

**Audit Partner Identity Disclosure and Earnings Management in the US:  
The Effect of Reputation Risk and Gender of the Audit Partner**  
Master thesis

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**Abstract**

This research examines the impact of the audit partner identity disclosure requirement of the PCAOB on earnings management of US companies with data from 2015 to 2017, using both an accrual-based measure and meeting or beating analyst forecasts, as a dependent variable. While prior literature focuses on audit quality in general, this research focuses on the narrower concept: earnings management. It also examines the underlying factor that primarily drives the change in the acceptance towards earnings management: the increase in reputation risk of the individual audit partner. Based on previous studies I examine this relationship by using Big Four and Non-Big Four audit firms. As with the audit partner disclosure requirement, data are now publicly available and prior literature suggests significant behavioral differences between men and women in business. I provide evidence on the pre-and post-disclosure difference between male and female audit partners in earnings management of their clients. Results show that earnings management significantly decreases when the identity of the engagement partner is made public. Due to insufficient evidence no conclusion can be drawn on the difference in impact between Big Four and Non-Big Four firms and thus on reputation risk. The accrual-based model shows a significant decrease for male audit partners in the acceptance of earnings management, potentially leading to a smaller gap in relation to female audit partners.

**Keywords:** Audit partner identity disclosure, earnings management, auditor reputation, audit partner gender

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## 1. Introduction

*'It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you'll do things differently'*

—Warren Buffett (2013)

The first decade of the 21st century was full of accounting scandals that triggered bankruptcy (Enron), as well as the downfall of former Big-five audit firm Arthur Andersen. As a result, the Sarbanes Oxley Act of 2002 established the U.S. Public Company Accounting Oversight Board (hereafter: PCAOB). The PCAOB is a central board that oversees the quality of audits of public companies, by promoting informative, accurate and independent audit reports. (Pcaobus.org, 2018) After multiple audit scandals, the PCAOB focuses on restoring the public's trust in auditors. A number of reforms are already carried out for the auditing profession by the PCAOB. (Reid and Youngman, 2017) Recently, the PCAOB implemented Rule 3211: Auditor Reporting of Certain Audit Participants. The PCAOB requires registered public accounting firms to file a Form AP<sup>1</sup>, in which they disclose the identity of the audit engagement partner for each audit report that the firm issues after January 31, 2017. (Pcaobus.org, 2018) Since June 29, 2017 component auditors have to be made public either. (Burke and Hoitash, 2017)

The reason for implementing the new requirement is to improve audit quality by increasing accountability of the audit partner and transparency of the audit process. (PCAOB 2015b) The PCAOB expects that partner identification motivates partners to increase audit effort and tries to mitigate the possibility of restatements. (Cunningham et al, 2017)

This research examines the short-term effect of the disclosure requirement in the US by analyzing data from 2015-2017 on earnings management. The small available amount of literature for this subject focuses on audit quality in general, this research focuses on a narrower effect: earnings management. As a definition of earnings management, I use a quotation from Healy and Wahlen (1999, p.368): "Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers."

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<sup>1</sup> Auditors are from 31 January 2017 onwards obliged by the PCAOB to file a Form AP, which stands for Audit Participants.

In Addition, I build on reputation theory and argue that earnings management has decreased after the implementation of the PCAOB rule and that increased reputation risk is the driving force behind the potential decrease in earnings management. Reputation is defined as: ‘Reputation is the estimation of the consistency over time of an attribute of an entity. This estimation is based upon the entity’s willingness and ability to repeatedly perform an activity in a similar fashion. ‘ (Herbig et al. 1994. P.23)

I also examine the difference in impact between male and female audit partners of the new requirement. As data are now available and prior literature implicates the differences in behavior between men and women, it is interesting to examine the differences towards earnings management before and after the implementation of the new requirement.

Combining the three parts as stated above, the research question of this paper is: *Has earnings management decreased after implementation of the requirement to file a Form AP, with reputation risk as its driving force and is there a difference in the impact of the requirement between male and female audit partners?*

To answer the research question, this research uses a post-disclosure sample of companies that issued their financial statements after 31 January 2017, but before 30 June 2017, following Burke et al. (2017) to examine the effect of the audit partner disclosure. Compared to a pre-sample of the same companies in 2016 and 2015, I expect that the level of earnings management of these companies in 2017 is significantly lower compared to the prior years. For the dependent variable I use discretionary accruals and meeting or beating analyst forecasts. In addition, I provide evidence on the underlying mediating variable, increased reputation risk, which leads to a potential lower acceptance of aggressive accounting methods of the client. This research suspects that before January 31, 2017 there is a difference in earnings management between Big Four and Non-Big Four audit firms. During 2017, I expect that this gap will be larger, due to a higher reputational risk for the engagement partner. I argue that before the implementation of Rule 3211 there is a difference between male and female audit partners in the acceptance towards aggressive accounting methods, but that this difference will become smaller when the audit partner disclosure requirement is effective.

Results show that earnings management significantly decreases when the identity of the engagement partner is made public. Due to insufficient evidence no conclusion can be drawn on the difference in impact between Big Four and Non-Big Four and thus on reputation risk.

Regression results show the expected coefficients, however all coefficients are insignificant. The meeting or beating analyst forecasts model does not present significant results, however the accrual-based model shows a significant decrease for male audit partners in the acceptance of earnings management, potentially leading to a smaller gap in relation to the acceptance towards earnings management of female audit partners.

Providing an answer to the research question is important for several reasons. Firstly, this paper contributes to a growing amount of literature that examines the effect of audit partner disclosure. The outcomes of the already published literature on this subject are mixed. (Cianci et al. 2017; Carcello and Santore, 2015; Brown et al. 2018; Abbott, 2017) Only two of them are using archival data. (Burke and Hoitash, 2017; Cunningham et al, 2017) This archival research complements the earlier experimental and theoretical work. Secondly, this is the first research that focuses primarily on the effect of partner disclosure in relation to the acceptance towards earnings management of the client. DeAngelo (1986) and Becker et al. 1998 describe earnings management as a subset of audit quality. While audit quality is a broad concept and prior research on the new requirement is mixed, it is valuable to examine the effect of earnings management. Burgstahler et al. 2006 sees earnings management as a dimension of audit quality. Thirdly, both prior literature and audit firms have flagged increased reputation risk as the underlying variable, which is seen by them as an unintended consequence. (Basu and Shekhar, 2016; Carcello and Li, 2013) The PCAOB expects that partners with the disclosure requirement have a higher incentive for building and maintaining individual reputation for high-quality audits. (PCAOB, 2015a) In response to this, my research examines increased reputation risk, as being the mediating variable. Fourthly, using the available data on individual audit partners, I examine whether the gap in acceptance of earnings management between male and female audit partners becomes smaller after implementation of the PCAOB rule. The understanding of the consequences of Rule 3211 will be extended, when distinguishing between male and female audit partner. Fifthly, prior literature on the subject uses a sample that consists on just public companies. They all admit that future research has to include both public and private companies. Making use of a sample containing both public and private companies for the accrual-based model adds to the existing literature. Lastly, the overall investigation of the effect is beneficial for regulators and other standard-setters. After a long debate, they could see whether the effects are as expected. In addition, it is useful for investors, because it could decrease their costs of obtaining information

for decision-making. Moreover, audit committees can make a better decision when hiring auditors.

The remainder of this research is set up in the following way. The next section is attributed to the background of the implementation of Rule 3211. It gives an overview of relevant studies on the subject of audit partner disclosure, audit partner reputation and gender in combination with earnings management. Section three consists of an explanation why companies exert earnings management, the role of auditors and the hypothesis development. Section four elaborates on the research design that is chosen to carry out the research. Section five gives an overview of the sample selection process. Results are given and critically explained in section six, followed by a small section on the robustness checks by means of a smaller sample and running the same regression for positicein order to find more significant results. The final section contains the conclusion as well as some limitations of this research and proposals for further research.

## **2. Background and Literature review**

### **2.1 Background on audit partner disclosure requirement**

Since January 31, 2017 the PCAOB implemented Rule 3211 in the US. From that date, the name of the engagement partner has to be disclosed in a Form AP. The Form AP will be sent directly to the PCAOB. Proponents of the disclosure requirement were mainly financial statement users. The public could now assess the quality of the individual audit partner and partner identification would allow the capital markets to assess the cost of capital of the firm. Both can be used for investors' decision making. (e.g. Brown et al 2017; Reid and Youngman, 2017) Besides most financial statement users, some information intermediaries were positive about partner identification. The following quote is from the managing partner of Sinclair Capital LLC (2014, p.1) that provides consulting in corporate governance and institutional investing issues: *“personally identifying [one’s] work correlates to increased pride and craftsmanship”—and, “because identifying the audit partner, provides valuable information— both positive and negative—to investors.”*

Before the actual implementation of Rule 3211 the PCAOB considered several disclosures over the past few years. (Burke and Hoitash, 2017) On July 28, 2009 the PCAOB issued the concept release of the proposed new disclosure requirement: ‘Requiring the Engagement Partner to Sign the Audit Report. (PCAOB, 2009) This concept release proposed that the audit partner had

to sign the audit report, next to the audit firm's signature. The PCAOB stated that the disclosure of the identity of the audit partner was to increase the transparency of the audit process and the accountability of the partner. Furthermore, they pointed out that similar requirements have also been implemented in other countries lately. Indeed several countries, such as Australia, China, the UK and Taiwan have adopted earlier a requirement that the identity of the individual engagement partner has to be disclosed in the audit report. Prior to the requirement, public companies in the US were obliged to disclose merely the name of the accounting firm. In 2009, the PCAOB announced that the audit partner had to sign additionally to the firm's signature. (Cunningham et al. 2017)

As a reaction to the concept release, the PCAOB received 23 comments. The majority was from audit firms and organizations that represented CPA's in the US. (Cunningham et al. 2017) Opponents of the implementation, in general auditors, reflected their concerns in three-fold. Big-Four accounting firms send comment letters to the PCAOB, in which they elaborated these concerns. They suggest that there already is an extensive amount of regulatory oversight in place. Besides that, reputational risk for the audit partner would outweigh the possible benefits. In addition, partners could face higher litigation costs when their client's earnings does not give a true and fair view. (Carcello and Santore, 2015) They were proponents for more transparency for the audit process, but did not approve the disclosure of the identity of the audit engagement partner. Big-Four audit firms, as well as the Institute of Management Accountants commented that Rule 3211 leads to an unnecessary high degree of conservatism, which in turn could lead to higher (restatement) costs and inappropriate audit opinions. (Reid and Youngman, 2017) Because of strong opposition, the PCAOB did a new attempt on October 11, 2011, by issuing an improved version of its concept release: 'Improving the Transparency of Audits: Proposed Amendments to PCAOB Auditing Standards and Form 2. (PCAOB, 2011) This version mandated that an additional sentence was added to the audit report that would disclose the identity of the leading audit engagement partner and that the audit partner had to file a Form 2 to the PCAOB in which his or her identity will be disclosed. (Cunningham et al. 2017) The rule is revised by stating the name of the engagement partner instead of a signature of the required engagement partner. Additionally it requires to file the names, locations and extent of participation of accounting firms that participated for 5 percent or more of the total audit hours. (Cianci et al. 2017; Reid and Youngman, 2017)

Because of the presumed increase in reputation risk that was forecasted by the opponents, the PCAOB compromised by requiring audit partners not to sign the audit report itself, but to file a Form AP: Auditor Reporting of Certain Audit Participants (PCAOB, 2015), directly to the PCAOB. *‘For me, this issue has always been more about improving audit quality, which is not where it should be, by enhancing and influencing a leader’s sense of individual accountability and acceptance of responsibility for a team effort he or she has led by signing his or her name to a most commonly reviewed report, as opposed to simply being identified in a newly developed form. However, I understand that reasonable people may agree to disagree, which is why I support today’s compromise which will result in the creation of a new standardized form—the Form AP.’*

—Steven B. Harris, 2015 PCAOB Open Board Meeting

In this way the disclosure is less visible and accessible than disclosure in the audit report, which is mandated in other countries, such as several European Union countries, Taiwan, China, Australia. (Cunningham et al. 2017; Basu and Shekhar, 2016) The audit partner disclosure rule in the US became effective from January 31th, 2017 and from June 29, 2017 onwards, component accounting firms have to be disclosed as well.

## 2.2 Literature review

In Table 1 the most important and cited literature is shown, which is used as a foundation in this empirical work.

Authors	Year	Journal	Title	Main findings
Balsam et al.	2003	Auditing: A Journal of Practice & Theory	Auditor industry specialization and earnings quality.	Big Six firms have higher incentives to protect reputation than Non-Big Six firms. Firms that specialize in certain industry are better in detecting earnings management.



Basu and Shekhar	2016	Contemporary accounting research	What's in a Name? Reputation and Monitoring in the Audit Market.	Auditor incentives changed after disclosure requirement, due to higher reputation risk.
Blay et al.	2014	International Journal of Auditing	Audit quality effects of an individual audit engagement partner signature mandate.	Increase in audit quality.
Brown et al.	2018	Working paper	Mandatory Disclosure of Audit Engagement Partners: Impact on Audit Quality	Partners allow less aggressive reporting. Higher audit effort.
Burke and Hoitash	2017	Available at SSRN	Audit Partner Identification: Early Evidence from U.S. Form AP Filings	Increase in audit quality. Increase in audit fee and decrease in audit delay. Negative association between female auditors and discretionary accruals, only for Big Four firms.
Caramanis and Lennox	2008	Journal of Accounting and Economics	Audit effort and earnings management.	Lower audit effort is linked to more aggressively reported earnings. Relation between income-increasing earnings management and reputation of the auditor.
Carcello and Li	2013	The Accounting Review	Costs and benefits of requiring an engagement partner signature: Recent experience in the United Kingdom	Increase in audit quality and audit fees.

Carcello, J. and Santore, R.	2015	Accounting Horizons	Engagement Partner Identification: A Theoretical Analysis.	After the disclosure: more conservative accounting and more gathering of evidence. Expects that requirement affects primarily Big Four partner, due to reputation risk.
Chi et al.	2015	Working paper	Information in financial statement misstatements at the engagement partner level: A case for engagement partner name disclosure?	Identity disclosure of audit partner is informative to stakeholders.
Cianci et al.	2017	Auditing: A Journal of Practice & Theory	Audit partner identification: Unintended consequences on audit judgment.	Shows unintended consequence: more aggressive judgment is used.
Cunningham et. al	2017	Available at SSRN	What's in a Name? Initial Evidence of U.S. Audit Partner Identification Using Difference-in-Differences Analyses	No significant change in audit quality and fees.
Jiang et al.	2015	Advances in Accounting	Accounting restatements and audit quality in China.	No significant relation between audit quality and partner disclosure. Audit quality is influenced by economic incentives of partner.
Kim et al.	2003	Contemporary Accounting Research	Auditor conservatism, asymmetric monitoring, and earnings management.	Big Four firms are more effective in detecting income-increasing discretionary accruals,

				than Non-Big Four firms.
Knechel et al.	2015	Contemporary Accounting Research	Does the identity of engagement partners matter? An analysis of audit partner reporting decisions.	Individual audit partners are linked to reporting style. Audit partner disclosure is informative to users of financial statements.

**2.2.1 Prior literature on audit partner disclosure regulation in foreign countries**

One of the PCAOB’s objectives for implementation in the US was that comparable regulation already existed in foreign countries. (e.g. Carcello and Li, 2013; Blay et al. 2014; Chi et al. 2015) In countries such as France, Germany, Luxembourg, the Netherlands, and the United Kingdom audit partners have to sign the audit report. Previous research on the effect of audit partner identification mainly focuses non-US data. In this section an overview can be found of the most relevant non-US literature on audit partner disclosure.

Carcello and Li (2013) provide research for a sample of UK companies. They used several dependent variables for their research: abnormal accruals, the likelihood of meeting an earnings benchmark, the incidence of qualified audit opinions and earnings informativeness. The first two variables decreased after implementation as the last two variable increased, meaning that audit quality has increased. Hereafter they show that audit fees increased and that their results are consistent, when using a matched sample of US companies and four other countries.

Audit reports in financial statements of all companies in the Netherlands that were published on or after December 31, 2005 have to be signed through the audit engagement partner. (Blay et al. 2014) The authors use in their research for the Netherlands three accrual-based measures, multiple earnings benchmark measures and used an UK sample as matched-pair control group. Results suggest that audit quality increased because of a signature at partner-level.

Chi et al. 2015 discuss the relationship between audit quality and individual audit partners in Taiwan. Using data on restatements, the authors conclude that information disclosure on the identity of the partner could be informative for stakeholders about audit quality. They reveal that the individual audit partner is crucial for audit quality as well as reputation and can be damaged when misstatements are made.

In the article of Jiang et al. 2015 the audit-market of China is examined, where it is required by law that each audit report is certified by two audit partners whose names are both disclosed. Although Jiang et al. 2015 fail to find evidence supporting that audit quality is enhanced, they do find evidence that shows audit quality is influenced significantly by the economic incentives of the audit partner.

### **2.2.2 Prior literature on audit partner disclosure regulation in US**

To my knowledge, two previous studies examined the impact of the audit partner identification rule in the US, in which the research findings are mixed. Both articles focus on the association with audit quality, whereas my research focuses on the partner's acceptance related to earnings management.

In the study of Burke and Hoitash (2017) the results show that audit quality did increase after the implementation of Rule 3211. Furthermore they conclude that there was an increase in audit fee and a decrease in audit delay. The authors suggest that requiring an engagement partner to sign the Audit Report was beneficial for intended users of the Audit Report.

Cunningham et al (2017) show that both audit quality and audit fees did not change after the implementation of Rule 3211, using a difference-in-difference research. Reasons for this outcome are mentioned, such as that accountability for audit partners was already high in the US and disclosure of the partner's name in a Form AP is not as visible and timely as it was intended by the PCAOB.

Cianci et al. (2017) conduct an experiment, in which they tested the impact of the partner identification requirement on partner judgment. By manipulating different levels of partner identification they argue whether the partner used accounting conservatism, related to writing-off inventory. In contrast to PCAOB's intended goal, the research shows that partners are using more aggressive accounting methods, which is an unintended consequence of the proposed regulation.

A theoretical study performed by Carcello and Santore (2015) shows that engagement partners use more conservative accounting methods and gather more audit evidence, after implementation of a partner identification requirement. This is in contrast to the experiment by Cianci et al. (2017). The study expects that due to a shift in reputational risk from the firm to the engagement partner, the partner used more conservatism in reporting. Further, the model indicates that the partner identification requirement affects primarily audit partners of large firms. Partners

in larger companies run a higher risk and therefore pay more attention to their reputation and litigation risks.

The recent research of Brown et al. 2018 shows that partners allow a less aggressive reporting technique, when the partner identity is disclosed and exert more effort during the audit. Due to an increased level of transparency, which was identified as one of the PCAOB's goals, partners accept riskier clients than when the users of the financial statements do not know the identity of the partner.

### **2.2.3 Prior literature on auditor characteristics in relation to earnings management**

Recent studies provide an increasing amount of literature that examines auditor characteristics in relation to audit outcomes, while data on individual audit partner become more and more available.

Becker et al. 1998 study the effect of earnings management on audit quality. They find supporting results that clients of Big Six audit firms report less discretionary accruals than non-Big Six audit firms. DeAngelo (1986) was the first researcher that studied the assumption that Big Six auditors produce higher-quality audits.

An extensive amount of literature examines factors that tend to limit earnings management. Healy and Wahlen (1999) were the first to request the need for research on these mechanisms. One of these factors that limits earnings management of companies is whether large audit firms audit companies, as examined by Francis and Yu (2009). In this article the authors find that clients of Big Four firms exert significantly lower levels of aggressive earnings management. As a consequence they produce higher-quality audits.

In the 2008 paper of Caramanis and Lennox, the relation between audit effort and earnings management is examined. They provide evidence suggesting that lower audit effort increases the reporting of aggressively high earnings. The authors explain that auditors advise their clients to adjust earnings downwards, rather than upwards. Accounting techniques that are income increasing could harm the auditors' reputation and increase their litigation risk, besides that auditors face a asymmetric loss function.

Balsam et al. 2003 explain that Big Six firms are more heavily incentivized to protect their reputation than smaller firms. Balsam et al. 2003 explain that auditors who specialize in a certain industry, and thus have more knowledge about the industry characteristics and trends, are better in

detecting earnings management. Further they add by arguing that industry specialization helps the audit firm to improve audit efficiency, through economies of scale, access barriers and also by requiring new entrants to invest in set-up costs.

Kim et al. 2003 extend the work of Becker et al. 1998 by showing that only when managers have incentives for income-increasing accrual choices, Big Six auditors are more effective. When managers prefer income-decreasing choices, Non-Big Six are more effective in detecting earnings management.

In the article of Knechel et al. 2015 reporting styles are linked to individual audit partners. They find support for the hypothesis stating that there exist clear and systematic differences across partners in reporting style: being conservative or aggressive, the latter proxied by a high level of abnormal accruals. Additionally the market reacts to these differences in reporting styles. These results argue that disclosure of the identity of an individual audit partner is informative to users of the financial statements.

#### **2.2.4 Prior literature on audit partner reputation**

The paper of Moizer (1997) examines the preceding literature to find out why some audit firms have higher reputation than others. Users of financial statements find it hard to gain knowledge on whether the financial statements are of high quality. Incorporated in their assessment, is whether the audit firm that performed the audit has a good reputation. Top Tier firms are linked to higher quality audits. The first paper that argues that audit quality is associated with audit size, is the paper of DeAngelo (1981). In this paper they conclude that clients of Top Tier firms have to pay a premium that is a result of good reputation and/or high quality and will convert into higher fees.

Carcello and Li (2013) explain in their article that the disclosure of partner names gives engagement partners a stronger incentive to protect their personal reputation and potential loss of assets, due to audit failure.

Kanagaretnam et al. 2010 examine the association between auditor reputation and earnings management. Further, the article describes two aspects of auditor reputation: auditor size and auditor specialization, as described in Balsam et al. 2003 The results show that the accountant's reputation is significantly linked to earnings management, since there is a higher chance of reputational damage as the auditor has lower acceptance towards income-increasing techniques.

‘Big 6 auditors are likely to face greater publicity in the financial media, and thus they are likely to bear a greater reputation loss, than non–Big 6 auditors.’ (Kim et al. 2003. P. 328) The example of the downfall of the audit firm Arthur Andersen after the Enron scandal, shows that a loss of reputation can be enormous for an audit firm and can put the auditor out of business. (Huang and Li, 2009)

Reid and Youngman (2017) predict that reputation can play the same role for audit partners as reputation already plays a big role for high-performing executives, as well as for analysts who make valuable predictions. Firms build a reputation for audit quality and now, with the disclosure requirement, also individual partners can build a reputation.

Basu and Shekhar (2016) examine auditor reputation in combination with the auditor disclosure requirement in the US. They state in their theoretical exposition that due to higher reputation risk, auditor incentives are changed. My research design is built upon the outcomes of these papers.

### **2.2.5 Prior literature on audit partner gender**

It has been acknowledged in several studies, behavioral economics and psychology that gender-based differences exist. (e.g. Johnson and Powell, 1994; Byrnes et al. 1999) Women act significantly more risk averse (Watson and McNaughton, 2007), more conservative and comply more with law and regulation than men. (e.g. Feingold 1994; Ittonen et al. 2013) With this in mind, researchers are motivated to examine the relationship between female executives and earnings management.

Srindhi et al. 2011 suggest that a gender-diverse board could improve earnings quality. The conducted research by Peni and Vähämaa (2010) shows that female directors are associated with more conservative earnings management strategies.

Additionally, gender research has been done for audit partners in relation to earnings management of their clients. Since previous articles suggest that women in general and in executive functions acting more conservative and risk averse, this should consequently be the case for female audit partners. Indeed the purpose of the article of Ittonen et al. 2013 is to study whether there is a difference between male or female audit partners in the acceptance towards earnings management. Female audit partner are associated with higher levels of discretionary accruals.

Chung and Monroe (2001) perform an experimental research on auditor gender in combination with the audit process. They compared female auditors and male auditors when evaluating an inventory case containing a material misstatement. Complexity was manipulated during the test. Main findings are that women acted more accurate in the complex case than males. This outcome is consistent with the findings of O'Donnell and Johnson (2001). In this article they argue that female auditors exhibit greater efficiency when expressing their audit opinion than males.

Burke et al. 2017 perform an analysis on the association between female audit partners and discretionary accruals of audited firms. They find that there is a significant negative association between female audit partners and discretionary accruals, however this only applies to companies that have been audited by Non-Big Four firms.

### **3. Hypothesis Development**

#### **3.1 Audit partner disclosure in the US and acceptance of earnings management**

As management has the full responsibility over the financial statements, the quality can be compromised due to optimistic behavior. Managers could use the flexibility in financial reporting that is provided by GAAP to convey inside information to the public. To that extent discretionary accruals can provide useful information to investors. When management uses discretionary accruals to overstate or smooth earnings, accounting information is not useful anymore for market participants and audit quality is reduced. (Perotti and Windisch, 2012) Managers may have incentives to report overstated earnings, for reasons as their own bonuses or to provide an opportunistic signal to their investors. As Holthausen (1990) points out contracting theory as the main underlying factor for accounting method choices. The most optimal accounting method will be chosen to deal with agency costs and to obtain the most beneficial outcome in relation to contracting, bonuses and for capital market consequences. It implies that managers can use accounting discretion to manipulate earnings: earnings management. (Christie and Zimmerman, 1994) The main construct for examining whether a company's financial statements are composed using earnings management, is the level of discretionary accruals that is used. Discretionary accruals are adjustments that resolve timing and matching problems between earnings and their underlying cash flows. (Ittonen et al. 2013) High levels of discretionary accruals imply the use of



earnings management. Most articles on earnings management focus on income-increasing accrual techniques. (e.g. Becker et al. 1998; Caramanis and Lennox) Another proxy for earnings management is meeting or beating earnings forecasts made by analysts. Companies tend more likely to just meet earnings forecasts than just miss earnings forecasts. (e.g. Bhojraj et al. 2009) Reasons for meeting or just beating forecasts are: to maintain or even raise the stock price, build credibility in the capital market or to lower the cost of capital. Missing earnings forecasts creates uncertainty about the firm and its prospects (Brown et al. 2006) and can lead to a reduction in the stock price. Therefore companies try to avoid missing analyst forecasts.

Auditors, as well as the board of directors or audit committees can limit the level of earnings management. The central role of auditors is to maintain the integrity of the financial statements, in the sense that stakeholders can base their decisions on financial statements that give a true and fair view of the financial performance of the company. (Christie and Zimmerman, 1994; Ittonen et al. 2013)

Expanding identifiability to investors and society at large by means of a Form AP could change the partner's behavior. Where the auditor already had a job to limit earnings management to appropriate levels and to increase the credibility of the financial statements, a higher level of identifiability likely leads to greater care of the partner. (PCAOB 2009)

Taken into account the potential optimistic behavior of management, knowing that audit partners have direct influence to reduce the level of earnings management and keeping in mind the higher identifiability and visibility of the audit engagement partner, I expect a lower acceptance towards earnings management after audit reports issued on or after January 31, 2017. Therefore, I specify the following hypothesis:

H1: The level of earnings management of clients, accepted by audit partners, will decrease after the implementation of Rule 3211 by the PCAOB.

### **3.2 The mediating effect of reputational risk**

Further, I investigate whether there is a difference in reaction to the requirement, set by the PCAOB, at Big Four accounting firms and Non-Big Four accounting firms. While focusing on the impact for Big Four versus Non-Big Four firms, I also examine the mediating effect of reputation risk, which is repeatedly named in prior literature, but not yet empirically examined in relation to audit partner disclosure.

Large and globally known audit firms have higher expertise, because of more resources, more training, more specialized staff, more investment in information technology (Kanagaretnam et al. 2010) and a global application of audit methodologies. (Francis and Wang, 2008) Thus larger firms are likely better to detect earnings management. Therefore Big Four firms are associated with less earnings management and higher audit quality, as earlier explained and based on several articles (e.g. DeAngelo, 1986; Healy and Wahlen, 1999; Francis and Yu, 2009) Higher quality firms are linked to earnings management, in the sense that Big Four firms are associated with less earnings management, as suggested by Becker et al. 1998.

Through the years, Big Four firms have built a reputation for high quality and are willing to keep this good reputation. Sori and Kharbhari (2006) add to this that Big Four firms are more risk averse than Non-Big Four firms and find it more important not to be associated with public scandals or accounting failures. Knechel et al. suggest (2015, p.34): *'auditor's reputation is a critical aspect of audit quality'*. Building on this quote, I expect that when the auditor's reputation is at risk, the auditor tries to maintain and build its reputation by accepting a lower level of earnings management.

Non-Big Four companies care less about their reputation, because they simply have 'less to lose'. Additionally, Non-Big Four companies have a lower amount of engagement partners and more likely have few audit partners that audit publicly held companies. So their clients or the public know already a large part of the identities of these partners. As a result, they will be less afraid of losing their reputation, when performing a bad audit. (DeAngelo 1981; Abbott, 2017) That is why I argue Non-Big Four audit firms are less impacted by the disclosure rule than Big-Four firms. The gap of earnings management in the financial statements of their clients will therefore widen even further when the requirement is operational. This view supports the outcome of the analytical model of Carcello and Santore (2015), which suggests that the impact of Rule 3211 will be the largest for Big Four audit partners. (Abbott, 2017)

The second hypothesis aims at finding evidence for the mediating effect of increased reputation risk of the audit partner when his or her identity is publicly known. Before implementation of the audit partner disclosure requirement there already was a difference in the level of earnings management, due to difference in reputation risk. Now reputation is more at risk, so I expect that this gap will widen.

Therefore, I specify the following hypothesis:

H2: Big Four audit firms react more pronounced to the audit partner disclosure requirement, compared to Non-Big Four firms, resulting in a greater difference in the acceptance of earnings management between Big Four and Non-Big Four firms after implementation of PCAOB's Rule 3211.

### **3.3 Audit partner disclosure and gender of the engagement partner**

This research argues that the effect of partner disclosure on earnings management is greater for male audit partners than female audit partners, due to the fact that female audit partners were already, before the partner identity disclosure requirement, more diligent and conservative. (Chung and Monroe (2001; O'Donnell and Johnson, 2001; Ittonen et al. 2013) Prior to the implementation of the reporting obligation of the audit partner's identity, there already was a difference or a gap in the level of earnings management between male and female audit partners. This is due to the difference in risk appetite or women who are more conservative. Big Four audit firms are more conservative and less associated with discretionary accruals because of their more advanced capabilities and resources and also because they are afraid of losing their reputation. Female audit partners are associated with higher audit quality in prior literature, because they are more conservative by nature. (e.g. Watson and McNaughton, 2007) Reputation is not necessarily the driving force for female audit partner to be risk averse in their audits. I state that male partners will become more conservative than when the audit report have to be signed without their identity being revealed to the public. Additionally, I presume that female audit partners follow more of the same conservative tolerance for earnings management, or decrease their acceptance a little. Taken this together, my research expects that the difference will become smaller in the acceptance towards earnings management.

Thus, I formulate the following hypothesis:

H3: Male audit partners react more pronounced to the audit partner disclosure requirement, compared to female audit partners, resulting in a smaller difference in the acceptance of earnings management between male and female audit partners after implementation of PCAOB's Rule 3211.

#### **4. Research Design**

The predictive validity framework, or Libby Boxes, is presented in the Appendix, Table 1. For the hypothetical testing, I run a regression on a sample with audit reports issued on or after January 31, 2017 and before June 30, 2017 as well as signed within the same time frame. To compare the level of earnings management of these selected companies, before and after the mandated audit partner identity disclosure, I use a disclosure period of the rest of the year 2017 and a pre-disclosure period of two years before implementation. As primarily used in literature on earnings management (e.g. Healy and Wahlen 1999; Kim et al. 2003; Kanagaretnam et al. 2010), I use the level of absolute discretionary accruals, to capture the joined effect of possible income-increasing and income-decreasing discretionary accruals. The use of discretionary accruals is also consistent in available literature that examines earnings management or audit quality in combination with audit partner disclosure or mandated audit partner signature requirements. (e.g. Caramanis and Lennox, 2008; Cunningham et al. 2017; Burke et al. 2017; Chang et al. 2016). Furthermore, I perform an analysis using another well-known proxy for earnings management: meeting or beating analysts' forecasts, which is substantively used in literature on earnings management in combination with audit partner identity disclosure (e.g. Blay et al. 2004; Cunningham et al. 2017) as well as in relation to other concepts. (Graham et al. 2005; Cheng and Warfield, 2005; Caramanis and Lennox, 2008)

##### **4.1 Discretionary accruals**

There are many ways to calculate discretionary accruals, as described in prior literature. However, the best way to estimate discretionary accruals is the Jones Model (Jones, 1991) and the Modified Jones Model, as reported by Dechow et al. 1995. For my analysis I use the Jones model together with, as suggested by Kothari et al. 2005, last year's Return on Assets (ROA) to be able to control for the effect of the performance that could affect the discretionary accrual values. To control for the effect of performance on discretionary accruals can be done in two ways. One approach is that each firm can be linked to another firm in the same industry, based on the nearest ROA. This methodology is known as the performance-matched approach. For this research I choose the other approach, known as the regression-based approach. This approach entails adding last year's ROA as a control variable to the Jones model, using the following formula:

$$TA_{t-1} = a_1 * \left(\frac{1}{A_{t-1}}\right) + a_2 * \Delta REV_{t-j} + a_3 * PPE_{t-j} + a_4 * ROA_{t-j} + \varepsilon_{t-j} \quad (\text{for } j=1 \dots k)$$

$$NDA_t = A_1 * \left(\frac{1}{A_{t-1}}\right) + A_2 * \Delta REV_t + A_3 * PPE_t + A_4 * ROA_t$$

$$DA_t = TA_t - NDA_t$$

The above formula for calculating discretionary accruals is used for firm observations in every two-digit SIC industry code in the same year, for each industry that has at least ten observations, following Cheng and Warfield (2005). The higher the value of absolute discretionary accruals, the higher the level of earnings management, and the lower the quality of the financial statements.

#### 4.2 Meeting or beating analyst forecasts

The meeting or beating analyst forecasts is calculated by subtracting forecasted quarterly EPS of actual quarterly EPS, following the paper of Caramanis and Lennox (2008). Afterwards, I compose a dummy variable that is equal to one if the earnings surprise is between 0 and 0.01 and zero otherwise.

#### 4.3 Regression model for testing H1

For the regression equations when testing the first hypothesis, I use the following models:

DACC=

$$\alpha_0 + \alpha_1 * \text{Disclosure} + \alpha_2 * \text{LnAssets} + \alpha_3 * \text{Loss} + \alpha_4 * \text{MB} + \alpha_5 * \text{CashFlow} + \alpha_6 * \text{Litigation} + \alpha_7 * \text{BIG4} + \alpha_8 * \text{Public} + \alpha_9 * \text{Male} + \alpha_{10} * \text{Specialist} + \alpha_{11} * \text{Issue} + \alpha_{12} * \text{restate} + \text{industry fixed effects} + \varepsilon$$

(1)

MeetBeat=

$$\beta_0 + \beta_1 * \text{Disclosure} + \beta_2 * \text{LnAssets} + \beta_3 * \text{Loss} + \beta_4 * \text{MB} + \beta_5 * \text{CashFlow} + \beta_6 * \text{Litigation} + \beta_7 * \text{BIG4} + \beta_8 * \text{\#Analysts} + \beta_9 * \text{Male} + \beta_{10} * \text{Specialist} + \beta_{11} * \text{Issue} +$$

$$\beta_{12} * \text{Restate} + \text{industry fixed effects} + \varepsilon$$

(2)

The main independent variable, Disclosure, is a dummy variable that equals to one when the observations are during the audit partner disclosure period. As control variables I use several variables that are known to be associated with earnings management and thus widely used in prior literature. I expect to see a negative coefficient for the main independent variable, Disclosure, since I argue that audit partner become more conservative and accept less earnings management, when their names are identifiable by the intended users of the financial statements. LnAssets (e.g. Caramanis and Lennox, 2008; Blay et al. 2014) is a proxy for company size. Based on Abbott, 2017 I use the natural logarithm of total assets and I predict a negative sign, because the larger the size of the firm usually the lower the use of earnings management. Loss as a variable representing the financial condition of the company (e.g. Blay et al. 2014; Burke et al. 2017), coded as one when quarterly EPS is below zero and zero otherwise. For the variable Loss I predict a negative relation towards earnings management as companies with negative cash flows from operations have less incentives to use earnings management. The market-to-book ratio is added as a control variable, which is also widely used in earnings management literature to control for market value. A higher market-to-book ratio is presumably associated with higher levels of accruals and meeting or beating earnings forecasts. (e.g. Burke et al. 2017; Kalunki et al. 1998) Also, the model is expanded with Cash Flow from operation, divided by the lagged value of total assets. I predict a negative association. Intuition behind this is the same as for the Loss variable. Also added to the model: Litigation, which indicates whether a firm operates in a litigious industry, based on the article of Francis et al. 1994. Companies that operate in litigious industries are using on average lower levels of earnings management. I use a variable Issue to show whether there was such an event as a Seasoned equity offerings or an Initial Public Offering event. As explained in section 5 Sample Selection, I use only public companies for model 2 and a sample containing both public and private companies for the analysis of model 1. Obviously companies in the Public company sample could just have SEO's, because they already went public. SEO's (Cohen and Zarowin, 2010) and IPO's (e.g. Teoh et al. 1998; Caramanis and Lennox, 2008) are probably positively related with earnings management. Based on these articles, equity issuing raises the tendency of overstating earnings to increase the belief of potential investors. Multiple other

dummy variables are added: one representing material restatements (e.g. Burke et al. 2017). Companies that have material misstatements are associated with higher earnings management. A dummy variable equals one when the company is audited by a Big Four audit firm or equal to zero when audited by a Non-Big Four firm is added (e.g. Abbott, 2017; Caramanis and Lennox, 2008; Burke et al. 2017). It is an accepted fact that financial statements that are audited by Big Four firms are of higher quality, as explained in section 3.2, so I predict a negative sign. A dummy variable equal to one is included when the audit engagement partner is male, or zero if the engagement partner is female. (e.g. Cianci et al. 2017; Ittonen et al. 2013; Peni and Vähämaa, 2010) As described in section 3.3 male audit partners conduct financial statements that have, on average, higher level of earnings management, so I predict a positive sign. For analysts that are following a certain company in the meeting or beating analyst model, I expect a positive sign based on (Cheng and Warfield, 2005; Cunningham et al. 2017), as analysts put more pressure on managers to meet those forecasts. Also a dummy variable is included in model 1 as an observation being from a public or private company, where discretionary accruals are the dependent variable. The variable equals one when the observation is for a public company, zero for being a private company. For the variable Public I do not predict the sign, because of mixed theories relating to this control variable. The variable can have a negative association because capital markets screen out companies, which have earnings numbers of lower quality, as explained by Caramanis and Lennox (2008). On the other hand, the variable Public can have a positive association with earnings management, because management want to have the best possible stock performance. Following Balsam et al. 2003 I add industry expertise to my model as a control variable. Industry expertise, or industry specialist in my model is based on the market share approach as explained in the article of Jiang et al. 2012. The proxy is based on the number of clients per audit firm per industry. Further I define the audit specialist as having the largest market share in a given industry, which is the relative audit specialist measure. (Jiang et al. 2012) In the article of Balsam et al. 2003 and Krishnan (2003) findings suggest that auditors that are industry specialists have significantly lower levels of absolute discretionary accruals than auditors that are non-specialists, because they have more knowledge of a specific industry and thus will be more effective in auditing. Thus, I predict a negative sign for the control variable industry specialist. As a robustness check I include industry fixed effects, because companies from a wide range of industries are included in both samples. This is added to reduce the likelihood that my results are

confounded by industry-specific characteristics. Industry-fixed effects included in the model are based on a two-digit SIC code level. (e.g. Carcello and Li, 2013) For a complete overview of all the variables, I refer to Table 4 of the Appendix: Variable Definitions.

After performing the analyses for the first hypothesis, which is more general in nature, I conduct two additional regressions, examining two phenomena: the difference in earnings management of clients of Big Four versus Non-Big Four firms and the difference between clients of male and female audit partners. In relation to the audit partner identity disclosure requirement this implies an expansion of the already available literature.

#### **4.4 Regression model for testing H2 and H3**

The models for testing of both hypothesis 2 and 3 are similar to each other. Because I examine the difference in earnings management between two groups, before and after the implementation of Rule 3211, I use a difference-in-difference research design. Normally, a difference-in-difference design is chosen because a research has two different groups: one that undergoes a treatment and one that does not get the treatment. The latter group functions as a control group. In this research setting both groups will receive the same treatment. Big four audit firms, as well as Non-Big Four audit firms have to file a Form AP to the PCAOB. The same holds for testing hypothesis 3. Both male audit partners and female audit partners have to file a form AP. However, I assume that there is, before the audit partner disclosure, a gap in the acceptance towards earnings management between Big Four firms and Non-Big Four firms and between male and female audit partners. This assumption is based on prior literature, as elaborated respectively in sections 2.2.4 and 2.2.5 of this thesis. This research suggests that the new identity disclosure requirement will have a more pronounced effect on Big Four firms, due to reputation risk. Because literature shows that Big Four firms already accepted lower levels of earnings management, the gap between Big Four and Non-Big Four firms will be larger in the post period. In Appendix Table 2 an explanatory table is presented covering the reasoning for the second hypothesis. I expect to see a significant negative regression coefficient. Following DeAngelo (1981), auditor size is used as a proxy for auditor reputation. A negative coefficient will be viewed as a proxy for increased reputation risk.

In Appendix Table 3 an explanatory table is presented covering the reasoning for the third hypothesis. Just as for the second hypothesis I predict a significant negative regression coefficient,



as I expect to see a greater effect for male audit partners, resulting in a smaller gap between male and female audit partners in terms of earnings management.

With a difference-in-difference design, I minimize the impact of confounding events relating to earnings management in both time periods. I will use the following model, as regression equation for testing the second and third hypothesis:

$$\begin{aligned} \text{DACC} = & \\ & \alpha_0 + \alpha_1 * \text{Treatment} + \alpha_2 * \text{POST} + \alpha_3 * \text{Treatment} * \text{POST} + \alpha_4 * \text{Controls} + \\ & \text{industry fixed effects} + \varepsilon \end{aligned} \tag{3}$$

$$\begin{aligned} \text{MeetBeat} = & \\ & \beta_0 + \beta_1 * \text{Treatment} + \beta_2 * \text{POST} + \beta_3 * \text{Treatment} * \text{POST} + \beta_4 * \text{Controls} + \\ & \text{industry fixed effects} + \varepsilon \end{aligned} \tag{4}$$

Where Treatment is equal to 1 for companies that are audited by a Big Four audit firm for testing hypothesis 2, and 0 for companies that are audited by Non-Big Four audit firms. POST is equal to 1 when the audit partner disclosure requirement is active and 0 when the disclosure requirement was not implemented and thus the identity of the audit partner was not yet identifiable for the public. Treatment\*POST is the interaction term, the coefficient of interest and has for testing the second hypothesis the following form: Big4\_Disclosure. Controls are all the control variables in model 3 and in 4 are the same as for model 1 and 2, except for the variables BIG4 and Female. The model for testing hypothesis 3 is similar to the model for hypothesis 2. Except for, Treatment is equal to 1 for companies that are audited by a male audit partner and equal to 0 for companies that are audited by a female audit partner. POST is the same as in model 1 and 2. The coefficient of interest for testing the third hypothesis has the following form: Malepartner\_Disclosure. Similarly, industry-fixed effect is added as a robustness-check.

## 5. Sample selection

The data gathering for this thesis starts at the AuditorSearch database, provided by the PCAOB. A dataset is obtained from this database that consists of 11,000 observations from public and private companies that all filed a Form AP to the PCAOB. As long as the databases used provide the data, I use quarterly data for all the variables. This research uses especially quarterly data for the variables that are used to calculate discretionary accruals and the meeting or beating earnings forecasts variable. An overview of the sample selection process is shown in Table 2. First, I delete observations of companies that were not based in the US. Next, I eliminate observations of companies that had Form AP filings that were not filed between January 31, 2017 and June 29, 2017. Since this period covers the time frame for the importance of testing the impact of the audit partner disclosure solely, while excluding the potential effect of audit participants. And I delete companies that changed from auditor firm during 2015-2017, which could be found on AuditorAnalytics. Also I exclude Form AP filings that are from the same company, so company duplicates and financial services companies, as usually done in literature on earnings management.

Then I start with the collection of all the financial statement information that is necessary for calculation of the discretionary accruals, the meeting or beating variable, as well as for some of the control variables. Most of the financial statement information for the public companies is retrieved from Compustat, while the information that is not available on Compustat as well as the information for the private companies is from CapitalIQ<sup>2</sup>. The merging of the different databases is done based on FormFilingID and I omit observations that have missing values for one of the variables.

Then I export the database towards STATA and transfer the data to panel data. To control for the effect of outliers I do the following, based on Kothari et al. 2001. Instead of winsorizing the continuous variables at the top and bottom 1%, observations of which the absolute value of total accrual scaled by lagged total assets is greater than one, are excluded from the sample. Then I calculate the absolute value of discretionary accruals and generate the dummy variables. I end with an unbalanced data set that consists of 8703 company-quarter observations for the Full

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<sup>2</sup> A Public company is a company that has issued tradable securities in either debt or equity markets. I use the division between public and private companies, based on CapitalIQ.

sample and when eliminating private companies of the sample, I end with 8,013 company-quarter observations for the Public company sample.

Table 2. Sample selection	
Preliminary dataset from AuditorSearch	11,000
- Companies that are not US based	(2,441)
- Companies that had Form AP filings that were not between January 31, 2017 and June 29, 2017	(4,767)
- Companies with auditor changes	(907)
- Companies that are between Industry code 6000-6999	(344)
- Company duplicates	(27)
- Missing values	(1,587)
Company-quarter observations	11,124
- Company-quarter observations of which total accruals/lagged assets is larger than 1	(2,421)
Company-quarter observations for the Full sample	8,703
- Company-quarter observations from private companies	(690)
Company-quarter observations for the Public company sample	8,013
This Table gives an overview of the sample selection process. The sample selection process started at AuditorSearch and after eliminating it ends with 8,703 observations for the Full sample and 8,013 observations for the Public company sample.	

## 6. Empirical results

### 6.1 Descriptive statistics

In table 3 Panel A, the descriptive statistics of the full sample are presented. The full sample is used for the regressions of model 1 with discretionary accruals as dependent variable for testing hypothesis 1 and later model 3 for testing hypothesis 2 and 3. In this table the mean, standard deviation, median and the 25<sup>th</sup> place and the 75<sup>th</sup> place are tabulated for each variable.

Next, the mean, sd and median are given for each variable within the disclosure period and before the disclosure period, following by the difference in the means. The level of discretionary accruals is lower in the period of the audit partner identity disclosure, although not significantly different. The mean value of the natural log of assets is significantly higher in the period without audit disclosure requirement, assuming that the average level of total assets for companies is higher in the period of the sample, when audit partner identity disclosure was not yet implemented. Due to the large set of dummy variables added to the regression model, the 25<sup>th</sup> place, the median and the 75<sup>th</sup> place are not filled in for these variables. On the other hand the mean value for these values are especially interesting. 44% of the full sample presented losses, 35.1% operates in a litigious industry, 62% are audited by a Big Four audit firm, 89% are public companies, 81% are audited by a male engagement partner, 19.9% is audited by a specialist auditor, 21.6% of the companies issued equity in the timeframe of the sample, being an IPO or an SEO and lastly, 12.6% of the companies from the full sample had a significant restatement. Looking at the difference in means for these dummy variables, two items attract specially my attention. During the period with audit partner disclosure there are 4.1% more companies that issued equity and there were 19.6% less companies that had a significant restatement. These differences in means are statistically significant at the p-level of 0.01. One of the reasons for the differences in means for the IPO variable could be that companies are more likely to issue equity or do an IPO, when there is a higher level of accountability due to the fact that the audit partner name is public. The publicly available audit partner name could be a credible signal for high-quality earnings numbers towards (potential) investors, as described in Aobdia et al. 2013. In this article they link higher quality audit partners to capital market consequences. For example they see that there is lower underpricing when a high quality audit partner audits the financial statements. Further it is likely to see fewer restatements in the period when the disclosure requirement was active. A restatement tarnishes the reputation of the audit partner, especially when the name of the engagement partner is visible by means of the Form AP. This phenomenon is examined by Chang et al. 2016 using a sample of Taiwanese companies. In Taiwan the audit partner is mandated to sign the audit report. The authors find results indicating that the probability of restatements is significantly higher in the period before the audit partner was mandated to sign.

In Panel B, the descriptive statistics for the Public company sample is given, which contains 89% of the observations out of the full sample. The percentage of companies that meet or

beat analyst forecasts is lower for the sample with audit partner disclosure than without. This difference is statistically lower than zero. The difference in means for the variables, respectively Issue and Restate are again statistically higher and lower than zero. Presumably for the reasons stated above.

When looking at the differences between the Full sample and the Public company sample, no major differences can be observed. On average, companies in the full sample have a larger amount of Total assets, but the Public company sample has on average (of course) a larger market-to-book ratio, more companies that have to cope with losses and also have larger negative cash flows from operations. Further, the percentage of companies that operate in litigious industries in the public company sample is larger and the amount of companies that are audited by specialists is higher. These differences are logical and consistent with prior literature that uses two different samples, based on public and private companies. Therefore, I conclude by saying that the samples are randomly drawn from the population and represent realistic differences in the variables used for the regression and do not cope with the possibility of a selection bias.

Table 3. Descriptive statistics. Panel A: Full sample with and without disclosure

Variables	Full sample (N=8,703)					Without audit partner disclosure (N=5,576)			With audit partner disclosure (N=3,127)			Difference in means
	Mean	SD	P.25	Median	P.75	Mean	SD	Median	Mean	SD	Median	
DACC	0.074	0.184	0.0092	0.024	0.061	0.075	0.187	0.024	0.072	0.18	0.024	-0.003
Disclosure	0.359	0.480										
LnAssets	5.82	2.945	3.919	6.254	7.889	5.780	2.963	6.22	5.895	2.914	6.324	0.12**
Loss	0.440	0.496				0.440	0.497		0.432	0.495		-0.019*
MB	2.285	1.328	0.8333	1.928	3.945	2.216	1.055	1.819	2.408	1.710	2.017	0.193
CashFlow	-0.02	0.232	-0.014	0.012	0.032	-0.023	0.210	0.013	-0.03	0.268	0.011	0.004
Litigation	0.351	0.477				0.350	0.477		0.351	0.478		
Big4	0.620	0.485				0.620	0.485		0.620	0.486		
Public	0.890	0.313				0.887	0.316		0.894	0.307		0.01
Male	0.810	0.393				0.810	0.393		0.810	0.395		
Specialist	0.199	0.399				0.200	0.40		0.196	0.397		-0.003
Issue	0.216	0.411				0.201	0.401		0.242	0.429		0.041***
Restate	0.126	0.332				0.197	0.397		0.001	0.036		-0.195***

Variables	Public company sample (N=8,013)					Without audit partner disclosure (N=5,089)			With audit partner disclosure (N=2,924)			Difference in means
	Mean	SD	P.25	Median	P.75	Mean	SD	Median	Mean	SD	Median	
MeetBeat	0.062	0.241				0.065	.247		0.054	.226		-0.011**
Disclosure	0.365	0.445										
LnAssets	5.583	3.193	3.718	6.068	7.736	5.533	3.181	6.069	5.584	3.226	6.130	0.05
Loss	0.455	0.498				0.457	0.498		0.449	0.498		-0.008
MB	2.47	1.792	0.98	2.04	4.15	1.48	1.901	1.99	3.72	1.463	2.16	2.24
CashFlow	-0.32	6.191	-0.022	0.012	0.033	-0.295	5.443	0.011	-0.37	7.848	0.012	-0.074
Litigation	0.372	0.483				0.372	0.483		0.372	0.483		
Big4	0.624	0.484				0.623	0.485		0.626	0.484		
#Analysts	6.3	7.7	0	3	9	6.3	7.7	3	6.1	7.6	3	0.2
Male	0.815	0.388				0.815	0.388		0.814	0.389		
Specialist	0.203	0.402				0.204	0.403		0.201	0.401		0.003
Issue	0.211	0.408				0.203	0.402		0.232	0.422		0.029***
Restate	0.126	0.331				0.172	0.378		0.001	0.037		-0.17***

This table contains descriptive statistics: Panel A for the Full sample and Panel B for the Public company sample. For both panels: first the mean, sd, 25<sup>th</sup> place, median and 75<sup>th</sup> place are tabulated for all the observations, followed by the mean, median and sd of the observation and without Disclosure separately and the difference between with and without audit partner disclosure. The first variable is one of the dependent variables: the absolute level of discretionary accruals. The second variable is Disclosure, which is the main independent variable, followed by the all control variables. The differences of both means are presented with symbol for significance: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1, for an one-sided t-test.

## 6.2 Correlation matrix and OLS assumptions

Prior to the regression analyses, the OLS assumptions have to be met in order to get results without biases. In Table 4 the correlation matrix can be found, presenting the correlation coefficients of all variables. The correlation matrix is useful to determine to which extent the variables that are used in this thesis are correlated to each other. While the independent variables have to be correlated to dependent variable, the independent variables that are highly correlated to each other raise the threat of multicollinearity. Among the independent variables, the coefficient Ln\_Assets has the highest correlation to the other explanatory variables. For that reason, a Variance Inflation Test is performed. The test results show no values that exceed the rule of thumb, which is normally used to indicate multicollinearity in prior literature. The variable with the highest VIF test coefficient is Ln\_Assets, with a test result of 2.55. Besides a Variance Inflation Test, a Modified Wald test is used to test for heteroscedasticity. The underlying OLS assumption states that the error term should have a constant variance. The test statistic of the Modified Wald test shows that the error term is not constant, meaning that heteroscedasticity exists. By means of a Wooldridge test, autocorrelation is tested. The test statistic of this test shows autocorrelation exists in the sample, which means that unobserved components are correlated with observations within the sample. Because I have to deal with both autocorrelation and heteroscedasticity, I have two options. One is to perform a random effects model, which is in my case not the most appropriate way because I want to add industry fixed effects as a robustness check. So standard errors in the OLS regression are clustered around firm number, which deals with both autocorrelation and heteroscedasticity robust as well. Further, the continuous variables are checked whether they have a normal distribution. According to the central limit theorem, the results could be interpreted without any difficulty. The central limit theorem states that sampling distribution tends to be normal when having a large sample and/or a random sample taken from the whole population, regardless of the shape of the data, as stated in Ghasemi and Zahediasl (2012).



Table 4. Correlation matrix, full sample

	DACC	Meet-Beat	Disclosure	Ln_Assets	Loss	MB	Cash Flow	Litigation	Big4	#Analysts	Male	Specialist	Issue	Restate	Public
DACC	1														
MeetBeat	0.005	1													
Disclosure	-0.011	0.009	1												
LnAssets	-0.322*	-0.02*	0.001	1											
Loss	0.150*	-0.27*	-0.013	-0.476*	1										
MB	-0.021	0.003	0.007	0.007	-0.00	1									
CashFlow	-0.653*	0.005	-0.019	0.172*	-0.030*	0.004	1								
Litigation	0.125*	-0.16*	0	-0.144*	0.199*	-0.017	-0.012	1							
Big4	-0.026*	-0.04*	0	0.014	0.009	0.008	-0.014	-0.001	1						
#Analysts	-0.120*	-0.24*	-0.012	0.581*	-0.2*	0.007	0.02*	0.057*	0.02*	1					
Male	0.033*	-0.03*	0	-0.02*	0.033*	-0.002	-0.003	0.003	-0.0*	0.06*	1				
Specialist	-0.014	-0.01	0	-0.00	-0.025*	0.006	0.002	-0.02*	0.4*	-0.01	0.005	1			
Issue	-0.028*	-0.10*	0.04*	0.247*	0.052*	-0.006	0.014	0.02*	-0.01	0.26*	0.021*	0.004	1		
Restate	-0.041*	-0.12*	-0.26*	0.146*	-0.043*	0.02*	0.01	-0.035*	0.002	0.17*	0.013	0.009	0.042*	1	
Public	0.036*	-0.44*	0	0.026*	0.125*	0.011	-0.007	0.178*	0.04*	0.23*	0.082*	0.0194*	0.067*	0.075*	1

This Table presents the correlation matrix including all variables that are used for the regression. This Table includes variables of both model 1, the accrual based model and for model 2, the meeting or beating model. All coefficients are presented with significance: \* p<0.5, all two-tailed.

### **6.3 Multivariate regression analyses- audit partner disclosure and earnings management**

Table 5 reports the regression results for testing the first hypothesis, which predicts a lower level of earnings management after implementation of the audit partner disclosure regulation. Column 1 presents the regression results using the full sample and discretionary accruals as the dependent variable. Column 2 adds industry-fixed effects to this regression model. Column 3 presents the regression results using the public company sample with meeting or beating as the dependent variable. Column 4 adds again industry-fixed effects. The R-squared increases for both models when industry-squared effects are added to the model. Put differently, the first two columns show the results based on model 1 and the two last columns for model 2.

The main independent variable Disclosure, which is an indicator variable equal to 1 when the disclosure requirement is implemented, is in all cases negative. In the full sample, with discretionary accruals as the dependent variable, the coefficient is negative and significant at a 0.05 significance level (-0.009\*\*). In the period of audit partner disclosure, discretionary accruals decrease with 0.9 units, *ceteris paribus*. When adding industry-fixed effects, the effect on discretionary accruals becomes less, but stays significant (-0.006\*\*). In model 2 the coefficient for disclosure is significant and negative (-0.014\*\*), suggesting that the level of meeting or beating analyst forecasts is on average 1.3 units lower than before the audit partner disclosure requirement, holding all other variables constant. This result holds when adding industry-fixed effects to the model (-0.014\*\*). These results together suggest that there are less discretionary accruals used in earnings numbers reported after implementation of the disclosure requirement and there are less companies that meet or just beat analyst forecasts after implementation. According to these results I fail to reject the first hypothesis, which says that the level of earnings management of companies will decrease after the implementation of Rule 3211 by the PCAOB. Conclusively, the results show the use of less earnings management, when the audit partner disclosure requirement is active, as expected from analyzing prior literature on audit partner disclosure.

The rest of the variables are control variables, each will be discussed in this part. The natural log of total assets, which is a firm size proxy, shows in all columns a negative and significant coefficient, *ceteris paribus*. Column 3 and 4 give the strongest and most significant reaction (-0.013\*\*\* and -0.014\*\*\*). This suggests that larger companies are in general engage in less earnings management compared to smaller companies. This finding is consistent with prior

literature. (e.g. Burke et al. 2017) Negative and significant coefficients are shown in Table 2 for the variable Loss (-0.013\*\*\*, -0.029\*\*\*, -0.131\*\*\*,-0.138\*\*\*). Indicating that companies that have a negative net income engage in less earnings management, holding all other variables constant. Regression coefficients for the market-to-book ratio are not significant and give mixed results. Due to mixed results, these variables are hard to interpret. Although results for the Cash Flow variables show mixed signs, they are highly significant at a 0.01 significance level and negative for the accrual-based model (-0.514\*\*\*, -0.488\*\*\*), suggesting that companies with larger cash flows from operations have less discretionary accruals, ceteris paribus. Results for the variable that represents litigious industries, show significantly positive results in the accrual-based model (0.030\*\*\*, 0.077\*\*\*), which means that these kinds of industries have higher level of discretionary accruals, ceteris paribus. Taking together the mixed results for the meet or beat model, there is not enough evidence to draw conclusions for this variable. The variable for Big Four gives no significant results, although they all have negative signs (-0.006, -0.004, -0.005, -0.006). These results suggest that Big Four firms are associated with less earnings management, which is in line with prior literature and probably due to the reputation reasons as explained in Section 3.2. Since the coefficients representing public companies indicate significantly more earnings management used in the financial statements, but are non-significant, no conclusions could be drawn from these results. Same goes for the Specialist control variable, which seems to suggest that companies audited by specialist auditors use less earnings management, but are not significant. The coefficient for Male audit partner in the discretionary accruals model with industry fixed effects (0.014\*) indicates that companies audited by male audit partners significantly have higher levels of discretionary accruals, holding all other variables constant. Further the other coefficients for Male partners are negative, although not significant. The coefficients for equity issue are non-significant for the accrual-based model, but are significant and positive for the meet or beating model (0.022\*, 0.021\*). These results suggest that companies engage in more earnings management when issuing equity, this is also consistent with available literature, explained in 4.3. Furthermore, companies having significant restatements show lower levels of discretionary accruals, which is only significant in column 1 (-0.018\*\*). The last coefficient in this model is analyst following, which is only added in the Public company model. The results (-0.001, -0.002\*) indicate that when more analysts follow the company, this is associated with lower levels of meeting or beating the forecasts of those analysts, holding

everything else constant. This result is not in line with prior literature that more analysts raise the pressure on management to meet or beat the forecasts.

Table 5. Regression results. Earnings management and audit partner disclosure				
	DACC (1)	DACC (2)	MeetBeat (3)	MeetBeat (4)
Disclosure	-0.009** (0.003)	-0.006** (0.003)	-0.014* (0.007)	-0.014** (0.007)
LnAssets	-0.006* (0.003)	-0.005** (0.002)	-0.014*** (0.003)	-0.013*** (0.003)
Loss	-0.013*** (0.003)	-0.029*** (0.005)	-0.131*** (0.013)	-0.138*** (0.014)
MB	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Cash Flow	-0.514*** (0.069)	-0.488*** (0.063)	-0.001*** (0.000)	-0.001** (0.001)
Litigation	0.030*** (0.008)	0.077*** (0.022)	0.010 (0.010)	-0.012 (0.022)
Big4	-0.006 (0.008)	-0.004 (0.007)	-0.005 (0.011)	-0.006 (0.011)
Public	0.010 (0.008)	0.003 (0.008)		
Male audit partner	0.004 (0.009)	0.014* (0.007)	0.005 (0.013)	0.016 (0.014)
Specialist	-0.014 (0.010)	-0.009 (0.008)	-0.019 (0.015)	-0.013 (0.016)
Issue	0.004 (0.004)	-0.012 (0.007)	0.022* (0.012)	0.021* (0.012)
Restate	-0.018** (0.007)	-0.003 (0.005)	-0.017 (0.012)	-0.019 (0.012)
#Analysts			-0.001 (0.001)	-0.002* (0.001)
Constant	0.090*** (0.021)	0.126*** (0.016)	0.231*** (0.026)	0.234*** (0.026)
Observations	8,703	8,703	8,013	8,013
R-squared	44.2%	53.5%	4.0%	6.3%
Industry FE	No	Yes	No	Yes
Number of Form Filing ID	843	843	753	753
This table contains regression results for the first hypothesis. Column 1 and 2 represent coefficients for model 1 using discretionary accruals as dependent variable, whereas column				

3 and 4 represent coefficients for model 2 using meeting or beating analyst forecasts. Variable definitions can be found in the Appendix Table 2 All coefficients are presented with significance: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ , all two-tailed. Column 1 and 3 are without industry-fixed effects, column 2 and 4 with industry-fixed effects.

#### **6.4 Multivariate regression analyses- audit partner disclosure and reputation risk**

The second hypothesis of this study predicts that Big Four audit firms react more pronounced to the audit partner disclosure requirement than Non-Big Four firms, so that the difference in the acceptance of earnings management between Big Four and Non-Big Four firms is greater after implementation.

Based on prior literature, I assume that the acceptance of the level of earnings management prior to the disclosure requirement is lower for Big Four firms than for Non-Big Four firms. The results in section 6.2 indeed show that the association between earnings management of companies and the auditor being a Big Four firm is negative, so Table 5 confirms the assumption. The coefficients for the variable Disclosure also are all negative, indicating that earnings management is lower in the period that engagement partners have to file a Form AP. These findings are put together in the difference-in-difference regression, testing hypothesis 2. The choice for the difference-in-difference research design is elaborated within section 4.3. The coefficient of interest is used as a proxy for reputation risk. There was not yet literature available that empirically examined the link between audit partner disclosure regulation and reputation risk. However, available theoretical literature suggests that this potential link does exist. When the coefficient of interest gives a negative value, I interpret this as higher reputation risk. Table 6 tabulates the regression results for the second hypothesis, where the coefficient of interest is Big4\_Disclosure. The coefficients in both models, with discretionary accruals or meeting or beating analyst forecasts as the dependent variable, are all negative as predicted. However, this negative coefficient is non-significant in each case. So results do suggest that Big Four firms decrease their acceptance towards earnings management when they have to file a Form AP. As also tabulated in Table 6, the negative coefficient suggests higher reputation risk. Unfortunately all the results are non-significant, meaning that I cannot draw conclusions, due to insufficient evidence.

As a result of these findings, I reject the second hypothesis, as stated in section 3.2. The second hypothesis is not supported, as there is not enough evidence to conclude that Big Four firms are significantly more impacted by Rule 3211 and that there is a wider gap in relation to

Non-Big Four firms after implementation of the audit partner identity disclosure requirement. The small coefficients and the fact that they are all non-significant could also mean that the level of earnings management was already low. As described the papers of Kanagaretnam et al. 2010 and Francis and Wang, 2008 Big Four firms have more resources, training, specialized staff and use sophisticated audit methodologies. So the level of earnings management of their clients is already low. Moreover, reputation risk could be already so high for Big Four firms, that there is no significant result after implementation of Rule 3211. So potentially, the new disclosure requirement has not a significant influence on Big Four firms, because building and maintaining a good reputation is already key for Big Four firms. They are heavily incentivized to protect their reputation, suggested by Balsam et al. 2003. As elaborated in the article of Cunningham et al. 2017, the accountability of audit partners is already at such high levels that the coefficients of this model do not show significant results. Further, it could be the case that the size of the audited company can play a crucial role. Potentially this research could get other results, when looking at the size of the audited company instead of the auditor size. Blay et al. 2014 explains that the engagement partner has a more significant role in the audit of a smaller company compared to the audit of a larger company. The non-significant results could be due to the clustered standard errors. As explained in Section 6.2 the model has to cope with both autocorrelation and heteroscedasticity. I use clustered standard errors around firm level to deal with both issues. However, it has been acknowledged that because of the larger standard deviation of the estimators less results become significant.

The same control variables, as for the first hypothesis are added to the model. When looking at the coefficients for the control variables in Table 6, I do not observe any big changes. Only the largest changes are discussed. The Male variable becomes more significant (0.014\*\*\*), but has the same value as before in the accrual-based model, still indicating that male audit partners are associated with more earnings management, *ceteris paribus*. The coefficients for the Specialist variable are all negative. This variable gives a significant result in the accrual-based model with industry-fixed effects (-0.008\*\*), which indicates less discretionary accruals used when a specialist auditor audits the financial statements, *ceteris paribus*. The issue variable gives all positive results, which are significant at a significance level of 0.01 in column 2 and 3 (0.012\*\*\*, 0.024\*\*\*) and at a significance level of 0.05 in column 4 (0.015\*\*). All coefficients are suggesting more earnings management when issuing equity, holding all variables constant.

Table 6. Regression results. Earnings management and reputation risk with audit partner disclosure				
	DACC (1)	DACC (2)	MeetBeat (3)	MeetBeat (4)
Disclosure	-0.003 (0.003)	-0.002 (0.004)	-0.013* (0.008)	-0.013* (0.007)
Big4_Disclosure	-0.004 (0.004)	-0.002 (0.005)	-0.003 (0.009)	-0.000 (0.008)
LnAssets	-0.006*** (0.001)	-0.005*** (0.001)	-0.014*** (0.001)	-0.013*** (0.001)
Loss	-0.013*** (0.003)	-0.029*** (0.003)	-0.106*** (0.006)	-0.106*** (0.007)
MB	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Cash Flow	-0.513*** (0.007)	-0.488*** (0.006)	0.001 (0.000)	0.000 (0.000)
Litigation	0.030*** (0.008)	-0.077*** (0.006)	-0.013 (0.011)	0.005 (0.009)
Big4	-0.005 (0.009)	-0.003 (0.004)	-0.007 (0.007)	-0.007 (0.010)
Public	0.010 (0.012)	0.003 (0.005)		
Male audit partner	0.004 (0.010)	0.014*** (0.004)	0.004 (0.007)	-0.002 (0.011)
Specialist	-0.014 (0.010)	-0.008** (0.004)	-0.004 (0.008)	-0.010 (0.012)
Issue	0.004 (0.004)	0.012*** (0.004)	0.024*** (0.007)	0.015** (0.008)
Restate	-0.016*** (0.004)	-0.002 (0.004)	-0.014* (0.008)	-0.009 (0.008)
#Analysts			-0.0012 (0.007)	-0.0013* (0.007)
Constant	0.088*** (0.016)	0.124*** (0.007)	0.187*** (0.012)	0.184*** (0.016)
Observations	8,703	8,703	8,013	8,013
R-squared	44.3%	53.4%	3.9%	5.7%
Industry FE	No	Yes	No	Yes
Number of Form Filing ID	843	843	753	753

This table contains regression results for the second hypothesis. Column 1 and 2 represent coefficients for model 3 using discretionary accruals as dependent variable, whereas column 3 and 4 represent coefficients for model 4 using meeting or beating analyst forecasts. Variable definitions can be found in the Appendix Table 2. All coefficients are presented with significance: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1, all two-tailed. Column 1 and 3 are without industry-fixed effects, column 2 and 4 with industry-fixed effects.

## 6.5 Multivariate regression analyses- audit partner disclosure and gender difference

Table 7 presents the results for the third hypothesis, which predicts that male audit partners respond more explicitly than female audit partners to the audit partner disclosure requirement, so that the difference in the acceptance of earnings management between male and female audit partners becomes smaller. Based on prior literature, I assume that the acceptance of the level of earnings management prior to the disclosure requirement is lower for female audit partners than for male audit partners. Indeed, the results in section 6.2 show that the association between earnings management of companies and the auditor being a male is positive. In order to find sufficient evidence for accepting the hypothesis, a significant negative coefficient should be observed for the coefficient of interest: Malepartner\_Disclosure. Similarly to the second hypothesis the research design used for the regression analysis is difference-in-difference. The choice for the difference-in-difference research design is elaborated within section 4.3.

The coefficient for Malepartner\_Disclosure shows a negative and significant association in both columns 1 and 2 (0.010\*\*), which is model 3. Based on just these results, I fail to reject the third hypothesis and conclude that male audit partners do react significantly negative to the audit partner disclosure requirement, *ceteris paribus*. This heavier impact will lead to a smaller difference between male and female audit partners in the post period, in terms of the acceptance towards earnings management. When adding industry-fixed effects to the model, these results hold. However, the results for the meeting or beating analyst forecasts model lack significant results. So putting these results together, I reject the third hypothesis. In the sense that there is not enough significant evidence in both models together. Again, the non-significant results could be due to the clustered standard errors. However, these clustered standard errors around firm level have to be included because I have to deal with both autocorrelation and heteroskedasticity. Further, it could be the case that when looking at not only male and female audit partners, but also add the model at which firm they work: Big Four or Non-Big Four firms, which could lead to more significant results. This could be the case as some of the available prior literature suggests that female audit partners are only associated with lower levels of discretionary accruals when they are working at Non-Big Four firms. (e.g. Burke et al. 2017) The control variables show coefficients that are in line with coefficients in Table 5 and 6. I do not further elaborate on them, because it does not add any more value.



Table 7. Regression results. Earnings management and audit partner gender with audit partner disclosure				
	DACC (1)	DACC (2)	MeetBeat (3)	MeetBeat (4)
Disclosure	0.002 (0.003)	0.003 (0.003)	-0.013 (0.015)	-0.013 (0.015)
Malepartner_Disclosure	-0.010** (0.004)	-0.010** (0.004)	-0.001 (0.017)	-0.001 (0.017)
LnAssets	-0.006* (0.003)	-0.005** (0.002)	-0.014*** (0.003)	-0.013*** (0.003)
Loss	-0.013*** (0.003)	-0.029*** (0.005)	-0.131*** (0.013)	-0.138*** (0.014)
MB	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Cash Flow	-0.513*** (0.069)	-0.488*** (0.063)	0.001*** (0.000)	0.001** (0.001)
Litigation	0.030*** (0.008)	-0.077*** (0.022)	0.010 (0.010)	-0.012 (0.022)
Public	-0.006 (0.008)	-0.004 (0.007)		
Big4	0.010 (0.008)	0.003 (0.008)	0.005 (0.011)	0.006 (0.011)
Male audit partner	0.008 (0.009)	0.017** (0.008)	0.006 (0.014)	0.016 (0.015)
Specialist	-0.014 (0.010)	-0.008 (0.008)	-0.019 (0.015)	-0.013 (0.016)
Issue	0.003 (0.004)	-0.012* (0.007)	0.022* (0.012)	0.021* (0.012)
Restate	-0.017** (0.007)	-0.003 (0.005)	-0.017 (0.006)	-0.019 (0.016)
#Analysts			-0.001 (0.001)	-0.002* (0.001)
Constant	0.086*** (0.021)	0.123*** (0.016)	0.230*** (0.026)	0.234*** (0.027)
Observations	8,703	8,703	8,013	8,013
R-squared	44.45	53.5%	0.040	0.063
Industry FE	No	Yes	No	Yes
Number of Form Filing ID	843	843	753	753
<p>This table contains regression results for the third hypothesis. Column 1 and 2 represent coefficients for model 3 using discretionary accruals as dependent variable, whereas column 3 and 4 represent coefficients for model 4 using meeting or beating analyst forecasts. Variable definitions can be found in the Appendix Table 2. All coefficients are presented with significance: *** p&lt;0.01, ** p&lt;0.05, * p&lt;0.1, all two-tailed. Column 1 and 3 are without industry-fixed effects, column 2 and 4 with industry-fixed effects.</p>				

## **7. Additional checks**

To find significant results, I perform two additional checks. These additional checks are additional to the already implemented industry-fixed effects. In order to find more significant results I run the regression analyses for a smaller sample. This smaller sample does not include the year 2015, but focuses on the year prior to the implementation of the audit disclosure requirement and the year after implementation. Unfortunately, the smaller sample does not give more significant results. To be more precise, the regression with the smaller sample give the same amount of significant results for hypothesis 2 and 3 and declines the amount of significant results for hypothesis 1. For that reason I do not present the results in the research. Secondly, I use as a dependent variable not absolute discretionary accruals, but specify discretionary accruals in either absolute positive or absolute negative discretionary accruals. The use of both positive and negative discretionary accruals separate can distinguish between income-increasing and income-decreasing accounting techniques and is used in prior literature. (e.g. Balsam, 1998; Caramanis and Lennox, 2008; Blay et al. 2017) Again, I obtain the same non-significant results, so I do not improve my original results; therefore I choose not to present the results of these additional regressions.

## **8. Conclusion**

The identity of the engagement partner has to be made public by filing a Form AP to the PCAOB for each audit report that has been issued from January 31th 2017 onwards. The reason for the implementation of this requirement was to improve audit quality by means of higher accountability, transparency of the audit process and greater care of the engagement partner. The new requirement raises the concern of especially Big Four audit firms, in terms of increased litigation risk, reputation risk and also because they thought that there was already enough regulation in place. Researchers added to this that unintended consequences could outweigh the potential benefits. This research examines whether the effects of the audit partner disclosure requirement are in line with the initial expectations of the PCAOB, and the higher reputation risk is reflected into less earnings management or whether those unintended consequences are leading. This research examines this association by answering the following research question: Has earnings management decreased after implementation of Rule 3211, with reputation risk as its driving force and is there a difference in association between male and female audit partners?

Furthermore, my research expanded existing literature on audit partner disclosure in the US. I studied whether the effect is more pronounced for Big Four firms and whether the requirement has more effect on male audit partners.

I can conclude that earnings management has decreased after implementation of the audit partner disclosure regulation, since both the coefficients for the discretionary accruals and the meeting or just beating analysts' forecasts give significant negative results, for the sample containing both public and private companies, as it was initially meant by the PCAOB.

Insufficient evidence has been obtained to draw a conclusion on whether the impact has been larger for Big Four audit firms in comparison to Non-Big Four firms, with increased reputation risk as its driving force. An explanation for this outcome could be that reputation risk is not significantly increased for the engagement partners, when filing a Form AP. Just filing a Form AP, instead of a visible signature as is the case in countries like Taiwan or the UK, comes with a lower visibility of the partners' identity. Another potential explanation for these results could be that the size of the audit firm does not matter, but that researchers should focus on the size of the audited firm itself. The lead partner in audits of smaller companies has still a more significant role and thus could audit partner disclosure lead to less earnings management for smaller companies. It could also be that earnings management of clients audited by Big Four audit firms are already of such low levels, that the coefficient of interest is not significantly affected (Blay et al. 2014).

Although the results relating to the third hypothesis suggest that the impact is more pronounced for male audit partners than female audit partners, I reject the third hypothesis, because of the absence of enough significant results in both models. The results do suggest that male audit partners react more pronounced to Rule 3211, as shown by the negative coefficients. So I encourage further research on this topic, by maybe examining model 2 by means of a logistic regression. Following Cunningham et al. 2017 this could lead to more significant results of the meeting or beating model.

This thesis has unfortunately several limitations. Firstly, the effect of the audit partner disclosure requirement could only been tested for a short amount of time after implementation. Earnings numbers for the year 2018 were not yet available, when I started the data collection. It could be that, the effect of the requirement becomes not immediately measurable. So research covering the subject of this thesis becomes more interesting, when the requirement is longer effective. Moreover as the stock market reacts to the announcement of earnings numbers, as

analyzed in the well-known early article of Ball and Brown (1968). Stock prices are still reacting twelve months after the release date, meaning that earnings numbers after 2017 are worth examining, especially relating to the meeting or beating analysts' forecasts model. And that this could lead to more significant results for this regression model. Also partner characteristics become available with audit partner disclosure, so an increasing amount of research can be done on audit partner level, relating partner characteristics to audit outcomes.

Secondly, the regression model could be subject to the omitted variable bias. Although I implemented control variables that are in line with prior research and do control for performance, size, audit characteristics, financial condition, industry effects, market value and the following by analysts, there are other variables that do correlate with the dependent variables but were not added, like volatility of cash flows, tenure of the audit partner or age of the firm. In spite of this concern, I do believe that the R-squared is in line with prior literature, which implies that the explanatory power of the model is in line with research on audit partner disclosure. The R-squared for the accrual-model is much higher than the meet or beat earnings forecasts model, which is also in line with prior literature, indicating that the accrual-model has a higher explanatory power. (Blay et al. 2014) The high R-squared decreases but holds a high explanatory power when deleting the Cash Flow variable, while also the signs of the other variables do not differ.

Thirdly, a logistic regression for the meet or beat model could better in providing more significant results. As the intuition behind the meet or beat analyst forecasts model is that in a world without earnings management the percentage of companies that slightly meet the forecasts of analysts compared to fail to meet them. Prior literature (e.g. Bhojraj et al. 2009; Caramanis and Lennox) has suggested that there are more companies that slightly meet the benchmarks than fail to meet them. A large number of articles use a logistic regression in order to capture the association of meeting or beating earnings forecasts to their independent variables. Using the probability to meet or beat analyst forecasts could be beneficial for more significant results.

Furthermore, the lack of significant results could be due to inappropriate model fit, but I do believe that the analyses are well performed. As a result of sufficient control variables added to the model to achieve a good fit, together with industry-fixed effects to verify the robustness of the results, additional checks with the smaller sample size and doing the regression for absolute positive and absolute negative discretionary accruals separately and the use of a sample of both public as private companies, I presume that this dissertation contributes to the field of research

and provides valuable insights on the implementation of the audit partner identity disclosure in the US. Future research can be done with a larger sample containing again public and private companies, though with a larger time frame after the implementation of Rule 3211 to fully capture the effect of audit partner disclosure. A logistic regression can be performed concerning the meeting or beating analysts' forecasts model. Future research can divide between gender as well as working at a Big Four or Non-Big Four firm or run the regression on a sample based on different sizes of the audited companies. Lastly, the difference in reaction to audit partner disclosure between male and female audit partners has to be further examined. Because, my research does show that male engagement partners, when looking at the discretionary accrual model, react more strongly when their identity is made public in terms of acceptance of earnings management.

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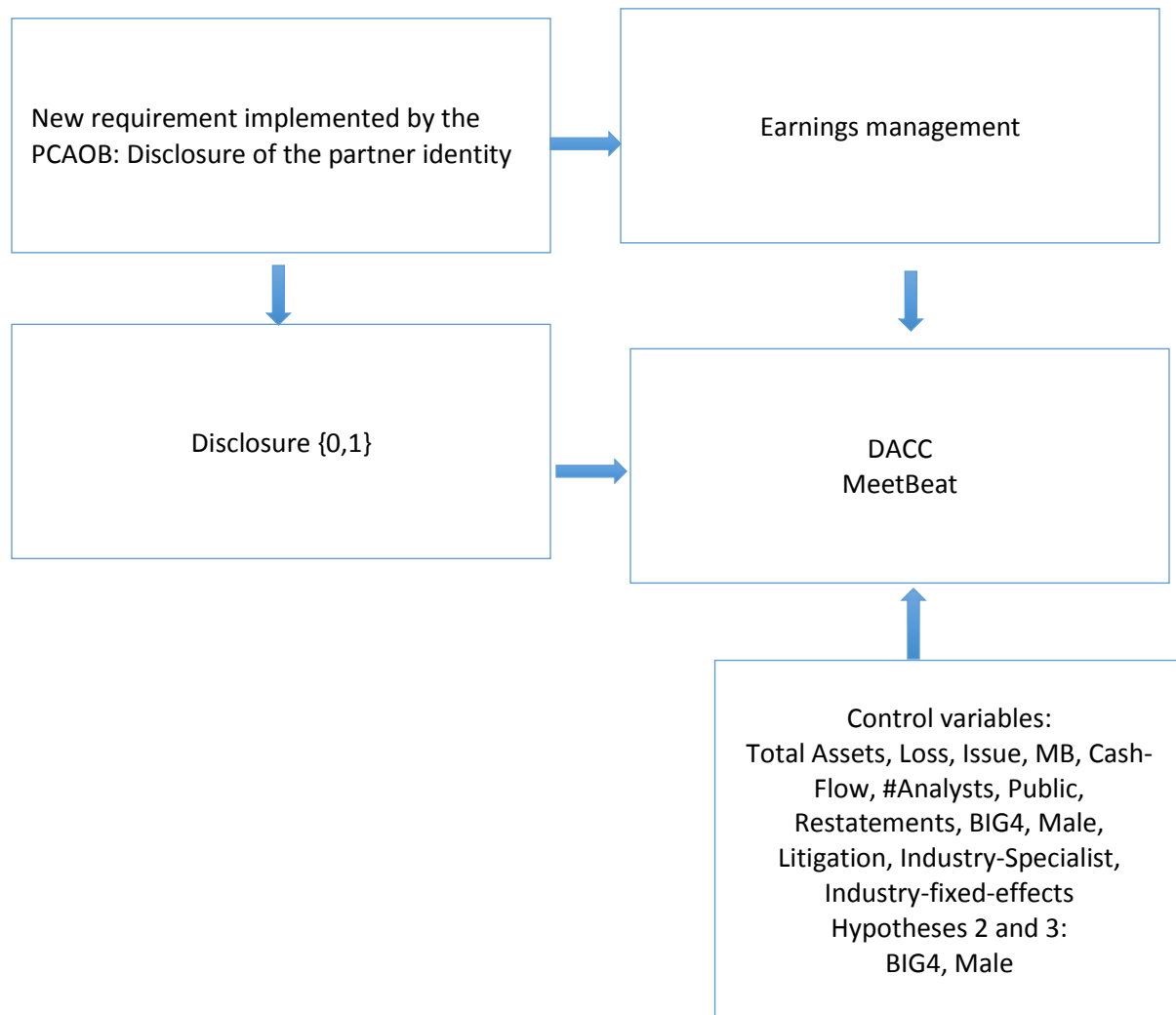
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## Appendix

**Table 1: Predictive Validity Framework**



**Table 2: Explanatory table for second hypothesis**

Table 2: Explanatory table hypothesis 2. Potential widening gap between Big Four and Non-Big Four firms in terms of earnings management of their clients			
	<b>Big Four</b>	<b>Non-Big Four</b>	<i>Difference in acceptance</i>
<b>Pre-disclosure requirement</b>	2	3	1
<b>Post-disclosure requirement</b>	1	2.5	1.5
<i>Decrease in earnings management</i>	-1	-0.5	
This table is an explanatory table underlying the second hypothesis, with 3=high level of earnings management, 2=moderate level of earnings management and 1=low level of earnings management. The impact of the audit partner disclosure requirement of the PCAOB has a potentially larger impact on Big Four firms, which will then result in a larger difference in the attitude towards earnings management of their clients.			

**Table 3: Explanatory table for third hypothesis**

Table 3: Explanatory table hypothesis 3. Potential smaller gap between Male and Female audit partners in terms of earnings management of their clients			
	<b>Male</b>	<b>Female</b>	<i>Difference in acceptance</i>
<b>Pre-disclosure requirement</b>	3	2	1
<b>Post-disclosure requirement</b>	1	1.5	0.5
<i>Decrease in earnings management</i>	-2	-0.5	

This table is an explanatory table underlying the third hypothesis, with 3=high level of earnings management, 2=moderate level of earnings management and 1=low level of earnings management. The impact of the audit partner disclosure requirement of the PCAOB has a potentially larger impact on Male audit partners, which will then result in a smaller difference in the attitude towards earnings management of their clients.

**Table 4: Variable Definitions**

<b>Dependent variables</b>	<b>Definition</b>
DACC	The level of absolute discretionary accruals, calculated using the Modified Jones model
MeetBeat	The earnings surprise, calculated using the actual yearly EPS and the forecasted yearly EPS by stock analysts. Then selected as MeetBeat when earnings surprise is between 0 and 0.01
<b>Independent variable</b>	<b>Definition</b>
Disclosure	Indicator variable equal to one if the audit report is published in the period that the audit partner disclosure requirement is active, zero otherwise
<b>Control variables</b>	<b>Definition</b>
LnAssets	Natural logarithm of total assets
MB	The market-to-book ratio, which is calculated by the market value of equity divided by the book value of equity.
Loss	Indicator variable equal to one if EPS is below zero, and zero otherwise
Issue	Indicator variable equal to one if there was an equity issue (being an IPO or a SEO), during the current fiscal year, zero otherwise
Restate	Indicator variable equal to one if there was a material restatement of the financial statements during the current fiscal year, zero otherwise
Big4	Indicator variable equal to one if the auditor is one of the Big 4 auditors (KPMG, Deloitte, EY, and PWC), and zero otherwise
Male	Indicator variable equal to one if the engagement auditor was a male, zero if the engagement auditor was a female

#Analyst	The number of stock analysts that are following the company during the current fiscal year
Cash Flow	The Cash Flow from operations of the company divided by lagged total assets
Litigation	Indicator variable equal to one if the company operates in a litigious industry if the SIC code is 2833-2836, 3570-3577, 3600-3674, 5200-5961, or 7370-7374, as based on Francis et al. 1994, zero otherwise
Public	Indicator variable equal to one if the company has issued tradeable securities on either an equity or debt capital market, zero otherwise
Specialist	Indicator variable equal to one if the company is audited by a 'industry-specialist', which is selected by means of a market-share approach based on Krishnan (2003), zero otherwise