	(3.586)	(3.410)	(3.332)	(-0.642)	(-0.180)	(-0.266)
Y2019	0.042***	0.048***	0.048***	0.018	0.022*	0.022*
	(7.415)	(6.603)	(6.615)	(1.418)	(1.797)	(1.764)
Intercept	-0.065	-0.055	-0.077	0.291***	0.298***	0.242***
	(-1.090)	(-0.930)	(-1.394)	(4.201)	(4.301)	(3.229)
R^2	0.128	0.131	0.131	0.022	0.022	0.023
Obs.	1143	1143	1,143	836	836	836

, **, and * indicate significance at the 10%, 5%, and 1% level, respectively, based on two-tailed tests. From left to right, columns 1 to 3 show regression results for |CAR| considering the test variable(s) Score only; Score and Auditor_OI; and Score, Auditor_OI, and Auditor_OI * Score, respectively. Columns 4 to 6 show regression results for |Revision| considering the test variable(s) Score only; Score and Auditor_OI; and Score, Auditor_OI, and Auditor_OI * Score, respectively. The t-values are presented in parentheses.*

Appendix A: Examples of the Other Information Paragraph in the Auditor's Report

Example 1: Deloitte

Saputo Inc. – Fiscal Year Ended March 31, 2019

Other Information

Management is responsible for the other information. The other information comprises:

- Management's Discussion and Analysis
- The information, other than the financial statements and our auditor's report thereon, in the Annual Report.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

We obtained Management's Discussion and Analysis and the Annual Report prior to the date of this auditor's report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in this auditor's report. We have nothing to report in this regard.

Example 2: PricewaterhouseCoopers

Air Canada – Fiscal Year Ended December 31, 2018

Other information

Management is responsible for the other information. The other information comprises the Management's Discussion and Analysis, which we obtained prior to the date of this auditor's report and the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report, which is expected to be made available to us after that date.

Our opinion on the consolidated financial statements does not cover the other information and we do not and will not express an opinion or any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard. When we read the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report,

if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Example 3: Ernst & Young

Jamieson Wellness Inc. – Fiscal Year Ended December 31, 2019

Other information

Management is responsible for the other information. The other information comprises:

- Management's Discussion and Analysis
- The information, other than the consolidated financial statements and our auditor's report thereon, in the Annual Report

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

We obtained Management's Discussion and Analysis prior to the date of this auditor's report. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

The Annual Report is expected to be made available to us after the date of the auditor's report. If based on the work we will perform on this other information, we conclude there is a material misstatement of other information, we are required to report that fact to those charged with governance.

Example 4: KPMG

Northview Apartment Real Estate Investment Trust – Fiscal Year Ended December 31, 2018

Other Information

Management is responsible for the other information. Other information comprises:

- the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions.
- and the information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled the "Annual Report".

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have

performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report. We have nothing to report in this regard. The information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled the "Annual Report" is expected to be made available to us after the date of this auditors' report. If, based on the work we will perform on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact to those charged with governance.

Appendix B: Variable Definitions

Variable	*Definition*
Dependent Variables	
|*CAR*|	The cumulative abnormal returns over the three days beginning with the filing date, which is estimated using a one-factor market model for the [0, +2] event window around firm *i*'s filing date. The market model parameters are estimated over the period from 10 to 160 days before the filing date using returns from a value-weighted TSX market portfolio.
|*Revision*|	The absolute value of the change from the pre- and post-filing consensus, scaled by the stock price at the end of year *t*. We calculate Revision by finding the difference between the mean analyst forecasts for year *t+1* issued in the 90-day window before the filing date and the mean forecasts issued in the 30-day window after the filing date. We then scale the results using stock price at the end of year *t*.
Independent Variables	
Auditor_OI	1 if the other information disclosure exists on the auditor's report and that the disclosure explicitly mentions work performed over the MD&A in year *t*, and 0 otherwise.
Score	A measure representing the extent to which two MD&A documents are different. We adjust the Score for document length by a Taylor expansion at 0. The Score ranges from 0 to 1. A higher Score indicates more differences.
*Auditor_OI * Score*	The interaction effect between *Auditor_OI* and the *Score* variable. It allows us to investigate the partial effect of other information disclosure depending on the level of the MD&A modification score, and vice versa.
Size	Natural logarithm of total assets at the end of year *t*.
Filelate	1 if the company in year *t* files more than 90 days after the fiscal year-end, and 0 otherwise.
Newitems	Total number of nonmissing and nonzero financial statement items in Compustat. We use Newitems to proxy and control for other information outside of the MD&A in the annual filing. In the legacy Compustat FTP format, these data variables are referred to as Data1-Data399. We use the "Compann Variable Translation" Excel file provided by the Wharton Research Data Services to translate the legacy FTP names to Xpressfeed names.