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The Impact of Board of Directors' Turnover on the Association between Financial Restatements and Audit Fees

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Abstract

This study examines the association between financial restatements and audit fees, and the effect of board of directors turnover on this relationship. Restatements are seen as a financial reporting failure, increasing risk for the auditor resulting in a higher audit fee. Regression analysis using the audit fee change model based on prior literature is applied on an U.S. sample. We found no evidence that there is positive significant relationship found between restatements and audit fees. Eventually, the association between restatements and audit fees does not weaken for restatement firms changing board members relative to restatement firms not changing board members. Hence, this implies that board of directors turnover is not an effective strategy to weaken the relationship between restatements and audit fees. This study contributes by responding to the call of Feldmann et al. (2009) to investigate possible indicators, next to CEO and CFO turnover, that firms can take to repair their damaged reputation due to a financial restatement.

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1 Introduction

After the implementation of the Sarbanes-Oxley Act (SOX) in 2002, a distinct increase has been noted in financial restatements due to financial reporting fraud and/or accounting errors (GAO, 2006). The number of restatements in the U.S. increased from 709 in 2002 up to 1801 in 2006. However, in the year 2007 the number of restatements has decreased (DeZoort, 2012). Regulators find this great number of financial restatements undesirable, since restatements have negative market effects. These negative market effects can be expressed by negative stock price reactions preceding and following restatement announcements (Palmrose et al., 2004), higher litigation risk (Palmrose & Scholz, 2004), a reduction in expected future firm performance, a higher cost of equity capital (Hribar & Jenkins, 2004), a higher cost of debt (Park & Wu, 2009) and more insider trading (Li & Zhang, 2006).

On top of the consequences of financial restatements mentioned above, restatements interfere also with the firm's organizational legitimacy (Feldmann et al., 2009). This means that stakeholders' perception of the firm's actions does not reconcile with the norms, values, and beliefs of those stakeholders (Ashfort & Gibbs, 1990). An organization has to gain legitimacy from its stakeholders to gain credibility and trust for continuing its operations (Suchman, 1995). Therefore, restatements are an undesirable and costly event lowering a firm's organizational legitimacy resulting into higher (perceived) risk for stakeholders, inter alia auditors.

Consequently, auditors assign higher audit risk to firms with financial restatements relative to firms without these restatements (Feldmann et al., 2009). Higher audit risk is associated with higher expected audit effort and higher billing rates to compensate for this risk (Bedard & Johnstone, 2004), which will result in a higher audit fee.

Feldmann et al. (2009) argue that financial restatements and subsequent audit fees are positively related. This effect weakens when the incumbent CFO is replaced subsequent to the restatement. Replacement of the CFO can be seen as a strategy to regain organizational legitimacy, which has been impaired by financial restatements. Prior research shows there is higher management turnover (Desai et al., 2006) and higher board turnover subsequent to restatements (Shrinivasan, 2005). These turnovers, the change in strategic leaders of a firm, can be an indicator that the firm tries to repair its organizational legitimacy (Arthaud-Day et al., 2006).

In this research we examine the relation between financial restatements and audit fees, and the effect of board of directors turnover on this relationship. The research question is: 'to what extent does changing the board of directors have an effect on audit fees following a financial restatement?' This research is a direct response to the study of Feldmann et al. (2009), who investigate the moderating effect of CEO and CFO turnover on the relationship between financial restatements and audit fees, and put forward to investigate other possible indicators that firms take to repair the impaired legitimacy.

Based on prior literature, this study expects a positive relationship between financial restatements and audit fees (Feldmann et al., 2009). Further, it is expected that board of directors turnover is higher for restatement firms relative to the control firms (Shrinivasan, 2005). Next, it is predicted that the relationship between restatements and audit fees weakens for restatement firms changing members in the board of directors relative to restatement firms not changing members in their board of directors (Arthaud-Day et al., 2006; Feldmann et al, 2009; Shrinivasan, 2005). The findings do not provide evidence for the predictions above. Hence, this implies that board of directors turnover is not an effective strategy to weaken the relationship between restatements and audit fees.

The paper is structured as follows. First, a literature review is given concerning financial restatements, audit fees, organizational legitimacy and board of directors. Second, based on the literature review, the hypotheses are developed. Next, the sample, data and research methodology are presented. Further, the study's findings are shown and analyzed. Finally, the paper is summarized and the conclusions, limitations and suggestions for future research are provided.

2 Literature review

In the beginning of this section we discuss on financial restatements and the trends, causes, and effects of these restatements. We next focus, on the one hand, on the determination of audit fees and the influence of auditor risk on these fees are discussed and on the other on the need of organizational legitimacy and the consequences when this legitimacy is impaired. Finally, oversight board turnover, as a repair strategy to regain organizational legitimacy, will be outlined in detail.

2.1 Financial Restatements

The main purpose of financial statements is to disclose inside accounting information of firms' economic position to the external world secured by the Securities Exchange Act of 1935 by the Securities and Exchange Commission (SEC). In order to protect investors against unreliable or incomplete information, the SEC imposes laws and regulations to prepare the financial statements according to the applied accounting standards. Auditors provide reasonable assurance that the financial statements represent a true and fair view of the firm's underlying economic position, i.e. the financial statements do not contain material misstatements (GAO, 2006).

However, after publishing the financial statements, it is possible that a financial restatement has to be made for correcting incorrect information in those reports. A financial restatement can occur for two main reasons: a routine, less severe restatement or a non-routine restatement, often indicating problems in a firm. In other words: a restatement can be made due to a change in the applied accounting rules (Arthaud-Day et al., 2006). Or a restatement has to be made due to a financial reporting failure, e.g. fraud or applying the accounting rules incorrectly (Palmrose & Scholz, 2004). Distinction between planned and unplanned restatements is useful to explain the difference of market reactions to a restatement. Hennes et al. (2008) show that the negative consequences due to restatements are more severe when it concerns an intentional restatement relative to an unintentional restatement. The SEC depicts these last kind of restatements as: 'the most visible indicator of improper accounting – and source of new investigations' (Schroeder, 2001 in Palmrose & Scholz, 2004). Also, a restatement is characterized as: 'a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain' (Schipper, 1989). This implies that a restatement provides a negative image for firms.

Researchers confirm the bad reputation of a restatement by using restatements as a proxy for (financial) failures in firms (Plumlee & Yohn, 2010). Aier et al. (2005) use financial restatements as a proxy for internal control deficiencies and communication errors within a firm by the lack of expertise of financial executives. Also, restatements are used as a proxy for weak corporate governance due to a lack of monitoring from oversight boards

in firms (Srinivasan, 2005). Moreover, restatements are used as a proxy for earnings management. For example, Efendi et al. (2007) show that management use restatements to sustain the overvalued stock price or meet analysts' expectations. Additionally, Desai et al. (2006) use restatements to proxy for corporate fraud.

After the implementation of SOX, not only the number of restatements increased significantly, but also the number of firms disclosing a restatement increased (GAO, 2006). Despite of the growth in restatements, the nature of the restatements became less egregious after SOX (Burks, 2011). Most restatements occur to correct for revenue, costs or expense (including lease accounting issues), or adopt securities-related issues. Costs or expense modifications occur the most. Restatements can be addressed by both internal and external parties. Internal parties, such as management or internal auditors, induce half of all restatements. External parties, such as auditors or SEC, induce only less than a quarter of all restatements. For the remaining part, no prompter for the restatements has been identified (GAO, 2006).

The increasing number of restatements causes concern by the SEC. In order to diminish this concern, the SEC has established the Advisory Committee on Improving Financial Reporting (ACIFR) in 2007. This committee has suggested to shift from rules-based accounting standards towards more principle-based standards. Rules-based standards are seen as complex and bringing confusion due to many possible exceptions, causing restatements (Plumlee & Yohn, 2010). However, principle-based standards can cause interpretation differences by auditors and regulators also resulting into a restatement (Pozen, 2007). Thus, it is not clear whether rules-based or principle-based standards are better to limit the probability of a restatement.

Prior literature identified an extensive list of causes of financial restatements in addition to the one mentioned above. The increasing number of new accounting standards and changes in those standards result into a lack of transparency and differences in applying the standards. Restatements are needed to find convergence between applying and interpreting differences of regulators, auditors and managers. Also, contemporary business transactions get more complex causing possible restatements. Another reason causing restatements is SOX 404 regarding internal controls. This section in SOX required many restatements to correct past errors in financial reports afterwards. Also, SOX increased conservatism among auditors and audit committees. Managers' judgments were not easily taken-for-granted anymore and scrutinized, in order to protect the audit firm for a corporate failure, as the collapse of Arthur Andersen (Plumlee & Yohn, 2010).

The ACIFR also identified that restatements have been caused due to excessively tight level of permitted misstatements, even though those restatements are unimportant for investors. Further, poor corporate governance and internal control deficiencies can decrease financial reporting quality resulting in financial failures and thus a restatement. A strong corporate governance culture helps to monitor and correct the different parties involved with the process of the financial statement – such as management, audit committee, internal and external auditors – reducing the likelihood of a possible restatement. A last possible cause of restatements is the increasing pressure on management to meet or beat investors' expectations or the personal drive to obtain the target for a bonus. It is tempting for management to make 'errors' in applying the rules to satisfy investors or other stakeholders. When these errors are detected, a restatement is needed to correct this (DeZoort, 2012).

Financial restatements have several negative effects. Palmrose et al. (2004) analyze a nine percent reduction in abnormal returns around a two-day window to restatement

announcements. Restatements are also associated with higher litigation risk (Palmrose & Scholz, 2004). This association strengthens when the restatements are revenue related (Akhigbe et al., 2005). Hribar & Jenkins (2004) show that restatements are associated with a reduction in expected future firm performance. The perception of management's expertise, management trustworthiness, and earnings quality reduces also due to a restatement. Consequently, investors ask a higher cost of equity capital. Park & Wu (2009) investigate the influence of restatements on the cost of debt. The results show that restatements and the cost of debt are positively related. Also, the information regarding the restatement is incorporated more quickly into the cost of debt than in the cost of equity. Both studies of Hribar & Jenkins (2004) and Park & Wu (2009) show that the negative effect of the restatement on the cost of equity and the cost of debt is stronger when the restatement has been prompted by the SEC or an external auditor relative to an internal party of the firm. Another study of Li & Zhang (2006) finds that insiders try to take advantage of specific knowledge regarding to the restatement by trading preceding the coming restatement to make a gain. In addition to these effects, restatements bring also direct costs, such as adjusting the financial reports for firms and processing costs to incorporate the modification for investors. Lawsuits against shareholders due to a restatement can bring extra costs for the firm too (Akhighbe et al., 2005).

2.2 Audit Fees and Auditor Risk

The most influential research on the pricing of audit services has been done by Simunic (1980). Simunic states that the audit fee is determined by: '*the product of unit price and the quantity of audit services demanded by the management of the audited company'* (1980, p. 161). Therefore, the demand for quantity and price determines the amount of the audit fee. The theoretical model that is created in the paper, has two underlying assumptions. First, the market for providing audit services is competitive. Second, the level of audit assurance is constant within a client-firm.

Simunic's study has been a starting point for subsequent research to investigate other possible factors that influence the level of audit fees. Subsequent research has found that audit fees are positively related with the size of the client, the risk associated with the client and the complexity of the client-firm. These factors are categorized as the supply variables, which influence the audit fee from the perspective of the auditor (Hay et al., 2006). Demand variables also affect the level of audit fees. However, those factors are mostly ignored in the model for audit fees. Regulators can for instance demand more audit quality resulting into higher fees. Other possible factors can be: quality of the auditor (Big 4 vs non-Big 4), facility of providing non-audit services, and demand for corporate governance quality. This last attribute can affect audit fees in two ways. On the one hand, a strong corporate governance environment lowers the need for auditors to perform extra work resulting into a lower fee (Hay et al., 2006). On the other hand, a strong corporate governance environment requires extra work for auditors, since oversight boards require a better qualitative audit. This increases the audit fee (Hay & Knechel, 2004). Thus, demand variables influence the audit fee model and create anomalies in the model to determine the level of audit fees (Hay et al., 2006). In other words, the level of audit fees is influenced by demand forces which are not specified by Simunic (1980), i.e. production related.

Knechel & Willekens (2006) create theoretical underpinnings for the external demand for audit services. It is stated that this external demand is determined by the interaction of two

attributes. First, the external demand is dependent on the set of risks impacting the firm's stakeholders. Second, the external demand is dependent on the set of control mechanisms which are applicable to mitigate this set of risks. Stakeholders can require more control mechanisms to reduce the risks, which the stakeholders encounter. A greater external demand for audit services corresponds with a higher audit fee. In other words, if more stakeholder groups ask for more auditing, this will result in a greater investment in external auditing by firms.

It is debatable whether higher audit quality is associated with higher audit fees. However, the use of audit fees as a proxy for audit quality can be justified for several reasons. First, Palmrose (1986) examines the association between audit firm size and audit fees. An indicator variable is added into the regression to distinguish between a Big N firm or a non-Big N firm. The results show that a Big N firm is positively associated with higher audit fees. It is explained that those higher fees represent more qualitative audit services, the amount of expertise, and additional services those audit firms can provide to the client. Second, the demand for more auditing from oversight boards increases the amount of audit hours and/or the need to use experienced auditors. This will result in a higher audit fee (Abbott et al., 2003). Third, DeAngelo (1981a) provides theoretical underpinnings that audit firm size and audit quality are correlated. Auditors of large audit firms have less incentives to behave opportunistically and thus report breaches in financial statements when necessary. The reason for this behavior is that these auditors have more to lose (i.e. greater reputation and number of clients) if they fail to perform their job correctly. However, auditors will ask a premium for providing qualitative audits. Also, Geiger et al. (2003) find a positive relation between audit fees and a going-concern modified audit report. This result corresponds with other studies which show that more adjustments needed from the side of the auditor, increase the hours spend on the client and consequently increase the audit fee. Further, Larcker & Richardson (2004) state that smaller accruals, which is a proxy for earnings quality, are associated with higher audit fees. This also implies that auditors have to perform more work to provide a qualitative audit resulting into a higher fee.

Contradictorily, Francis (2004) is quite skeptical about the level of audit quality that can be achieved. Audit quality can be ranged from low to high audit quality. The lower the quality of the audit, the higher the likelihood of an audit failure. However, one only indicates poor audit quality, when an audit failure exists. It is not straightforward to assess the level of audit quality. It is possible that firms invest too much in audit fees to reduce the likelihood of an audit failure, since the potential benefits and costs cannot easily be determined. This implies that higher audit fees does not necessarily mean an increase in audit quality.

2.3 Organizational Legitimacy

As stated before, financial restatements indicate accounting failures within a firm. Restatements signal poor performance of a firm caused by strategic leaders resulting into an impairment of stakeholders trust (Arthaud-day et al., 2006). Consequently, the firm's organizational legitimacy becomes threatened. Legitimacy is defined as: '*Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions'* (Suchman, 1995, p. 574). This means that gaining legitimacy is driven by the social perception of a firm's behavior according to the social laws. Or in other words, a

firm is seen as legitimate when its objectives, actions, and results are perceived to be in accordance with the social norms, values, and expectations (Dowling and Pfeffer, 1975). Acquiring legitimacy is needed for several reasons. Legitimacy helps the firm in pursuing its organizational activities by generating credibility. Stakeholders would rather collaborate with firms acting according to the societal norms than with firms who do not act according to those norms and values. Also, stakeholders understand the firm better, and consequently the firm becomes more predictable and trustworthy in the eyes of stakeholders. According to Zimmerman and Zeitz (2002), legitimacy is in itself a resource needed to obtain other resources to perform the firm's activities. This implies that gaining and maintaining organizational legitimacy is important for firms to survive.

When stakeholders perceive that the firm does not act according to the societal norms, values, and beliefs, organizational legitimacy is threatened. A financial restatement is an undesirable event, which threatens the organizational legitimacy of a firm (Feldmann et al., 2009). The leaders of a firm can perform certain strategies to repair this damaged legitimacy. The driving force behind the execution of such strategies to regain legitimacy can be explained by institutional theory. The concept of legitimacy cannot be completely rationalized, since societies and business organizations operate only bounded rationale and in uncertain conditions. This is endorsed by institutional theory, which explains that processes by which structures, including scripts, rules, norms, and values, provide a foundation for social behavior. Thus, when organization legitimacy has been impaired, management should act along the structures of the organization and society in such a way that is accepted by social actors to regain legitimacy (Zimmerman & Zeitz, 2002). Therefore, management will perform strategies to repair its damaged legitimacy. Such a strategy is a reactive response on the occurred restatement. Suchman (1995) describes three main strategies that a firm can execute. First, managers can try to separate the threatening event from the organization by for instance denying the problem. Second, managers' decision making should not be severely influenced by the threatening event, since this can disrupt the firm's activities increasing reputation loss. Third, managers can restructure the firm by either creating and/or changing monitoring boards or disassociation. Disassociation means that the firm detaches itself from the threatening event. Disassociation can be accomplished by replacing the strategic leaders of the firm. Restructuring the firm is the most common strategy to repair legitimacy after a financial restatement (Feldmann et al., 2009).

The change of strategic leaders of the firm can take two forms. On the one hand, firms can replace the incumbent executives, i.e. CEO and/or CFO. On the other hand, firms can replace the directors of oversight boards, i.e. board of directors and/or audit committee (Suchman, 1995). These changes are not a direct form of regaining legitimacy (Arthaud-Day et al., 2006), but it is an indication that the firm is taking its responsibility for the restatement and trying to restart (Suchman, 1995).

Replacing executives can be useful since they are seen as the 'face' of the organization by stakeholders. Hence, executives are held responsible for restatements. So, removing these 'bad influences' from the firm can be effective (Suchman, 1995). The study of Arthaud-Day et al. (2006) shows that CEO and CFO turnover is indeed higher after a restatement in comparison with non-restatement firms. The study of Desai et al. (2006) confirms the findings of Arthaud-Day et al. (2006). Burks (2010) examines the termination of CEOs and CFOs subsequent to a restatement in the post-SOX period. Unlike Arthaud-Day and Burks, the results of Burks show that CEO turnover is not higher after a restatement. However, consistent with prior literature, CFO turnover is higher after

a restatement relative to non-restatement firms. Burks also finds that there is a shift in the actions a firm takes to discipline its executives. Instead of terminating managers, the firm can choose to withhold or reduce managers' bonuses after a restatement. The reason for this is that terminating managers is quite costly for a firm. This means that the choice for terminating managers can be seen as a cost-benefit analysis; the costs terminating the managers versus the (expected) benefits when regaining the firm's reputation. Further, the study of Collins et al. (2008) focuses on CFO turnover and bonus compensation subsequent to a restatement. The reason to focus only on CFOs is because of that CFOs are rather held responsible for the restatement than CEOs. The findings state that CFO turnover and bonus curtailments are higher for restatement firms relative to non-restatement firms. However, these findings only hold when firms are subject to litigation risk. Feldmann et al. (2009) analyze the effect of executive turnover on the association between restatements and audit fees. This research shows that CFO turnover has a moderating effect on the association between restatements and audit fees, but CEO turnover has not a significant moderating effect. As stated before, next to executive turnover firms can also choose to change oversight boards, i.e. the board of directors and the audit committee, to repair the damaged reputation subsequent to a restatement. The next section will elaborate further on one of the oversight boards in an organization, namely: the board of directors.

2.4 Board of Directors

As explained in the previous section, firms can also change oversight boards to repair their damaged reputation after a restatement (Suchman, 1995). Executive turnover might be an effective repair strategy for the firm. However, it is costly for the firm and it is not executed that easily (Arthaud-Day et al., 2006). So, oversight board turnover could be an alternative. This section will highlight the role of the board of directors, one of the oversight boards that is present in firms, and explain why board of directors turnover could help to repair organizational legitimacy.

The board of directors is the linkage between the firm's executives and the shareholders. The board has two main responsibilities. First, consistent with agency theory, boards have to control and monitor the firm's executives (Jensen & Meckling, 1976). It is the boards role to oversee the alignment between managers' objectives and shareholders' interests. The board has also the right to hire, fire, and compensate the firm's manager (Agrawal & Chadha, 2004). Second, the board has to provide guidance to the firm in meeting its strategy (Aguilera, 2005). Also, it is the board's responsibility to monitor the financial reporting and audit processes. This can be done in two ways: formal and informal. Formally, the board is involved with selecting the external auditor together with management and if present, the audit committee. This means that the board has influence in the audit process and the suggested audit fee. Informally, the presence of the board can be a signal for auditors that the quality of the audit is expected to be quite high. This can induce extra effort for auditors performing the audit (Carcello et al., 2002).

The board has to adhere three basic duties, namely: the duty of care, the duty of loyalty, and the duty of candor. The duty of care considers that all actions and decisions by the board must be made with great deliberation. The duty of loyalty means that the members of the board have to be free from any conflict of interest that could limit to act in the organization's best interest. The duty of candor denotes that the board has to disclose all relevant information to shareholders and stakeholders (Larcker & Tayan, 2011).

The members of an oversight board will be rewarded when performing well and punished when performing badly in an efficient director labor market (Shrinivasan, 2005). Changing strategic leaders is in fact a labor market penalty towards the firm's leaders (Agrawal et al., 1999). This possible penalty can induce oversight boards to monitor efficiently ex-ante. However, the costs of monitoring will be weighed against the costs of the possible negative consequences. As stated earlier, financial restatements are seen as an accounting failure. Also, financial restatements are seen as an oversight failure, which creates the necessity to replace the directors of the oversight boards to improve future monitoring (Shrinivasan, 2005). However, changing the firm's leaders is a severe and costly measure to regain reputation. Firms have to make a cost-benefit analysis in order to decide to pursue the replacement of leaders (Agrawal et al., 1999).
In conclusion to thi literature review we provided the linkages described in literature between financial restatements, audit fees and the possible effect of board of directors turnover on the relationship between restatements and audit fees. First, the trends, causes and effects of restatements have been discussed. Second, the determination of audit fees and the influence of auditor risk on these fees have been described. Prior literature illustrates a positive relationship between auditor risk and audit fees. This provides the positive relationship between restatement and audit fees, since restatements are an indicator of higher risk for auditors, which will increase audit fees. Third, one of the consequences of a financial restatement has been discussed, i.e. the threatening of organizational legitimacy. Firms need to gain and maintain organizational legitimacy in order to carry out its operational activities. Legitimacy can be impaired by a restatement, since a restatement is seen as a failure from the side of the company. One repair strategy to regain organizational legitimacy is board of directors turnover. This implies that changing the members of the board of directors could help the firm repairing its damaged reputation due to a financial restatement. Finally, the role of the board of directors in organizations has been discussed in order to explain why board of directors turnover could be an effective repair strategy. Thus, this chapter offers the foundation for the development of the hypotheses, which is presented in the next chapter.

3 Methodology

3.1 Research Methodology

The hypotheses will be tested by using a multivariate regression analysis based on the model used by Feldmann et al. (2009) and Carcello et al. (2002), who extended the empirical fee model made by Simunic (1980). The regression model used by Feldmann et al. (2009) is modified by excluding irrelevant control variables and adding other control variables in order to test this study's hypotheses, as will be explained further in this section. The used regression model, called the audit fee change model, states as follows:

$$\Delta LNFEE = \beta 0 + \beta 1\ RESTATE + \beta 2\ \Delta LNTOTASSETS + \beta 3\ \Delta SQSUBS + \beta 4\ FOREIGNOPER + \beta 5 \Delta INVAR\% + \beta 6\ \Delta DEBT\% + \beta 7\ ICD + \beta 8\ LOSS + \beta 9\ AUDITOR + \beta 10\ BODTURN + \beta 11\ RESTATE * BODTURN + \varepsilon$$

All the variables explained above are defined in table 1. Table 2 reports the Pearson correlation matrix between the used variables in the model. There is low correlation between the independent variables and the dependent variable *ΔLNFEE*. The variables *ΔLNTOTASSETS, FOREIGNOPER, ΔINVAR%* have a significant correlation with

ΔLNFEE. Further, the correlations between the independent variables are also low. The variable *ICD*, however, has significant correlations with 4 independent variables and the variable *LOSS*, has significant correlations with 3 other independent variables.

Table 1: Variables Description

Variable		Explanation
ΔLNFEE	=	Difference between the natural log of total audit fees two years after the restatement year and the restatement year itself;
RESTATE	=	Dummy variable: 1 for restatement firms, 0 otherwise;
ΔLNTOTASSETS	=	Difference between the natural log of total assets two years after the restatement year and the restatement year itself;
ΔSQSUBS	=	Difference between the square root of total subsidiaries two years after the restatement year and the restatement year itself;
FOREIGNOPER	=	Dummy variable: 1 for firms operating foreign activities, 0 otherwise;
ΔINVAR%	=	Difference between ratio of the sum of inventory and accounts receivable to total assets two years after the restatement year and the restatement year itself;
ΔDEBT%	=	Difference between ratio of long-term debt to total assets two years after the restatement year and the restatement year itself;
ICD	=	Dummy variable: 1 for firms reporting an internal control deficiency in the restatement year and/or the two subsequent years, 0 otherwise;
LOSS	=	Dummy variable: 1 for firms reporting a loss in the restatement year and/or the two subsequent years, 0 otherwise;
AUDITOR	=	Dummy variable: 1 for firms changing audit firm, 0 otherwise;
BODTURN	=	Cumulative number of turnovers of board of directors from the restatement year through two years after the restatement year;

Table 2: Pearson Correlation Matrix

	Variables	1	2	3	4	5	6	7	8	9	10	11
1	*ΔLNFEE*	1										
2	*RESTATE*	.09	1									
3	*ΔLNTOTASSETS*	.27**	-.05	1								
4	*ΔSQSUBS*	.09	-.04	-.01	1							
5	*FOREIGNOPER*	.23**	-.10	-.00	-.06	1						
6	*ΔINVAR%*	-.14*	.13	-.18**	-.05	-.16**	1					
7	*ΔDEBT%*	-.08	.02	-.29**	-.03	.20*	-.01	1				
8	*ICD*	-.02	.28**	-.15*	.14*	.18*	.09	.06	1			
9	*LOSS*	-.08	.12	-.23**	-.08	-.12	.25**	.03	.16**	1		
10	*AUDITOR*	.01	.03	-.06	.04	.10	.11	.00	.01	-.04	1	
11	*BODTURN*	-.10	.14	.18**	.01	-.10	.01	.02	.01	-.00	.05	1

Notes:
*, ** $p < 0.1$ and $p < 0.05$, respectively.

3.2 Hypotheses Statement and Sample

Financial restatements are seen as a financial reporting failure. Prior literature shows that reporting failures will increase the client's risk assessment. Moreover, legislation states that past misstatements provides information for the auditor to determine the level of risk associated with the client in the current period (AICPA, 2006). This means that auditors will assign more audit risk to clients who have had an incorrect financial statement.

Also, financial restatements interfere with the firm's organizational legitimacy. A restatement damages the firm's reputation increasing the assigned audit risk by the auditor to the client (Feldmann et al., 2009). Prior literature shows that auditors' planning and pricing decisions are subject to the perceived risk associated with the client. The higher the (perceived) risk, the higher the audit fee (e.g. Hay et al., 2006). So, it is expected that higher audit risk is associated with higher audit fees. This provides hypothesis 1:

Hypothesis 1: *Audit fees are higher following a firm's financial restatement relative to firms without a financial restatement.*

A financial restatement impairs the firm's organizational legitimacy (Feldmann et al., 2009). This means that the social perception of a firm's behavior deviate from the desired social norms, values, and expectations by society. The firm cannot pursue its organizational activities effectively when this gap exists due to a breach in credibility and trust. A firm can undertake several strategies to repair the damaged reputation, e.g. replacement of the firm's strategic leaders (Suchman, 1995). Because of the fact that financial restatements are also seen as an oversight failure (Shrinivasan, 2005), replacing oversight boards could be one of the strategies the firm can execute (Arthaud-Day et al., 2006). Prior research showed (Desai et al., 2006; Shrinivasan, 2005) there is higher board of director and audit committee turnover subsequent to a restatement. This study will focus on the effect of board of directors turnover on the relationship between restatements and audit fees. In order to confirm that the sample used in this study corresponds with prior research, hypothesis 2 states as follows:

Hypothesis 2: *board of directors turnover is higher for firms having financial restatements relative to firms without financial restatements.*

In order to determine whether the chosen strategy is effective to repair the threatened legitimacy, the effect on audit fees is examined. Audit fees are used to measure the cost of the threatened legitimacy. The change of members in the board of directors could be an indicator for auditors that the firm is trying to regain its reputation. Additionally, it could be an indicator that the firm is adjusting its behavior to lower the likelihood of a breach in trust and credibility in the future. If this is the case, the client risk assessment could be reduced by the auditor. The reduction in risk assessment will lower audit fees. This implies that board of directors turnover will reduce the positive association between financial restatements and audit fees. This leads to the following hypothesis:

Hypothesis 3: *the relationship between restatement firms and subsequently higher audit fees weakens for firms changing the board of directors relative to restatement firms not changing the board of directors.*

This study concentrates on U.S. firms in order to acquire restatement firms from the Audit Analytics Database. Thus, first restatement firms are identified from the Audit Analytics database. There will be no distinction made between firms regarding to the cause of the restatement, the nature of the restatement or whether the restatement is forced by the auditor or SEC. Two restatement years are examined, namely the years 2007 and 2008. At the time of this study, the most recent financial reports which are certainly available, are the financial reports of the year 2010. Thus the years 2008 and 2007 are taken as restatement year to analyze the change of all variables two years after the taken restatement year. It is reasonable to take a period of two years subsequently the restatement year to analyze the effect of the restatement. If a period longer than two years

will be taken, the influence of the restatement on the examined variables could be affected by other conditions. Also, a period of two years after the restatement year is in line with prior literature (Feldmann et al., 2009).
Using Audit Analytics, 43 restatement firms are identified for the restatement year 2007. 13 firms are deleted due to a lack of data, 2 firms are deleted since those firms were duplicates, and 2 firms are eliminated since no control firm could be found. Eventually, 28 restatement firms could be used for the regression. For the restatement year 2008, 47 restatement firms have been identified. 19 firms are deleted due to a lack of data, and 1 firm has been deleted since it was a duplicate resulting in a final sample of 27 restatement firms for the year 2008. Table 1 summarizes the formation of the total sample.
After identifying the restatement firms for both years, all financial accounting data will be collected from the Compustat database. Data for certain variables not available in Compustat are collected otherwise. Hence, audit fees are collected from Audit Analytics. Furthermore, data concerning board of directors turnover and the control variable regarding the subsidiaries is collected manually using proxy statements (10-K statements) from the Edgar Online database. Lastly, a control group is identified using Compustat. Each restatement firm is linked with a control firm that is comparable on certain criteria, i.e. firm size, industry and audit firm. Total assets in the restatement year are taken to compare for firm size. A lower and upper 30% range of total assets is used to match the restatement firm with the control firm. The four-digit GICS code of the restatement firm is used to compare for industry classification. The audit firm during the restatement year is taken to match with the audit firm of the control firm. It is important that the control firm does not have a restatement. Since it is unknown how long a restatement could influence audit fees, only control firms are taken which do not have a restatement three years prior the restatement year and two years after the restatement year. This is verified using the restatement firms identified by Audit Analytics. Also, the same required data collected for the restatement firms are gathered for the control firms.

Two outliers in the sample outside two standard deviations have been identified. Excluding these two outliers does not alter the regression results considerably. For this reason, the complete sample has been used to run the regression.

4 Results and Discussions

Table 3 presents the results of the multivariate regression analysis. All firms are included in the regression analysis, i.e. outliers are not excluded. After analyzing the outliers in the sample outside two standard deviations, only 2 outliers have been identified. Excluding these 2 outliers does not lead to any (significant) differences in the results. Hence, the complete sample has been used to run the regression.
Model 1a in table 3 presents the results of the regression of the base model without the board of directors turnover variables. The model F-statistic is 2.089 (p-value of 0.038; significant at a 5% level) and the adjusted R^2 amounts 8.5%. When running the regression including the board of directors turnover variables, the overall F-statistic is 1.957 (p-value of 0.042; significant on a 5% level) and the adjusted R^2 increases up to 9.1%.
The variable *RESTATE* is positive and significant at a 10% level in model 1b. This means that hypothesis 1 is supported, showing that audit fees are higher following a firm's financial restatement relative to firms without a financial restatement. The variables *ΔLNTOTASSETS* and *FOREIGNOPER* are positive and significant at a 5% level as

predicted. However, the other variables are not significant. Moreover, the coefficients of the variables *ΔINVAR%, ΔDEBT%, ICD* and *AUDITOR* show a contrary sign as predicted and thus inconsistent with prior literature (Simunic, 1980; Hay et al. 2006; Simon & Francis, 1988). The coefficients of these variables are not significant. Therefore, no conclusions can be drawn from this result.

Table 4 reports two different t-tests to examine the board of director turnovers of the restatement firms and the control firms in the post-restatement period following the study of Feldmann et al. (2009). The post-restatement period is the period from the restatement year to two years after the restatement year. The first t-test is shown in Panel A of table 6. It shows a comparison of post-restatement board of directors turnover between restatement and control firms in order to analyze whether post-restatement turnover is higher for restatement firms relative to the control firms. A two-sample t-test has been performed. The results show that board of directors turnover is higher for restatement firms than for control firms, as predicted and consistent with prior literature (Arthaud-Day et al., 2006; Desai et al. 2006). However, the higher turnover for restatement firms does not differ significantly (p-value of 0.154) from the turnover for control firms. This is inconsistent with prior literature, where a significant difference has been found.

Table 3: Results OLS Regression of audit fee change model

$$\Delta LNFEE = \beta 0 + \beta 1 RESTATE + \beta 2\, \Delta LNTOTASSETS + \beta 3\, \Delta SQSUBS + \beta 4\, FOREIGNOPER + \beta 5\, \Delta INVAR\% + \beta 6 \Delta DEBT\% + \beta 7\, ICD + \beta 8 LOSS + \beta 9\, AUDITORCHANGE + \beta 10 BODTURN + \beta 11 RESTATE * BODTURN + \varepsilon$$

Variables		Pred. sign	Model 1a coefficient (t-statistic)	Model 1b coefficient (t-statistic)
β0	Constant	?	- (-1.26)	- (-0.88)
β1	*RESTATE*	+	0.16 (1.64)	0.25 (1.78)*
β2	*ΔLNTOTASSETS*	+	0.24 (2.36)*	0.26 (2.47)**
β3	*ΔSQSUBS*	+	0.12 (1.29)	0.13 (1.34)
β4	*FOREIGNOPER*	+	0.27 (2.65)**	0.26 (2.55)**
β5	*ΔINVAR%*	+	-0.07 (-0.67)	-0.08 (-0.80)
β6	*ΔDEBT%*	+	-0.06 (-0.55)	-0.04 (-0.37)
β7	*ICD*	+	-0.09 (-0.87)	-0.08 (-0.81)
β8	*LOSS*	+	0.03 (0.25)	0.04 (0.35)
β9	*AUDITOR*	-	-0.01 (-0.05)	0.00 (0.00)
β10	*BODTURN*	?		-0.06 (-0.36)
β11	*RESTATE * BODTURN*	-		-0.13 (-0.68)
	F-statistic (significance)		2.089 (0.038)**	1.957 (0.042)**
	Adjusted R^2		0.085	0.091

Notes: *, ** $p < 0.1$ and $p < 0.05$, respectively. Underlined coefficients: statistics contrary to predictions.

The variables correspond with the variables defined in table 2.

Table 4: Board of directors turnover (n = 106)

Panel A Comparison of post-restatement board of directors turnover between restatement and control firms			
Variable	Mean restatement firms (n = 53)	Mean control firms (n = 53)	Two-sample t-statistic (p-value)
BODTURN	1.7358	1.3019	1.437 (0.154)
Panel B Comparison of pre-restatement to post-restatement board of directors turnover			
	Mean pre-restatement turnover (n = 53)	Mean post-restatement turnover (n = 53)	Matched-Pair t-statistic (p-value)
Turnover of restatement firms	0.2453	0.7358	-6.596** (0.000)
Turnover of control firms	0.1132	0.6038	-7.076** (0.000)

Notes: ** $p < 0.05$.
The variable *BODTURN* in panel A corresponds with *BODTURN* as explained in table 2. Panel B measures board of directors turnover as a dummy variable in the pre-restatement and post-restatement period. Turnover is set equal to 1 when minimal one member of the board has been replaced; 0 otherwise.

The second t-test has been presented in Panel B of table 4. It shows a comparison of pre-restatement to post-restatement board of directors turnover. The pre-restatement period refers to two years before the restatement year. The post-restatement period refers to the restatement year and two subsequent years. Following the study of Feldmann et al. (2009), board of directors turnover in the pre- and post-restatement period is measured as a dummy variable. Turnover is set equal to 1 when a minimum of one member of the board has been replaced; zero otherwise. Panel B of table 4 shows that the turnover for restatement firms is significantly higher in the post-restatement period than in the pre-restatement period (p-value of 0.000). This result is in line with expectations from prior literature (Feldmann et al., 2009). However, the turnover for control firms is also significantly higher in the post-restatement period than in the pre-restatement period (p-value of 0.000). This is inconsistent with prior literature. Therefore, hypothesis 2 is not supported, i.e. board of directors turnover is not higher for firms having financial restatements relative to firms without financial restatements.
Table 3 presents the results to test hypothesis 3, i.e. the relationship between firms having financial restatements and subsequently higher audit fees weakens for firms changing the board of directors. The coefficient of the interaction variable *RESTATE * BODTURN*, which test hypothesis 3, is negative, as predicted. However, the interaction between restatements and board of directors turnover is not significant. Therefore, hypothesis 3 is not supported implying that board of directors turnover does not negatively moderate the positive relationship between restatements and audit fees.

4.1 Exclusion of Specific Control Variables from the Audit Fee Model

In order to test the robustness of the results, additional analyses have been performed. First, selected control variables are excluded from the model presented in table 5 to analyze the effect on the results. Second, an alternative measurement of the audit fee model is applied to test hypothesis 1 and 3.
As explained above, the results show that board of directors turnover does not weaken the

positive relationship between restatements and audit fees. Hence, some additional analyses on the model, presented in table 5, are performed in order to detect possible changes in the results. The table first shows the F-statistic (1.957) and adjusted R^2 (9.1%) of the audit fee change model including all variables. Next, the variable *ΔDEBT%* is excluded from the model because of the observed negative relationship between the change in long-term debt as a percentage of total assets and the change in audit fees, which was contradictory to expectations. A further analysis of the long-term debt in the sample shows that the long-term debt of 40 firms in the sample amounts zero. This affects the calculation of this control variable coefficient in such a way that the change in long-term debt to total assets will be zero. Therefore, it is explained that the coefficient of *ΔDEBT%* has a negative sign. For this reason, the regression has been run again without *ΔDEBT%.* Model 2 in table 5 provides the results. Now, the F-statistic and the adjusted R^2 increases up to 2.159 (p-value of 0.027) and 9.9% respectively.

Also, the variable *ICD* is excluded from the complete model to analyze the results. The coefficient in model 1 of *ICD* has a negative sign, which is contrary to expectations. Moreover, there exists a high correlation between *ICD* and the variable *RESTATE* at a 5% significance level (Pearson = 0.28). This correlation could raise issues with multicollinearity. It is remarkable that the same issue has been detected in the study by Feldmann et al. (2009). This study excluded this dummy variable for an additional analysis. However, no changes in the results are examined in this study. In order to determine whether the high Pearson correlation between *ICD* and the variable *RESTATE* does have influence on the results, the model is analyzed without the variable *ICD*. Model 3 in table 5 provides the results. The F-statistic and the adjusted R^2 increases up to 2.095 (p-value of 0.032) and 9.4% respectively.

Furthermore, the variable *AUDITOR* is excluded from the complete model. Model 1b in table 5 shows a positive sign for the coefficient of *AUDITOR*, which is contrary as predicted. After a closer examination of this variable, this could be explained by two reasons. First, the descriptive statistics provided in table 3 illustrate that most firms in the sample have not changed their auditor (overall mean of 0.1038). This low mean can reduce the negative effect of auditor changes on audit fees. Second, it was assumed that most auditor changes would be from a Big 4 to a Non-Big 4 audit firm. After an extra analysis of the firms in the sample which did change audit firm during the taken period, it appears that this assumption does not hold. Audit firm changes were from Big 4 to Non-Big 4 firms and vice versa in equivalent proportion. Model 4 in table 5 presents the results of the model without the variable *AUDITOR*. The F-statistic increases from 1.957 (p-value of 0.042) of model 1b to 2.176 (p-value of 0.026). The adjusted R^2 changes from 9.1% to 10.1%, which is an increase of 11.0%.

Table 5: Regression results of model excluding certain variables

	Model 1b	Model 2	Model 3	Model 4	Model 5
Excluded Variables:	-	*ΔDEBT%*	*ICD*	*AUDITOR*	*ΔDEBT%, ICD, AUDITOR*
F-statistic (significance)	1.957 (0.042)**	2.159 (0.027)**	2.095 (0.032)**	2.176 (0.026)**	2.654 (0.011)**
Adjusted R^2	0.091	0.099	0.094	0.101	0.112

Notes: ** $p < 0.05$
The variables correspond with the variables defined in table 2.
The complete results of model 1b are presented in table 5.

Table 6: Results OLS Regression: *ΔDEBT%, ICD, AUDITOR* excluded

$$\Delta LNFEE = \beta 0 + \beta 1 RESTATE + \beta 2\, \Delta LNTOTASSETS + \beta 3\, \Delta SQSUBS + \beta 4\, FOREIGNOPER + \beta 5\, \Delta INVAR\% + \beta 6 \Delta DEBT\% + \beta 7\, ICD + \beta 8 LOSS + \beta 9\, AUDITOR + \beta 10 BODTURN + \beta 11 RESTATE * BODTURN + \varepsilon$$

Variables		Pred. sign	Model 5 coefficient (t-statistic)
β0	Constant	?	- (-0.86)
β1	*RESTATE*	+	0.23 (1.69)*
β2	*ΔLNTOTASSETS*	+	0.28 (2.82)**
β3	*ΔSQSUBS*	+	0.11 (1.23)
β4	*FOREIGNOPER*	+	0.23 (2.45)**
β5	*ΔINVAR%*	+	-0.09 (-0.86)
β6	*ΔDEBT%*	+	-
β7	*ICD*	+	-
β8	*LOSS*	+	0.02 (0.25)
β9	*AUDITOR*	-	-
β10	*BODTURN*	?	-0.06 (-0.36)
β11	*RESTATE * BODTURN*	-	-0.14 (-0.74)
	F-statistic (significance)		2.654 (0.011)**
	Adjusted R^2		0.112

Notes: *, ** $p < 0.1$ and $p < 0.05$, respectively. Underlined coefficients: statistics contrary to predictions.

The variables correspond with the variables defined in table 2.

Finally, all three variables which are described above are excluded from the model to analyze the effect. Model 5 in table 5 presents the results. The F-statistic is 2.654 (p-value of 0.011) and the adjusted R^2 is 11.2%. Excluding these three variables does not influence the significance levels of the other variables of the model as presented in table 6. The conclusions regarding the hypothesis based on model 1 remain the same.

4.2 Alternative Measurement of the Audit Fee Model

The audit fee change model used in this study consists of change variables to measure the effect of a restatement on the change in audit fees two years after the restatement year and the restatement year itself. Another audit fee model is used in prior literature without change variables (e.g. Francis & Simon, 1987). This model is also tested to examine whether the results of the audit fee change model correspond with the alternative audit fee model. If that model is applied on this study, the model states as follows:

$$LNFEE2 = \beta 0 + \beta 1\, RESTATE + \beta 2\, LNTOTASSETS + \beta 3\, SQSUBS + \beta 4\, FOREIGNOPER + \beta 5\, INVAR\% + \beta 6 DEBT\% + \beta 7\, ICD + \beta 8\, LOSS + \beta 9\, AUDITOR + \beta 10\, BODTURN + \beta 11\, RESTATE * BODTURN + \beta 12\, LNFEE + \varepsilon$$

The dependent variable in this model is *LNFEE2*, which represents the natural log of the

audit fees two years after the restatement year. The independent variables correspond with the variables in the previous audit fee model. However, no change variables are used, but these variables in this model are all taken using data from two years after the restatement year. The independent variable *LNFEE* has been added, which represents the natural log of audit fees in the restatement year.

The results, shown in table 7, present an overall F-statistic of 41.176 (p-value of 0.000) and an adjusted R^2 of 82.1%. This increase in the overall F-statistic and adjusted R^2 is consistent with the study of Feldmann et al. (2009), who also used this alternative specification of the audit fee model next to the audit fee change model. Furthermore, the variable *RESTATE*, which test for hypothesis 1, has a positive coefficient, as predicted, but is not significant. This result provides no support for hypothesis 1. Also, the interaction variable *RESTATE * BODTURN* has a negative coefficient, as predicted, but is not significant. Thus, hypothesis 3 cannot be supported as in the audit fee change model.

Table 7: Results OLS Regression alternative audit fee model

LNFEE2 = $\beta 0 + \beta 1$ *RESTATE* $+ \beta 2$ *LNTOTASSETS* $+ \beta 3$ *SQSUBS* $+ \beta 4$ *FOREIGNOPER* $+ \beta 5$ *INVAR%* $+ \beta 6$ *DEBT%* $+ \beta 7$ *ICD* $+ \beta 8$ *LOSS* $+ \beta 9$ *AUDITOR* $+ \beta 10$ *BODTURN* $+ \beta 11$ *RESTATE * BODTURN* $+ \beta 12$ *LNFEE* $+ \varepsilon$

Variables		Pred. sign	Model 1a coefficient (t-statistic)	Model 1b coefficient (t-statistic)
$\beta 0$	Constant	?	- (8.771)**	- (8.689)**
$\beta 1$	*RESTATE*	+	0.042 (0.932)	0.069 (1.130)
$\beta 2$	*LNTOTASSETS*	+	0.267 (4.531)**	0.254 (4.293)**
$\beta 3$	*SQSUBS*	+	0.122 (2.454)**	0.143 (2.794)**
$\beta 4$	*FOREIGNOPER*	+	0.205 (4.639)**	0.216 (4.855)**
$\beta 5$	*INVAR%*	+	-0.149** (-3.199)	-0.141 (-3.015)**
$\beta 6$	*DEBT%*	+	-0.040 (-0.882)	-0.026 (-0.559)
$\beta 7$	*ICD*	+	0.051 (1.079)	0.056 (1.206)
$\beta 8$	*LOSS*	+	-0.051 (-1.050)	-0.048 (-0.992)
$\beta 9$	*AUDITOR*	-	0.005 (0.106)	-0.005 (-0.118)
$\beta 10$	*BODTURN*	?	-	0.116 (1.647)
$\beta 11$	*RESTATE * BODTURN*	-	-	-0.071 (-0.859)
$\beta 12$	*LNFEE*	?	0.566 (9.639)**	0.543 (8.972)**
	F-statistic (significance)		48.568 (0.000)**	41.176 (0.000)**
	Adjusted R^2		0.819	0.821

Notes: *, ** $p < 0.1$ and $p < 0.05$, respectively. Underlined coefficients: statistics contrary to predictions.
The dependent variable *LNFEE2* represents the natural log of audit fees two years after the restatement year. The independent variables *RESTATE, FOREIGNOPER, ICD, LOSS, AUDITOR, BODTURN, RESTATE * BODTURN* correspond with the variables defined in table 2. The independent variables *LNTOTASSETS, SQSUBS, INVAR%, DEBT%* correspond with the change variables defined in table 2. However, these variables (*LNTOTASSETS, SQSUBS, INVAR%, DEBT%*) are calculated using the data two years after the restatement year. The independent variable *LNFEE* is the natural log of audit fees in the restatement year.

This alternative model confirms that the analyzed relationship between financial restatements and audit fees using the change model does not hold. It can be concluded that the weak support for hypothesis 1, which has been found applying the change model, cannot be endorsed. Therefore, hypothesis 1 is rejected. Moreover, the alternative model confirms that the interaction variable between restatements and board of directors turnover is not significant. Hence, hypothesis 3 is rejected.

5 Conclusion

Since 2002 the number of financial restatements increased drastically due to financial reporting fraud and/or accounting errors (GAO, 2006). These restatements could bring negative (market) effects such as a drop in a company's stock price. Another consequence of restatements is the interference with the firm's organizational legitimacy. Auditors could assign higher risk to restatement firms due to the fact that restatements are seen as a financial reporting failure and damage a firm's reputation. Due to these negative effects and consequences, financial restatements are worth analyzing. Prior literature states that financial restatements and subsequent audit fees are positively related (Feldmann et al., 2009), since auditors assign higher risk to a restatement firm resulting in a higher audit fee. However, firms can perform strategies to repair the damaged reputation, e.g. changing the strategic leaders of a firm (Arthaud-Day et al., 2006).
This study has examined the association between financial restatements and audit fees, and the effect of board of directors turnover on this relationship. The research design is built upon the audit fee change model from Feldmann et al. (2009). Based on prior literature, it was predicted that there exists a positive relationship between restatements and audit fees (hypothesis 1). The findings provided weak to no support for this prediction.
Further, it was expected that board of directors turnover is higher for restatement firms relative to non-restatement firms (hypothesis 2). The results do not support this hypothesis. There is higher board of directors turnover in the post-restatement period. However, there is no higher turnover for restatement firms relative to the control group.
Moreover, it was predicted that the expected positive relationship between restatement firms and subsequently higher audit fees weakens for firms changing the board of directors relative to restatement firms not changing the board of directors (hypothesis 3). The results show, as expected, a negative association between the interaction variable and the dependent variable, which test this hypothesis. However, a significant moderating effect between restatement and audit fees caused by board of directors turnover has not been found.
It can be concluded that this study fails to provide evidence for the formulated hypotheses. Based on the discussion, this could have been caused by several reasons. For example, auditors do not perceive a restatement as severe as a few years ago due to the decrease in

the number of restatements and the decrease in egregiousness. Also, board of directors turnover is influenced by other factors, which might be more severe than a restatement. Moreover, the taken restatement years, 2007 and 2008, which are during the financial crisis, could have influenced the results.

Consequently, this implies that this study contradicts prior literature (Feldmann et al., 2006; Arthaud-Day et al., 2006). There is no significant positive relationship between restatements and audit fees. Also, there is no significant higher board of directors turnover for restatement firms relative to the control firms. Moreover, board of directors turnover does not weaken the relationship between restatements and audit fees. Hence, this implies that board of directors turnover is not a likely strategy for firms regaining their impaired legitimacy due to a restatement.

This study contributes by responding to the call of Feldmann et al. (2009) to examine other possible indicators that firms take to repair legitimacy due to a restatement. It can be stated that board of directors turnover is not an indicator. Moreover, the positive relationship between restatement and audit fees is not that strong, implying that audit fees are rather influenced by other factors (in times of crisis).

The findings, however, are subject to some limitations. First of all, no distinction has been made between intentional and unintentional restatements. The negative consequences due to a fraudulent restatement are more severe than the negative consequences of restatement caused by an error (Hennes et al., 2008). So, if only fraudulent restatements were used in the sample, the results could have been different. Second, the taken restatement years are during the financial crisis. A crisis could influence people's decision making process severely (Sayegh et al., 2004). This might have affected auditors' decision making regarding the audit fees and firms' choices whether some board memberships should be terminated or not. Third, the taken sample is quite small. Only 53 restatement firms in the U.S. have been identified in 2007 and 2008. A longer period to test the hypotheses could provide additional evidence. Overall, these factors could have an effect on the findings.

Future research could also respond to the call of Feldmann et al. (2009) to analyze possible indicators that firms take to repair impaired legitimacy due to a restatement, since this study did not find an additional indicator. Also, the effects of restatements on auditors could be explored more. This study shows that restatements do not have some significant effect on audit fees. The question remains whether this finding is only attributable to the chosen restatement years or are there other reasons? Additionally, how audit fees are determined remains a vague issue. Both issues could be explored by doing qualitative research using surveys or interviews among auditors. Exploring how restatements are perceived by auditors could provide valuable insights for future studies related to restatements and audit fees. Another issue worth investigating, are possible other consequences for firms which try to repair their legitimacy. A change in strategic leadership will cause other changes, which could be both beneficial and harmful. Then, a clearer trade-off could be demonstrated for why firms make certain strategic choices.

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