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NON-TIMELY FILERS AND AUDIT QUALITY VARIATION

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Abstract:

This paper examines the variation in audit quality between non-timely filers and propensity matched samples of timely filers. In differentiating my study from others of similar setting, I examine all non-timely filers, consecutive non-timely filers, and non-consecutive non-timely filers separately. Additionally, I examine the variation in audit quality associated with the number of days of the grace period utilized before filing the audit opinion. I find that non-timely filers are typically associated with lower audit quality when compared to a propensity-matched sample of timely filers. However, clients with Big 4 auditors largely mitigate the association between non-timely filers with low quality and, in some cases, even improve audit quality for non-timely filers versus timely filers. I also find evidence of an effect of incremental audit effort on the association between audit quality and non-timely filers. That is, the number of days utilized of the statutory grace period has an impact on audit quality. Interestingly, across the non-timely filer sample partitions and auditor sizes (Big 4/non-Big 4), there is no single day that is more associated with high or low quality for every quality proxy even after controlling for events that may influence a company's reporting delay. This study contributes to our understanding of non-timely filers, their unique characteristics, and the impact on audit quality when effort is variable.

Keywords: Form 12b-25, non-timely, delay, audit quality, audit effort, Big 4, discretionary revenues, discretionary accruals, restatements

1. INTRODUCTION

The fiscal year-end close and subsequent audit of the annual financial statements is a busy time-period for both auditors and their clients. Economic events such as financial distress and the possibility of bankruptcy can exacerbate the stress associated with this time period and lead to financial report delays (Alford et al. 1994). In the event a company cannot meet its filing deadline stipulated by the Securities and Exchange Commission (SEC), they must file a form 12b-25, Notification of Late Filing (NT), no later than one day after the periodic filing is due to avoid incurring penalties or facing legal repercussions.

The compilation of financial statements may be scrutinized by auditors when the client cannot file on-time (Wang et al. 2013). Substantive and controls testing issues may be addressed by increasing the planned amount of audit hours (O'Keefe et al. 1994; Caramanis and Lennox 2008; Calderon et al. 2012), modifying the nature of the planned testing (Hackenbrack and Knechel 1997), and/or assigning more experienced auditors or specialists to the audit engagement (Johnstone and Bedard 2001, 2003). That is, the auditor may respond to client related issues through the expenditure of effort which leads to an increase in audit fees (Simunic 1980; Wang et al. 2013). The relationship between reporting delay and audit effort is endogenous in that, the auditor may respond to client delay with increased audit effort which requires more engagement hours or auditor identification of material issues may cause the auditor to increase testwork which leads to reporting delay. An increase in audit effort should, ceteris paribus, increase audit quality and therefore decrease the magnitude of earnings management (Caramanis and Lennox 2008). However, some conflicting forces are at work in this setting of non-timely filers.

Instances of late filing increase information asymmetry and trading costs by delaying financial disclosures that help constituents make informed decisions (Glosten and Milgrom 1985). As such, the stock market responds negatively to delayed financial reports (Alford et al. 1994; Bartov et al. 2013) and even more negatively to firms that fail to file within the SEC's allotted grace period of 15 days past the original filing deadline (Bartov et al. 2013). Some documented reasons for late filings include unresolved accounting issues (Bartov et al. 2013), unresolved controls testing issues and employee turnover (Ettredge et al. 2006; Impink et al. 2012)to name a few. The auditor can address some of these issues by modifying the nature and scope of audit procedures while other issues necessitate discussion and negotiation between the auditor and management (Antle and Nalebuff 1991; Gibbins et al. 2001). Big 4 auditors may mitigate to some degree the negative association between non-timely filers and audit quality. Extant literature widely suggests that Big 4 auditors provide higher-quality audits than non-Big 4 auditors (Palmrose 1988; Becker et al. 1998; Khurana and Raman 2004; Lennox and Pittman 2010). Big 4 auditors are also more likely to guard their reputational capital by expanding the nature and scope of audit procedures (Dopuch and Simunic 1980; Caramanis and Lennox 2008).

In this paper, I investigate whether non-timely filers (matched with timely filers based on propensity scores) are associated with significantly different measures of audit quality as proxied by absolute discretionary revenues (Stubben 2010; Mutlu 2013), absolute discretionary accruals (Dechow et al. 1995; Kothari et al. 2005), and the probability of a late 10-K filing being restated in future periods (Boone et al. 2015; Cao et al. 2016). I also investigate whether the number of grace period days utilized influences audit quality using the same aforementioned proxies. That is, the literature on non-timely filers thus far suggests that differences may exist amongst companies that file early in the grace period (1 to 5 days) versus later in the grace period (6 to 15 days) and thereafter (beyond 15 days) (Impink et al. 2012; Bartov et al. 2013; Cao et al. 2016).

Cao et al. (2016) finds that first-time non-timely filers are associated with lower financial reporting quality as proxied by absolute discretionary accruals and the probability of future restatement. I differentiate my study from theirs on several dimensions. First, I use the Stubben (2010) model to examine an income statement form of earnings management. Secondly, my main sample is composed of all non-timely filers including those who filed non-timely multiple years in a row while my additional sample partitions examine consecutive and non-consecutive non-timely filers separately. Thirdly, I examine only the post-SOX period (i.e. 2004 and beyond) in my sample to eliminate any pre-SOX period quality differentiation (i.e. Arthur Andersen, ICOFR opinions, etc.). Finally, I examine the same audit quality dimensions using only NT filers and investigate whether the number of grace period days utilized influences audit quality (i.e. the effect of days).

Overall, I find that , when compared to a propensity-matched sample of timely filers, non-timely filers are associated with lower audit quality. Clients with Big 4 auditors largely mitigate the association between non-timely filers with low quality, however, the "Big 4 effect" is not uniform across the sample partitions (i.e. all non-timely filers, consecutive non-timely filers, and non-consecutive non-timely filers). I also find evidence of an effect of incremental audit effort on the association between audit quality and non-timely filers. That is, the number of days utilized within the grace period has an impact on audit quality. Again, clients with Big 4 auditors tend to have higher quality when the auditors use more (rather than fewer) days of the grace period to file their respective audit opinions. However, across the non-timely filer sample partitions, there is no single day that is more associated with high quality for every proxy even

after controlling for events that may influence a company's reporting delay. Overall, the results suggest that while non-timely filers encounter issues and events that are detrimental to audit quality, at least a certain degree of audit quality can be enhanced (or recaptured) through audit effort associated with the additional grace period days used to perform audit procedures and resolve (or allay) client issues.

This paper furthers researchers' understanding of non-timely filers and how non-timely filers vary in terms of quality. Prior research has examined whether non-timely filers are met with negative market reactions and whether first-time non-timely filers incur higher audit fees or are associated lower financial reporting quality. Research has yet to address the variation in audit quality dependent on the number of grace period days utilized or dependent on whether the company files non-timely multiple years in succession. Practitioners and regulators may be interested to know whether and under what circumstances non-timely filers differ from timely filers in terms of audit quality. Additionally, findings concerning which grace period days are likely to be associated with higher/lower audit quality could help regulators focus their inspections towards more risky engagements.

The remainder of the paper is organized as follows. Section 2 discusses background and hypothesis development. Section 3 covers research design. Sample attrition is presented in section 4. Descriptive statistics and regression results are reported in section 5. Section 6 reports additional analyses. Section 7 concludes.

2. BACKGROUND AND RESEARCH QUESTION DEVELOPMENT

Bartov et al. (2013) find a significant negative market reaction to late annual filing announcements (10-Ks) and the negative reaction is even stronger for late quarterly-filing announcements. Additionally, they find a significantly larger negative reaction to NT filers that fail to file within the grace period compared to companies that meet the stipulated deadline. As such, the market perceives some degree of negative information content associated with late filing. Consistent with the negative effects of late filings, Bartov et al. (2013) found that in the two years after the late filing announcement 16.2 percent of their sample firms stopped trading on exchanges for reasons other than mergers.

Wang et al. (2013) mentions that the form NT 10-K filing indicates an inability by the firm to prepare completed financial statements on a timely basis. As such, the systems and control processes behind the preparation of the financial statements may be viewed as "problematic" by the auditors. Auditor suspicion appears well placed in that Impink et al. (2012) and Ettredge et al. (2006) find evidence that firms with material weakness opinions are associated with longer reporting delays and late filings. Moreover, Cao et al. (2016) finds that first-time late filers are associated with lower financial reporting quality as shown by higher levels of discretionary accruals and increased likelihood of future restatements. Cao et al. (2016) and Impink et al. (2012) suggest that, although companies are required to disclose the reason(s) behind their non-timely filing, companies experience incentives to "water-down" the negative information content associated with the late filing. As such, a company's self-reported reasons may actually increase information asymmetry (rather than decrease it) via disclosure.

Auditors tend to assign a higher risk of material misstatement to companies whose controls and processes around generation of the financial statements is expected to be deficient. Subsequently, an auditor may assign a lower planned detection risk through higher levels of audit effort which results in higher audit fees. In addition, there are many possible adverse consequences associated with non-timely filings which can lead to auditors assessing a higher

risk of material mistatement. Wang et al. (2013) motivate their paper with the expectation that Form NT 10-K filings are associated with higher audit fees either due to auditors increasing the audit effort for such clients or due to a risk premium attached to various levels of deficient financial statement processes. Caramanis and Lennox (2008) find that audit hours incurred on an engagement are negatively associated with earnings management. This suggests that, to a degree, auditors can address their increased risk assessment with additional audit procedures.

Knechel and Payne (2001) examine the relationship between audit report lag and incremental audit effort using a sample of 226 engagements from an international accounting firm. They show that that audit report lag is increased by incremental audit effort, contentious tax issues, and decreased by the use of more experienced external audit personnel and the synergistic relationship between non-audit services and audit services. The authors mention that the more hours an engagement incurs, the longer the audit report will lag. Therefore, incremental audit effort could increase lag. However, if audit productivity is reduced (more audit man-hours than what is necessary), then audit report lag may increase without an associated increase in audit quality (i.e. audit inefficiency).

Late filings are an interesting setting in which to examine quality due to the conflicting forces at work. On one hand, late filing firms are subject to significantly negative market reactions (Bartov et al. 2013) and controls testing issues (Ettredge et al. 2006; Impink et al. 2012), which could imply lower audit quality. On the other hand, late filing firms take more time to complete the audit (Knechel and Payne 2001) and pay higher audit fees (Wang et al. 2013), which could imply additional audit hours incurred to enhance audit quality and reduce earnings management (Caramanis and Lennox 2008). As such, I pose my first research question in non-directional form: do non-timely filers have significantly different audit quality when compared to timely filers?

Bartov et al. (2013) find that firms that file within the latter days of the grace period (more than 5 days) experience a more negative market reaction than those who file early in the grace period (1-5 days). Wang et al. (2013) also find that firms who fail to file the form 10-K even after being granted the 15 day grace-period pay higher fees than non-timely filers who file within the extension period. Cao et al. (2016) find that there is greater variation in financial reporting quality between Big 4 and non-Big 4 auditors amongst firms that file within the 15-day extension period versus beyond the extension period. Their findings are similar when the sample is based on a longer delay, within or beyond 45 days. This stream of research examines is that the number of days used to file the 10-K has an effect on the dependent variable. To investigate this, I look at a more disaggregated measurement approach with regard to the number of days used before the auditor's opinion is filed. Hence, my second research question: amongst late filers, does audit quality vary depending on the number of days past due taken to complete the audit?

3. RESEARCH METHOD AND DESIGN

To address my first research question, I compare the audit quality of companies that filed Form 12b-25 (NT filers) to the audit quality of matched control companies that filed on the stipulated deadline. In terms of audit quality proxies, I examine discretionary revenues (Stubben 2010), performance-matched discretionary accruals (Kothari et al. 2005), and subsequent restatement of the year t financials (e.g. Boone et al. 2015, Cao et al. 2016). The following section details the propensity score matching considerations of my research design.

Propensity score matching

To address the self-selection bias inherent with non-timely filers, I use a propensity-score matched-pair research design to match non-timely filing (NT_FILER=1) companies and timely filing (NT_FILER=0) companies using a variety of factors. The propensity-score method allows matching upon multiple dimensions and is more robust to a partial-matched econometric method using limited parameters such as firm size and industry (Armstrong et al. 2009; Lawrence et al. 2011). Additionally, matching models do not depend on a predefined form to provide an indirect estimate of the treatment effects (Li and Prabhala 2007). Moreover, matching models mitigate the potential impact of nonlinearities in estimating the treatment effects when the underlying functional form is nonlinear (Lawrence et al. 2011). Rather than relying on a specified form (as is the case with Heckman 1979 selection models), matching models require the inclusion of a comprehensive set of determinants important when estimating the propensity score. I estimate a propensity-score design following Cao et al. (2016) for the probability of filing non-timely dependent on observable dimensions affecting filing delays suggested by prior research and all control variables in the audit quality analyses (see Table 1 for variable definitions; firm and time subscripts are omitted for presentational brevity):

TABLE 1 : VARIABLE DEFINITIONS

ADA	Absolute values of performance-matched discretionary accruals per Kothari et al. (2005)
ADR	Absolute values of discretionary revenues per Stubben (2010)
FUTURE_RESTATE	1 if the late 10-K filing (or a matched timely filing) is restated in a period and 0 otherwise
NT_FILER	1 if the firm files Form 12b-25 and 0 otherwise
Serial_NT	1 of the firm filed non-timely in year t and year t-1 and 0 otherwise
Grace_1	1 if the firm filed the late 10-K on the first day of the grace period as allowed by rule 12b-25 and 0 otherwise (other Grace_X variables are similarly defined)
Grace_1_5	1 if the firm filed the late 10-K within 1 to 5 days of the grace period as allowed by rule 12b-25 and 0 otherwise (other Grace_X_X+4 variables are similarly defined)
B4	1 if the auditor is a member of the Big 4 auditors and 0 otherwise
NTB4	1 if a Big 4 member audits a non-timely filer and 0 otherwise
SIZE	The natural logarithm of a client's total assets
FININD	1 if the firm operates in financial industry and 0 otherwise
HIGHTECH	1 if the firm operates in high-tech industry and 0 otherwise
ROA	Income before extraordinary items divided by average total assets
LEVERAGE	The ratio of long-term debt to total assets
GOING_CONCERN	1 if the firm receives a going-concern opinion and 0 otherwise
EXT	1 if the firm reports extraordinary items for the current year and 0 otherwise
OPSEG	The number of reported operating segments (from Compustat Segment file)
GEOSEG	The number of reported geographic segments (from Compustat Segment file)
LOSS	1 if the firm reports negative income before extraordinary items for the current year and 0 otherwise
RESTATE	1 if the firm restated its financial reports in the current year and 0 otherwise
MODOPIN	1 if the firm receives a modified opinion other than going concern on the financial statements and 0 otherwise
AUDCHG	1 if a firm changes auditor during the current year and 0 otherwise
INFLUENCE	The ratio of a specific client's total fees (audit fees plus nonaudit fees) relative to aggregate annual fees generated by the practice office that audits the client
SHORT_TENURE	1 if auditor tenure is three years or less and 0 otherwise
SALESGROWTH	One-year growth rate of a firm's sales revenue

STD_SALES	The standard deviation of sales, calculated over the prior three fiscal years
CFO	Operating cash flows deflated by lagged total assets
STD_CFO	The standard deviation of cash flow from operations divided by total assets, calculated over the prior three fiscal years
ALTMAN	Altman's [1983] scores
MB	The ratio of a client's market value of equity to its book value of equity
MATWEAK	1 if the firm receives a material weakness opinion and 0 otherwise
AUD_WLC	Ratio of total audit fees generated by a local office of an auditor during the fiscal year-end month of a client to total audit fees generated by the local office during a year (as defined by Lopez and Peters 2011)

$$NT\_FILER = \beta_0 + \beta_1 SIZE + \beta_2 FINDIND + \beta_3 HIGHTECH + \beta_4 ROA + \beta_5 LEVERAGE + \beta_6 GOING\_CONCERN + \beta_7 EXT + \beta_8 OPSEG + \beta_9 GEOSEG + \beta_{10} LOSS + \beta_{11} RESTATE + \beta_{12} MODOPIN + \beta_{13} AUDCHG + \beta_{14} AUD\_WLC + \sum PROXY\_CONTROLS + Year\_FE + Industry\_FE + error$$

where the dependent variable, *NT_FILER*, equals 1 if the firm files a Form 12b-25 to delay a 10-K filing and 0 otherwise. Following prior research (Ashton et al. 1989; Kinney Jr and McDaniel 1993; Ettredge et al. 2006; Impink et al. 2012; Cao et al. 2016), I include a number of factors that likely determine whether a firm files non-timely: client size (*SIZE*), indicators of financial and high-tech industries which are subject to industry specific risk profiles (*FININD* and *HIGHTECH*), a firm's financial state which includes financial leverage, return on assets, going concern opinion, loss indicator (*LEVERAGE, ROA, GOING_CONCERN*, and *LOSS*), reporting extraordinary items (*EXT*), business complexity as proxied by the number of operating and geographic segments (*OPSEG* and *GEOSEG*), an indicator of restatements filed in year t (*RESTATE*), audit workload compression which measures the degree to which the auditor is encumbered by engagements during the fiscal year-end month (López and Peters 2011) (*AUD_WLC*), modified audit opinions (*MODOPIN*), and an indicator of auditor changes (*AUDCHG*). I also include all control variables in the audit quality analyses (*PROXY_Controls*) except for those redundant to the variables in predicting late filings. I then identify matched-pairs using a fixed caliper distance of 0.03 and 1 to 1 matching (Lawrence et al. 2011; DeFond et al. 2014). That is each treatment firm (*NT_FILER*=1) is matched to one control firm (*NT_FILER*=0) within the fixed caliper distance. I perform propensity score matching using the aforementioned method for each of my three NT_FILER subgroups: All NT filers (*NT_FILER* =1), consecutive NT filer (*Serial_NT*=1), and non-consecutive NT filers (*NT_FILER* =1 and *Serial_NT* =0).

Measures of audit quality

In addition to the traditional balance sheet approach of examining earnings management (i.e. accruals), earnings can be managed by manipulating income or expenses. As such, revenues are an attractive target for managers seeking to either inflate current period net income or move current period income to future periods. In considering whether NT filing firms are more or less likely to engage in this type of earnings management, I examine discretionary revenues as specified by Stubben (2010). Specifically, I use Stubben's conditional revenue model that takes into consideration a firm's credit granting policies (i.e. policies that influence both levels and changes of revenues and accounts receivable). Stubben's conditional model is specified as follows:

$$\Delta AR = \alpha + \beta_1 \Delta REV + \beta_2 \Delta REV*SIZE + \beta_3 \Delta REV*AGE + \beta_4 \Delta REV*AGE^2 + \beta_5 \Delta REV*GRR\_P + \beta_6 \Delta REV*GRR\_N + \beta_7 \Delta REV*GRM + \beta_8 \Delta REV*GRM^2 + error$$

Where *ΔAR* is accounts receivable in year t less accounts receivable in year t-1; *ΔREV* is revenue in year t less revenue in year t-1; *SIZE* is measured as the natural log of total assets; *AGE* the natural log of the firm's age in years; AGE^2 is the natural log of the firm's age squared in years to allow for a nonlinear relation between age and credit policy (Petersen and Rajan 1997); *GRR_P* and *GRR_N* are the positive and negative industry-median-adjusted growth rate in revenues, respectively; and *GRM* and GRM^2 are the industry-median-adjusted gross margin and its square, respectively. Consistent with Mutlu (2013), I estimate *ADA* as the absolute value of the error term in the above regression.

Significant discretionary accruals can be construed as earnings management and lower audit quality (Schipper and Vincent 2003; Richardson et al. 2005; Caramanis and Lennox 2008). For this quality proxy, I estimate the absolute value of performance-matched discretionary accruals (*ADA*) as the absolute value of the difference between the modified Jones model discretionary accrual and the corresponding discretionary accrual for a performance-matched firm (Kothari et al. 2005). The modified Jones model (Dechow et al. 1995) is as follows:

$$(Total\_Accruals/AT_{t-1}) = \alpha_0 + \alpha_1(1/AT_{t-1}) + \alpha_2((\Delta REV - \Delta AR)/AT_{t-1}) + \alpha_3(PPE/AT_{t-1}) + error$$

Where *Total_Accruals* is net income before extraordinary items minus cash flow from operations; AT_{t-1} is the beginning of fiscal year t total assets; *ΔREV* is revenue in year t less revenue in year t-1; *ΔAR* is accounts receivable in year t less accounts receivable in year t-1; and *PPE* is property, plant, and equipment net of accumulated depreciation. To performance-adjust discretionary accruals (Kothari et al. 2005), I match each firm-year observation with another firm-year from a matching industry and year with the closest *ROA*. To mitigate the statistical anomalies caused by low industry membership, I require a minimum of 20 observations per two-digit industry per year.

My third and final audit quality proxy is restatements. That is, the dependent variable in the restatement analysis (FUTURE_RESTATE) is equal to 1 if the year t financials are restated (regardless at which point in the future this may occur) and 0 otherwise following Cao et al. (2016). The SEC views restatements as ''the most visible indicator of improper accounting—and source of new investigations'' (Schroeder 2001). Restatements may suggest low audit effectiveness by the auditor who conducted the testwork (Kinney et al. 2004) and increase the likelihood of litigation against the auditor (Carcello and Palmrose 1994; Bonner et al. 1998; Palmrose and Scholz 2004).

Main regression model

For each of the non-timely filer sample partitions (see section 4 for samples used), I estimate (following Cao et al. 2016) the following pooled ordinary least squares (in the case of discretionary revenues or discretionary accruals as the dependent variable)/ probabilistic (in the case of subsequent restatements as the dependent variable) regression model using non-timely firm-years (NT_FILER=1) propensity matched timely (NT_FILER=0) firm-years (see Table 1 for variable definitions):

$$AQ = \lambda_0 + \lambda_1 NT\_FILER + \lambda_2 B4 + \lambda_3 NTB4 + \lambda_4 INFLUENCE + \lambda_5 SHORT\_TENURE + \lambda_6 OPSEG + \lambda_7 GEOSEG + \lambda_8 SIZE + \lambda_9 SALESGROWTH + \lambda_{10} STD\_SALES + \lambda_{11} CFO + \lambda_{12} STD\_CFO + \lambda_{13} ALTMAN + \lambda_{14} MB + \lambda_{15} MATWEAK + Year\_FE + Industry\_FE + error$$

Where *AQ* is either *ADR* (continuous; OLS) or *ADA* (continuous; OLS) or *FUTURE_RESTATE* (binary; probit); *NT_FILER* is equal to 1 if the firm files a Form12b-25 and 0 otherwise; *B4* is an indicator variable equal to 1 if the audit opinion is filed by a Big 4 auditor and 0 otherwise; *NTB4* is the interaction term between *NT_FILER* and *B4*. Following prior research (Ettredge

et al. 2006; Francis and Yu 2009; Reichelt and Wang 2010; Impink et al. 2012), I include control variables for client-level characteristics that likely affect financial reporting quality: client influence over the audit office (INFLUENCE), an indicator of short auditor tenure (SHORT_TENURE), business complexity (OPSEG and GEOSEG), firm growth measures (including sales growth and market-to-book ratio (SALESGROWTH and MB), an indicator of material weakness opinions (MATWEAK), firm size (SIZE), volatility of sales and operating cash flows (STD_SALES and STD_CFO), operating cash flows (CFO), and proxies for financial distress that include financial leverage, negative earnings, and Altman's (1983) bankruptcy score (LEVERAGE, LOSS, and ALTMAN). Much of the extant literature suggests that more influential clients or short auditor tenure are associated with lower audit quality. Moreover, audit quality is expected to be negatively related to rapid growth, poor performance, financial distress, sales and cash flows volatility. Firms with more complex operations (OPSEG and GEOSEG) tend to have more measurement problems yet less volatile operations (Doyle et al. 2007; Ashbaugh-Skaife et al. 2008; Francis and Yu 2009). I include industry and year fixed effects and estimate heteroscedasticity robust standard errors.

Examination of days until audit opinion is filed

To test my second research question, I estimate the following regression (See Table 1 for variable definitions):

$$AQ = \lambda_0 + \lambda_1 Grace\_1 + \lambda_2 Grace\_2 + \lambda_3 Grace\_3 + \lambda_4 Grace\_4 + \lambda_5 Grace\_5 + \lambda_6 Grace\_6 + \lambda_7 Grace\_7 + \lambda_8 Grace\_8 + \lambda_9 Grace\_9 + \lambda_{10} Grace\_10 + \lambda_{11} Grace\_11 + \lambda_{12} Grace\_12 + \lambda_{13} Grace\_13 + \lambda_{14} Grace\_14 + \lambda_{15} Grace\_15 + \lambda_{16} B4*Grace\_1 + \lambda_{17} B4*Grace\_2 + \lambda_{18} B4*Grace\_3 + \lambda_{19} B4*Grace\_4 + \lambda_{20} B4*Grace\_5 + \lambda_{21} B4*Grace\_6 + \lambda_{22} B4*Grace\_7 + \lambda_{23} B4*Grace\_8 + \lambda_{24} B4*Grace\_9 + \lambda_{25} B4*Grace\_10 + \lambda_{26} B4*Grace\_11 + \lambda_{27} B4*Grace\_12 + \lambda_{28} B4*Grace\_13 + \lambda_{29} B4*Grace\_14 + \lambda_{30} B4*Grace\_15 + \lambda_{31} B4 + \lambda_{32} SIZE + \lambda_{33} FINDIND + \lambda_{34} HIGHTECH + \lambda_{35} ROA + \lambda_{36} LEVERAGE + \lambda_{37} GOING\_CONCERN + \lambda_{38} EXT + \lambda_{39} OPSEG + \lambda_{40} GEOSEG + \lambda_{41} LOSS + \lambda_{42} RESTATE + \lambda_{43} MODOPIN + \lambda_{44} AUDCHG + \lambda_{45} AUD\_WLC + \lambda_{46} INFLUENCE + \lambda_{47} SHORT\_TENURE + \lambda_{48} SALESGROWTH + \lambda_{49} STD\_SALES + \lambda_{50} CFO + \lambda_{51} STD\_CFO + \lambda_{52} ALTMAN + \lambda_{53} MB + \lambda_{54} MATWEAK + Year\_FE + Industry\_FE + error$$

Where the Grace_ [Day=1,…, 15] variables are indicator variables for the day of the grace period on which the audit opinion is filed. That is, grace period days are calculated as the day on which the audit opinion is filed minus the day on which the form 12b-25 is filed and an indicator variable is then created for each grace period day (1 to 15). Companies with audit opinions filed beyond the 15 day grace period are contained within the intercept term to avoid perfect collinearity. All other variables are previously defined. To examine the effect of days until the audit opinion is filed (even after the company has filed late), I perform all three audit quality analyses using the restricted samples of each of my three NT_FILER subgroups: All NT filers (*NT_FILER* =1), consecutive NT filer (*Serial_NT*=1), and non-consecutive NT filers (*NT_FILER* =1 and *Serial_NT* =0). I include year (Year_FE) and industry (Industry_FE) fixed effects and estimate heteroscedasticity robust standard errors.

4. SAMPLE SELECTION AND DATA

Table 2 depicts the sample attrition for the NT filers (and matched timely filers) used in my samples. I identify all SEC Form 12b-25 notifications of late filings from Audit Analytics' Non-timely Filer Information and Analysis database for the period of 2004 to 2014. I begin my analysis in 2004 to capture only the post-SOX period as prior research suggests that NT filers

may be influenced by the transition into SOX compliance (Ettredge et al. 2006; Impink et al. 2012). Additionally, I require that the firm has necessary audit fee and opinion data from Audit Analytics and financial variable data from Compustat. As seen in Table 2, I further partition my sample into subgroups: all NT filers (*NT_FILER* =1), consecutive NT filers (*Serial_NT*=1), and non-consecutive NT filers (*NT_FILER* =1 and *Serial_NT* =0). These three samples are used to test both of my research questions.

TABLE 2: SAMPLE ATTRITION

NT 10-K filings for fiscal years 2004 through 2014	21,148
Less:	
Observations with missing audit opinion or audit fee data	(9,335)
Observations with missing Compustat variable data	(9,340)
Sample of all NT 10-K filers	2,473
Sample of consecutive NT 10-K filers	945
Sample of non-consecutive NT 10-K filers	1,528
Sample of all NT 10-K filers	2,473
Less observations without matches for PSM analyses	(373)
NT filers with matching timely filers	2,100
Sample of consecutive NT 10-K filers	945
Less observations without matches for PSM analyses	(212)
NT filers with matching timely filers	733
Sample of non-consecutive NT 10-K filers	1,528
Less observations without matches for PSM analyses	(189)
NT filers with matching timely filers	1,339

5. RESULTS

Descriptive Statistics

Table 3 presents descriptive statistics for timely filers, NT filers, consecutive NT filer (Serial_NT=1), and non-consecutive NT filers (NT_FILER=1 and Serial_NT=0). On average, timely filers are larger in size than NT filers and are more likely to have Big 4 auditors. NT filers also have are more likely to receive going concern (GOING_CONCERN) and material weakness (MATWEAK) opinions. NT filers are also over three times more likely to have an auditor change in year t (0.07 where NT=0, 0.25 where NT=1). Unsurprisingly, timely filers exhibit lower mean and standard deviation values for the ADR (0.03; 0.05), ADA (0.10; 0.11), and FUTURE_RESTATE (0.09; 0.28) variables. Amongst the non-timely filers, it would appear that consecutive NT filers drive high mean and standard deviation values for ADR (0.07; 0.10) and ADA (0.18; 0.18) while the non-consecutive partition drives the high values for FUTURE_RESTATE (0.18; 0.39). That is, in two out of the three proxies I examine, companies that file late multiple periods in a row appear to possess lower audit quality on average. NT filers are positively correlated with each of the three audit quality proxies used herein while Big 4 and Size are negatively correlated with ADR and ADA. Upon examining the distribution of the number of firm-year observations for each NTDAY (where NTDAYS = auditor opinion filing date – NT filing date), the NT filer sample is highly clustered around 14 days (408 firm-year observations) and 15 days (378 firm-year observations), which means that most firms with filing delays chose to utilize the entire grace period. The number of observations for firms that filed after the statutory 15 day grace period falls precipitously after day 17.

Table 3
Descriptive Statistics

Timely Filers i.e. NT_FILER=0				All Non-timely Filers i.e. NT_FILER=1				Consecutive Non-timely Filers i.e. NT_FILER=1 and Serial_NT=1				Non-consecutive Non-timely Filers i.e. NT_FILER=1 and Serial_NT=0			
Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev	Variable	N	Mean	Std Dev
ADR	22305	0.0321	0.0476	ADR	2100	0.056	0.0815	ADR	733	0.0671	0.0952	ADR	1339	0.0501	0.0727
ADA	22305	0.0975	0.1148	ADA	2100	0.1566	0.1613	ADA	733	0.1809	0.1752	ADA	1339	0.1438	0.152
FUTURE_RESTATE	22305	0.091	0.2876	FUTURE_RESTATE	2100	0.1649	0.3712	FUTURE_RESTATE	733	0.1229	0.3285	FUTURE_RESTATE	1339	0.1872	0.3902
B4	22305	0.6823	0.4656	B4	2100	0.3732	0.4838	B4	733	0.2301	0.4211	B4	1339	0.4489	0.4976
SIZE	22305	5.8146	2.2603	SIZE	2100	4.1327	2.1158	SIZE	733	3.6207	2.1248	SIZE	1339	4.4032	2.061
ALTMAN	22305	0.7637	8.2451	ALTMAN	2100	-2.3355	15.0701	ALTMAN	733	-4.1015	21.6184	ALTMAN	1339	-1.4025	9.8942
MB	22305	2.8933	51.2513	MB	2100	3.0799	40.102	MB	733	4.9541	66.55	MB	1339	2.0898	10.8228
MATWEAK	22305	0.0302	0.1712	MATWEAK	2100	0.2481	0.432	MATWEAK	733	0.1935	0.3953	MATWEAK	1339	0.2769	0.4476
LEVERAGE	22305	0.2183	0.3618	LEVERAGE	2100	0.3682	0.7923	LEVERAGE	733	0.4363	0.7262	LEVERAGE	1339	0.3322	0.8231
GOING_CONCERN	22305	0.0452	0.2078	GOING_CONCERN	2100	0.2675	0.4428	GOING_CONCERN	733	0.3699	0.4831	GOING_CONCERN	1339	0.2134	0.4098
FININD	22305	0.0139	0.1169	FININD	2100	0.0239	0.1529	FININD	733	0.0301	0.1709	FININD	1339	0.0207	0.1425
HIGHTECH	22305	0.1692	0.3749	HIGHTECH	2100	0.1609	0.3675	HIGHTECH	733	0.1255	0.3315	HIGHTECH	1339	0.1796	0.384
EXT	22305	0.0119	0.1086	EXT	2100	0.0199	0.1396	EXT	733	0.0131	0.1137	EXT	1339	0.0235	0.1515
OPSEG	22305	9.294	8.0296	OPSEG	2100	6.7732	5.8686	OPSEG	733	6.719	5.6032	OPSEG	1339	6.8018	6.0058
GEOSEG	22305	12.635	12.5359	GEOSEG	2100	8.3827	8.4451	GEOSEG	733	7.9294	8.163	GEOSEG	1339	8.6222	8.5836
LOSS	22305	0.3424	0.4745	LOSS	2100	0.6466	0.4781	LOSS	733	0.6954	0.4605	LOSS	1339	0.6209	0.4853
RESTATE	22305	0.1026	0.3034	RESTATE	2100	0.3669	0.4821	RESTATE	733	0.3529	0.4782	RESTATE	1339	0.3743	0.4841
MODOPIN	22305	0.2877	0.4527	MODOPIN	2100	0.2765	0.4474	MODOPIN	733	0.2157	0.4116	MODOPIN	1339	0.3087	0.4621
AUDCHG	22305	0.073	0.2601	AUDCHG	2100	0.254	0.4354	AUDCHG	733	0.2967	0.4571	AUDCHG	1339	0.2314	0.4218
ROA	22305	-0.0283	0.25	ROA	2100	-0.1906	0.3973	ROA	733	-0.2352	0.4555	ROA	1339	-0.167	0.3608
AUD_WLC	22305	0.6613	0.3412	AUD_WLC	2100	0.6377	0.3388	AUD_WLC	733	0.6446	0.3301	AUD_WLC	1339	0.634	0.3434
INFLUENCE	22305	0.0339	0.1214	INFLUENCE	2100	0.1082	0.2116	INFLUENCE	733	0.1516	0.2423	INFLUENCE	1339	0.0852	0.1895
SHORT_TENURE	22305	0.2638	0.4407	SHORT_TENURE	2100	0.512	0.5	SHORT_TENURE	733	0.5922	0.4918	SHORT_TENURE	1339	0.4696	0.4992
SALESGROWTH	22305	0.2589	5.2216	SALESGROWTH	2100	0.8525	15.0657	SALESGROWTH	733	0.9536	11.88	SALESGROWTH	1339	0.7991	16.506
STD_SALES	22305	257.464	1006.6065	STD_SALES	2100	68.7526	330.831	STD_SALES	733	47.8847	172.082	STD_SALES	1339	79.7774	389.006
CFO	22305	306.612	1209.5677	CFO	2100	28.598	172.732	CFO	733	15.8897	126.607	CFO	1339	35.3119	192.397
STD_CFO	22305	0.2626	23.1701	STD_CFO	2100	1.1124	17.6273	STD_CFO	733	2.0156	25.1845	STD_CFO	1339	0.6352	11.809

Regression results

Propensity-score matched samples

Table 4: Panel A presents the results from regressions of absolute discretionary revenues (ADR), absolute discretionary accruals (ADA), and future restatements (FUTURE_RESTATE) on the NT_FILER indicator variable and its interaction term with the Big 4 indicator variable (NTB4) for the sample including all NT filers (both consecutive and non-consecutive) propensity matched with timely filers. Non-Big 4 NT filers (NT_FILER) are significantly and positively related to both discretionary revenues (ADR) and subsequent restatement (FUTURE_RESTATE). Additionally, Big 4 auditors of timely filers are significantly and positively related to discretionary revenues and negatively related to subsequent restatement. The Big 4 and NT filer interaction terms (NTB4) are significantly and negatively related to absolute discretionary revenues and insignificant for absolute discretionary accruals and subsequent restatements.

Table 4: Multivariate Regression Results

Panel A (All non-timely filers propensity matched with timely filers)

EM PROXY	**ADR**			**ADA**			**FUTURE_RESTATE**		
VARIABLES	coef	se		coef	se		coef		pval
Constant	0.0806	0.0105	***	0.3610	0.0286	***	-2.4180	***	<0.01
nt_filer	0.0168	0.0040	***	0.0021	0.0073		0.2040	***	<0.01
b4	0.0105	0.0046	**	0.0123	0.0092		-0.1840	**	0.05
ntb4	-0.0205	0.0052	***	-0.0027	0.0104		-0.0205		0.85
Controls	YES			YES					
Industry Fixed Effects	YES			YES			YES		
Year Fixed Effects	YES			YES			YES		
R-squared/Pseudo R2	0.1190			0.1740			0.1339		
*** p<0.01, ** p<0.05, * p<0.1									

Table 4: Multivariate Regression Results

Panel B (Consecutive non-timely filers propensity matched with timely filers)

EM PROXY	**ADR**			**ADA**			**FUTURE_RESTATE**		
VARIABLES	coef	se		coef	se		coef		pval
Constant	0.1050	0.0232	***	0.3170	0.0354	***	-1.9380	***	<0.01
nt_filer	0.0192	0.0067	***	0.0477	0.0107	***	0.1780	*	0.09
b4	-0.0006	0.0077		0.0341	0.0149	**	0.0230		0.89
ntb4	-0.0169	0.0098	*	-0.0237	0.0203		-0.4680	**	0.03
Controls	YES			YES					
Industry Fixed Effects	YES			YES			YES		
Year Fixed Effects	YES			YES			YES		
R-squared/Pseudo R2	0.1840			0.2170			0.0914		
*** p<0.01, ** p<0.05, * p<0.1									

Table 4: Multivariate Regression Results

Panel C (Non-consecutive non-timely filers propensity matched with timely filers)

Panel C (Non-consecutive non-timely filers propensity matched with timely filers)								
AQ PROXY	**ADR**			**ADA**			**FUTURE_RESTATE**	
VARIABLES	coef			coef		coef		pval
Constant	0.0822		***	0.3930	***	-2.2130	***	<0.01
nt_filer	0.0021			0.0091		0.1820	**	0.04
b4	0.0051			0.0343	**	-0.0285		0.80
ntb4	-0.0026			-0.0196		-0.1200		0.35
Controls	YES			YES				
Industry Fixed Effects	YES			YES			YES	
Year Fixed Effects	YES			YES			YES	
R-squared/Pseudo R2	0.1540			0.2100		0.1395		
*** p<0.01, ** p<0.05, * p<0.1								

Table 4: Panel B presents the results from regressions of absolute discretionary revenues (ADR), absolute discretionary accruals (ADA), and subsequent restatements (FUTURE_RESTATE) on the NT_FILER indicator variable and its interaction term with the Big 4 indicator variable (NTB4) for the sample of consecutive NT filers (i.e. where NT_filer=1 and Serial_NT=1) propensity matched with timely filers. Non-Big 4 NT filers (NT_FILER) are significantly and positively related to absolute discretionary revenues (ADR), absolute discretionary accruals (ADA), and subsequent restatement (FUTURE_RESTATE). Matched

control observations of timely filers with Big 4 auditors (B4) are significantly and positively associated with ADA but insignificant for ADR and subsequent restatement. The interaction NTB4 is significant and negative for ADA and subsequent restatement. This latter result is reflective of the commonly documented "Big 4 effect" whereby Big 4 auditors are associated with higher audit quality. This effect appears to hold for the NTB4 interaction term.

Table 4: Panel C presents the results from regressions of absolute discretionary revenues (ADR), absolute discretionary accruals (ADA), and subsequent restatements (FUTURE_RESTATE) on the NT_FILER indicator variable and its interaction term with the Big 4 indicator variable (NTB4) for the sample of non-consecutive NT filers (i.e. where NT_filer=1 and Serial_NT=0) propensity matched with timely filers. NT_FILER is significantly and positively related to subsequent restatement. Timely filers with Big 4 auditors (B4) are significantly and positively related to absolute discretionary accruals. However, the remaining variables of interest (NT_FILER, B4, NTB4) are insignificant for the three proxies used.

Based on the above discussion of the regression results, it would appear there is some evidence of variation in audit quality for NT filers as compared to a match sample of timely filers. Moreover, it appears that the majority of the significant relationship between non-timely filers and low audit quality (i.e. higher ADR, ADA and more restatements) is driven by companies that file late multiple years in a row (i.e. consecutive NT filers).

Non-timely filer grace period samples

The following analyses are motivated by previous research that examines the effect of days of delay as examined by Impink et al. (2012), Bartov et al. (2013), and Cao et al. (2016). My examination differs from previous studies in that I look at the effect of individual grace period days until the audit opinion is filed on the three audit quality proxies.

Table 5: Panel A presents the results from regressions of absolute discretionary revenues (ADR), absolute discretionary accruals (ADA), and future restatements (FUTURE_RESTATE) on the grace period days indicator variables (Grace_X) and the interaction terms with the Big 4 indicator variable (B4_Grace_X) for the sample including all NT filers (both consecutive and non-consecutive). Companies with non-Big 4 auditors who file on days 8, 14, and 15 are significantly negatively related to discretionary revenues. Companies with Big 4 auditors that file on day 10 are significantly negatively related to discretionary revenues. Day 1 and day 9 filers are negatively related to discretionary accruals but only for those companies audited by non-Big 4 firms. Finally, subsequent restatements are significantly more likely for companies audited by Big 4 that file on day 2 and significantly less likely for companies audited by non-Big 4 that file on day 2. Additionally, day 7 for non-Big 4 audited firms is negatively associated with subsequent restatement.

Table 5: Multivariate Regression Results

Panel A (All non-timely filers grace period analysis)

AQ PROXY	**ADR**			**ADA**			**FUTURE_RESTATE**		
VARIABLES	coef		pval	coef		pval	coef		pval
Constant	0.1860	***	<0.01	0.3190	***	<0.01	-1.7410	***	<0.01
grace_1	0.0318		0.31	-0.0612	***	0.01	-0.1250		0.67
grace_2	-0.0090		0.80	0.0173		0.58	-4.0050	***	<0.01
grace_7	-0.0063		0.73	0.0206		0.63	0.4280	*	0.07
grace_8	-0.0269	*	0.05	-0.0196		0.58	-0.5300		0.30

grace_9	-0.0064		0.67	-0.0710	**	0.02	0.0081		0.98
grace_14	-0.0161	*	0.06	0.0028		0.84	0.0893		0.43
grace_15	-0.0200	**	0.03	-0.0105		0.44	-0.1930		0.13
b4_grace_1	-0.0237		0.48	0.0406		0.33	0.4060		0.41
b4_grace_2	0.0207		0.58	-0.0231		0.57	4.0570	***	<0.01
b4_grace_9	0.0123		0.55	0.0896	*	0.05	0.0831		0.88
b4_grace_10	-0.0743	*	0.08	-0.0579	*	0.10	0.4280		0.29
b4_grace_15	0.0143		0.19	0.0503	**	0.02	0.2400		0.24
Control Variables	YES			YES			YES		
Industry Fixed Effects	YES			YES			YES		
Year Fixed Effects	YES			YES			YES		
R-squared/Pseudo R2	0.1560			0.2420			0.1199		
*** p<0.01, ** p<0.05, * p<0.1									

Table 5: Multivariate Regression Results

Panel B (Consecutive non-timely filers grace period analysis)

AQ PROXY	**ADR**			**ADA**			**FUTURE_RESTATE**		
VARIABLES	coef		pval	coef		pval	coef		pval
Constant	0.2090	**	0.01	0.4320	***	<0.01	-1.6650	***	<0.01
grace_3	-0.0321		0.33	-0.0245		0.73	1.1680	***	<0.01
grace_4	0.0212		0.81	-0.0448		0.47	-0.1160		0.87
grace_5	0.0434		0.52	-0.0321		0.66	-4.2160	***	<0.01
grace_8	-0.0525	*	0.07	0.0347		0.65	-4.1990	***	<0.01
grace_9	0.0075		0.85	-0.0569		0.24	0.2480		0.70
grace_10	0.0658		0.25	0.0025		0.97	-0.7510	*	0.09
grace_14	-0.0227	*	0.09	-0.0069		0.76	0.0491		0.79
b4_grace_5	-0.0126		0.89	-0.0018		0.99	5.5230	***	<0.01
b4_grace_7	-0.1050	**	0.02	-0.1620		0.10	0.0963		0.91
b4_grace_8	0.0856	**	0.04	-0.1070		0.21	4.8440	***	<0.01
b4_grace_10	-0.1050		0.13	-0.0767		0.30	1.7530	**	0.01
b4_grace_14	0.0208		0.31	0.0073		0.89	0.6300		0.11
b4_grace_15	-0.0373	*	0.10	0.1120	*	0.06	0.3470		0.44
Control Variables	YES			YES			YES		
Industry Fixed Effects	YES			YES			YES		
Year Fixed Effects	YES			YES			YES		
R-squared/Pseudo R2	0.2290			0.2770			0.1500		
*** p<0.01, ** p<0.05, * p<0.1									

Table 5: Multivariate Regression Results

Panel C (Non-consecutive non-timely filers grace period analysis)

AQ PROXY	**ADR**			**ADA**			**FUTURE_RESTATE**		
VARIABLES	coef		pval	coef		pval	coef		pval
Constant	0.1360	***	<0.01	0.2290	***	<0.01	-2.2710	***	<0.01
grace_1	0.0016		0.96	-0.0044		0.91	0.2420		0.53
grace_2	-0.0659	***	<0.01	0.0113		0.65	-4.4620	***	<0.01
grace_6	0.0038		0.93	0.0041		0.93	0.1830		0.66
grace_7	-0.0333	*	0.06	0.0678		0.44	0.0601		0.87
grace_11	-0.0135		0.40	0.1090		0.12	0.6040		0.13
grace_12	-0.0328		0.19	0.1120	*	0.09	-4.4810	***	<0.01
grace_15	-0.0356	***	<0.01	0.0051		0.77	-0.3900	**	0.03
b4_grace_1	0.0017		0.96	-0.0006		0.99	0.0919		0.87
b4_grace_2	0.0604	***	0.01	-0.0135		0.71	4.7480	***	<0.01
b4_grace_4	-0.0171		0.54	0.0163		0.73	-0.1340		0.84
b4_grace_5	0.0642	**	0.02	0.0128		0.76	0.3970		0.61

b4_grace_10	-0.0713		0.21	-0.0868	**	0.04	0.0933		0.86
b4_grace_11	-0.0039		0.86	-0.1020		0.19	-0.4650		0.39
b4_grace_12	0.0299		0.28	-0.1060		0.14	5.0080	***	<0.01
b4_grace_15	0.0311	**	0.02	0.0187		0.42	0.3830		0.13
Control Variables	YES			YES			YES		
Industry Fixed Effects	YES			YES			YES		
Year Fixed Effects	YES			YES			YES		
R-squared/Pseudo R2	0.2080			0.2500			0.1487		
*** p<0.01, ** p<0.05, * p<0.1									

Table 5: Panel B presents the results from regressions of absolute discretionary revenues (ADR), absolute discretionary accruals (ADA), and future restatements (FUTURE_RESTATE) on the grace period days indicator variables (Grace_X) and the interaction terms with the Big 4 indicator variable (B4_Grace_X) for the sample of consecutive NT filers (i.e. where NT_filer=1 and Serial_NT=1). Day 8 and Day 14 are negatively associated with discretionary revenues for companies with non-Big 4 auditors. Day 7 and Day 15 are negatively related to discretionary revenues for companies with Big 4 auditors. Interestingly, Day 8 is significantly and positively related to discretionary revenues for Big 4 firms. Big 4 firms are also significantly and positively related to discretionary accruals for those that file the audit opinion on Day 15. The regression with FUTURE_RESTATE as the dependent variable has some omitted terms due to insufficient observations in the sample (i.e. I require each company to have at least two years of data for them to appear in the subsequent restatement regression). As such, the effect of grace period days (despite the statistical significance) is difficult to determine for the serial NT filers for this proxy.

Table 5: Panel C shows the results from regressions of discretionary revenues (ADR), discretionary accruals (ADA), and future restatements (FUTURE_RESTATE) on the grace period days indicator variables (Grace_X) and the interaction terms with the Big 4 indicator variable (B4_Grace_X) for the sample of non-consecutive NT filers (i.e. where NT_filer=1 and Serial_NT=0). Days 2, 7, and 15 are negatively associated with discretionary revenues for companies with non-Big 4 auditors. Interestingly, days 2, 5, and 15 are positively associated with discretionary revenues for companies with Big 4 auditors. Opinions of non-big4 auditors filed on day 12 are significantly and positively associated with discretionary accruals while opinions of Big 4 auditors filed on day 10 are significantly and negatively associated with discretionary accruals. Again, the regression with FUTURE_RESTATE as the dependent variable has some omitted terms due to insufficient observations in the sample (i.e. I require each company to have at least two years of data for them to appear in the subsequent restatement regression). As such, the effect of grace period days (despite the statistical significance) is difficult to determine for the non-serial NT filers for this proxy.

Based on the results discussed above, it appears there is some evidence of an effect of how many days are taken to complete the audit report. Even after controlling for common events and conditions (i.e. going concern, material weakness, auditor change, etc.) that may influence the quality of a late filing firm, certain grace period days appear significantly related to the respective audit quality proxy. However, the effect of the number of days utilized is not uniform across the proxies nor is it uniform across Big 4 or non-Big 4 auditors.

7. CONCLUSION

I examine the audit quality of late 10-K filings compared to timely filings and find that, overall, non-timely filers are associated with lower audit quality when compared to a propensity-matched sample of timely filers. Clients with Big 4 auditors largely mitigate the association of

non-timely filers with low quality, however, the "Big 4 effect" is not uniform across the sample partitions (i.e. all non-timely filers, consecutive non-timely filers, and non-consecutive non-timely filers). I also find evidence of an effect of incremental audit effort on the association between audit quality and non-timely filers. That is, the number of days utilized of the grace period has an impact on audit quality. Again, clients with Big 4 auditors tend to have higher quality when the auditors use more (rather than fewer) days of the grace period to file their respective audit opinions. Interestingly, across the non-timely filer sample partitions, there is no single day that is more associated with high quality for every proxy even after controlling for events that may influence a company's reporting delay. Overall, the results herein suggest that while non-timely filers encounter issues and events that are detrimental to audit quality, at least a certain degree of audit quality can be enhanced (or recaptured) with additional days used to perform audit procedures and resolve (or allay) client issues.

Future research could examine the audit quality of non-timely filers with more precision using audit hours (rather than days) to examine whether the additional time provided by the grace period translates into additional audit effort and higher quality. My findings are also subject to the validity of the audit quality metrics used and inferences herein are limited to those metrics alone. Future research could examine other quality metrics (such as instances of AAER's) and/or utilize proprietary datasets which contain variables not available in Compustat or Audit Analytics.

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