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EVALUATING THE EFFECT OF INDUSTRY SPECIALIST DURATION ON AUDIT QUALITY AND AUDIT FEES

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ABSTRACT

Using a sample of 11,322 observations during the period 2006 to 2010, we evaluate whether industry specialist duration (i.e., the amount of time an auditor has been considered an industry specialist) affects audit quality and audit fees. We find that auditors with longer specialist durations provide higher audit quality, compared to auditors with shorter durations. We also find that when auditors are neither long nor short duration specialists and receive positive abnormal audit fees, they trend to decrease audit quality. Lastly, we find that audit quality does not decrease when long and short duration specialists receive positive abnormal fees. Thus, our findings do not support the argument for mandatory auditor rotation.

Keywords: *audit fees, audit quality, auditor tenure, going concern, industry specialization.*

Data availability: *Data are available from public sources identified in the paper.*

JEL codes: *M41, M42*

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1. INTRODUCTION

This study examines whether auditor industry specialist duration (i.e., the amount of time an auditor has been considered an industry specialist) affects audit quality and audit fees. An important motivator of this study is a recent Public Company Accounting Oversight Board's (PCAOB) vote to issue a concept release announcing its interest in evaluating the potential limitations of long auditor-client relationships (PCAOB 2011). The document raised several questions about the benefits and disadvantages of mandatory auditor rotations. The implementation of a mandatory rotation system could negatively affect audit firms and their clients, because both would incur substantial switching costs. In addition, such system would limit auditors' ability to accumulate client- and industry-specific knowledge, potentially leading to reductions in audit quality.

Prior literature documents that specialist auditors provide higher audit quality, presumably due to their greater levels of industry-specific knowledge. We argue that mandatory auditor rotations threaten an audit firm's ability to maintain a dominant market share, increasing the costs associated with developing and maintaining industry-specific knowledge. The results from prior studies on the topic are not always consistent and fail to provide a clear indication of the ultimate effect of mandatory auditor rotations on audit quality. For instance, Ruiz-Barbadillo et al. (2009) provide support for mandatory audit rotation arguing that trade-offs exist between auditor reputation and client retention. On the other hand, Kaplan and Mauldin (2008) state that audit firm rotations do not strengthen auditor independence. Moreover, prior studies generally report that auditors who are considered industry specialists provide higher quality audits than non-industry specialists (Ashton 1991; Bonner and Lewis 1990; Krishnan 2003; Balsam et al.

2003; Dunn and Mayhew 2004; Reichelt and Wang 2010). Thus, requiring mandatory auditor rotations could negatively affect audit quality.

If industry specialization tenure allows auditors to further develop their industry-specific knowledge and status, auditors could be expected to charge a fee premium (Craswell, Francis and Taylor 1995; Ferguson, Francis and Stokes 2003; Francis, Reichelt and Wang 2010). On the other hand, through the accumulation of industry-specific knowledge, auditors can develop certain efficiencies and reduce the amount of efforts needed to perform an audit, resulting possible differential audit fees for their clients. Prior studies investigating the relation between auditor-client tenure and audit fees show evidence of a fee discount during the initial years of an engagement (Craswell and Francis 1999; Choi, Kim and Yang 2010). This discount has been shown to dissipate as the length of the auditor-client relation increases, while auditor independence remains uncompromised (Sankaraguruswamy and Whisenant 2009). Prior literature also suggests that auditors provide lower audit quality during the initial years of an engagement because they lack client-specific knowledge (Carcello and Nagy 2004; Geiger and Raghunandan 2002). However, audit quality can be preserved during the initial years of an engagement through the use of an industry specialist auditor (Stanley and DeZoort 2007).

Using a sample of 11,322 observations during the period 2006 to 2010, we examine the association between the duration of an auditor's industry specialist status and audit quality. We also examine whether industry specialist duration is a determinant of audit fees. We find that auditors with longer industry specialist durations provide better audit quality, compared to specialists with shorter durations. When we evaluate auditors who are not industry specialists, we find that when receiving positive abnormal fees they tend to decrease audit quality. On the other hand, this result is opposite for auditors who are deemed to be a long or short duration

specialists. Lastly, we find that audit quality does not decrease when long and short duration specialists receive positive abnormal fees. Thus, our findings do not support the argument for mandatory auditor rotation.

This study contributes to the current literature in several ways. To the best of our knowledge, this study represents one of the first attempts to research the long term effects of industry specialization on auditor performance and fees. We provide empirical support that auditors provide different levels of audit quality, depending on the duration of their industry specialist status. This study also provides new information on the determinants of an auditor's fee structure, and shows evidence that long-term industry specialists charge differential audit fees. From a practical implications perspective, we provide early evidence that mandatory auditor rotations, which the PCAOB is currently evaluating, may have a negative impact on audit quality because they limit an auditor's ability to maintain a long-term industry specialist position.

The remainder of this study is organized as follows. First, we provide a review of the literature concerning industry specialization and auditor tenure. Next, we explain the research methods. The results and their implications are then discussed. The last section presents our conclusions and the limitations of this study.

2. LITERATURE REVIEW

2.1. Industry Specialization and Auditor Tenure

Auditor specialization has been heavily examined in the accounting literature. The results generally show that auditors who are deemed industry specialists perform higher quality audits. For instance, Krishnan (2003) finds that audits performed by industry specialists are associated with lower discretionary accruals when compared to audits performed by non-specialist auditors.

Similarly, Balsam et al. (2003) show that companies audited by industry specialists have lower absolute discretionary accruals and higher earnings response coefficients. Dunn and Mayhew (2004) suggest that companies select industry specialist auditors to signal that they intend to provide quality financial statements. Gul et al. (2009) report that initial audit engagements where industry specialist auditors are present have higher earnings quality compared to initial engagements using non-specialist auditors. Overall, the results from these studies suggest that industry specialists provide higher audit quality through the reduction of earnings management possibilities or through the perception of higher audit quality, as evidenced by a positive market reaction.

A separate but closely related stream in the auditing literature examines the effect of auditor tenure on audit quality. Johnson et al. (2002) find that quality of earnings is lower among companies where the auditor-client relationship is shorter; in addition, they do not find evidence that longer auditor tenures reduce earnings quality. Jenkins and Velury (2008) find that shorter auditor-client tenures reduce auditor conservatism, while longer auditor tenures have the opposite effect. Myers et al. (2003) report that longer auditor tenures are associated with higher earnings quality. Overall, these studies suggest a positive association between the length of the auditor-client relation and audit quality. However, other studies suggest that longer auditor-client relations instead improve auditors' performance. Lee et al. (2009) find that the length of the audit report lag decreases with the length on an auditor's tenure, an effect that can be attributed to long-tenure auditors having a more in-depth knowledge about the operations of their clients.

In a study about the intersection between the two research streams highlighted in this section, Lim and Tan (2010) examine if auditor tenure and quality are conditional on the auditor being a specialist. They find that clients audited by long tenure and industry specialists have

higher earnings quality. In this study, we further investigate the intersection between these two literature streams by investigating relevant aspects of the association between auditor tenure and industry specialization. Specifically, we evaluate auditors' specialist status across time to capture audit quality effects related to the accumulation of industry-specific knowledge. We investigate the possibility that industry specialists do not provide equal audit quality by separating auditors into short and long duration specialists. Our research objective is to investigate the argument that auditors who have been deemed industry specialists for longer periods of time are able to obtain additional industry-specific knowledge and use such knowledge to improve their performance.

2.2. Audit Fees and Fee Premiums

As we discussed previously, prior studies suggest that industry specialist auditors provide higher audit quality compared to non-specialists (DeFond et al., 2002; Chung and Kallapur, 2003; Choi et al., 2010; and Sankaraguruswamy and Whisenant, 2009). Prior literature also suggests that industry specialists charge higher fees compared to non-industry specialists, especially when they enjoy a dominant market position (Crawell, 1995; Ferguson et al., 2003; Francis et al., 2005). However, to maintain the fee premium, there is concern that auditors who receive positive abnormal audit fees may be willing to compromise their independence. This implies that auditors who are industry specialists who provide higher quality are more likely to be concerned with their reputation. The longer the duration of being an audit specialist, the higher the cost of failing to maintain the reputation.

It is reasonable to expect that providers of superior product and services are able to charge a higher price and that low cost providers provide lower quality services. Based on standard economic theory, the same should apply to audit services, i.e. firms that provide

superior quality audit services should be able to charge a higher price. We argue that increased quality provided by specialist auditors result in differential audit fees, as the duration of an auditor specialist status increases. As an auditor accumulates industry specific knowledge, it is possible to reduce the amount of efforts required to while keeping the same high quality. This allows for the possibility of quasi-rents of differential audit fees. We therefore predict that industry specialist auditor duration results in an audit fee adjustment. After controlling for industry specialist duration in the audit fee model, we are also interested in evaluating if industry specialist auditors are willing to reduce audit quality when the opportunity to earn an abnormal audit fee arises. We argue that an auditor who is an industry specialist with accumulated knowledge and specialist duration will exhibit the opposite behavior. In this study, we predict that auditors who are industry specialist and who have accumulated knowledge and/or specialist duration will not decrease audit quality when receiving positive abnormal audit fees.

3. METHOD

3.1. Industry Specialist Definitions

Our measure of industry specialization duration is based on the annual market shares of audit firms at the national and city-specific levels. Following the lead of prior studies (Balsam et al., 2003; Krishnan, 2003; Dunn and Mayhew, 2004; Francis et al., 2005), we estimate an audit firm's market share by observing the audit fees it generates at the national and local level during a year. Industries are defined using the first two-digits of a company's primary SIC category. Cities are defined using the Metropolitan Statistical Area (MSA) of the U.S. Census Bureau (Reichelt and Wang 2010; Francis et al. 2005), and we use data from Audit Analytics data to identify the location of each individual auditor office.

This study applies two definitions of auditor industry specialization for the national and city categories. Following Mayhew and Wilkins (2003) and Reichelt and Wang (2010), we define auditor industry specialization based on market dominance. Dominant auditors are able to distinguish themselves from their competitors by devoting additional resources to develop their industry specific knowledge. Thus, our first definition of industry specialization states that an audit firm is deemed an industry specialist when it has the largest market share within a two-digit SIC group and has a market share of at least 10 percent greater than the market share of the next auditor in a given two-digit SIC group.[1] This definition is operationalized at the national and city-specific level. Auditor industry specialization is also defined as auditors who acquire substantial market share in an industry. Consistent with Reichelt and Wang (2010), our second definition of industry specialization states that an audit firm is deemed an industry specialist if it acquires more than 50 percent market share at the city-level or more than 30 percent at the national level in any two-digit SIC category for a given year.

To test how the auditor industry specialist duration affects audit quality and fees, the duration variable is calculated similar to Johnson et al. (2002), who classify auditor-client tenure as short, medium length, and long using indicator variables. In this study, an auditor who dominates an industry market for one to three years is classified as short duration (*ShrtSpecDuration*), while an auditor who dominates the an industry market for four or more years is classified as long duration (*LongSpecDuration*).

3.2. Discretionary Accruals

[1] The use of a 10 percent threshold is consistent with Mayhew and Wilkins (2003).

We use discretionary accruals as a proxy for earnings management and audit quality, in line with prior literature. Higher discretionary accruals imply lower audit quality. Our study employs the performance-adjusted Jones model from Kothari et al. (2005) to control for financial performance, which decreases the possibility of misspecification errors. The discretionary accruals model is defined as follows:

$$TA = \propto + \beta_1 \Delta REV + \beta_2 PPE + \beta_3 NI_{t\text{-}1} + \varepsilon \quad (1)$$

We use OLS to estimate regression parameters with *TA* being total accruals (defined as the difference between income before extraordinary from operations, minus operating cash flows); ΔREV is change in revenues; PPE is the gross property, plant and equipment; and *NI* is income before extraordinary items.[2] Cross-sections as formed using the first two-digits of the primary SIC code of companies in the sample and all variables are deflated by lagged total assets. Residuals from an OLS estimation of equation (1) are denoted as the discretionary component of total accruals.[3] The main regression model is as follows:

$$|DA| = \beta_0 + \beta_1 LongSpecDuration + \beta_2 ShrtSpecDuration + \beta_3 SIZE + \beta_4 MB + \beta_5 CFO + \beta_6 \sigma(CFO) + \beta_7 LEV + \beta_8 LOSS + \beta_9 LIT + \beta_9 |TA\ 1| + \beta_{10} ALTMAN + \beta_{11} SHORT\ TENURE + \beta_{12} BIG4 + \beta_{13} SEC\ TIER + \varepsilon \quad (2)$$[4]

<Insert Table 1 Panel A>

where the dependent variable is |*DA*|, which is the natural log of the residual of the total accrual model.[5] The control variables are defined in Table 1, Panel A. The variable *SIZE* is included to control for firm size because the prior literature suggest that large companies are more financially stable (Dechow and Dichev 2002). Prior literature also suggests that a client's growth

[3] Model (1) requires at least 20 observations for each two-digit SIC industry and year for valid testing (Reichelt and Wang 2010).
[4] Industry and year dummy variables are not included because they are controlled for in the discretionary accrual model.

opportunities influence earnings management, hence the inclusion of the variables *MB* (market-book value) and *CHGSALE* (change in revenue). The profitability of a company also has an effect on earnings management; thus, *LOSS* and *CFO* are included to control for financial performance (Kothari et al. 2005). Clients that have high leverage are subjected to earnings management due to the concerns of violating debt covenants; thus, *LEV* is included (Becker et al., 1998; DeFond and Jiambalvo 1994). Clients engaged in financial transactions have been shown to manipulate earnings; therefore, we include *ISSUE* in the model (Ashbaugh et al., 2003; Kim et al., 2003). The variable |*TA 1*| controls for the reversal of accruals over time (Choi et al., 2010). Firms with higher non-accrual earnings volatility will have higher discretionary accruals; thus, $\sigma(CFO)$ is included. Firms with higher litigation risk are associated with higher abnormal accruals, thus *LIT* is included to control for litigation risk. The variables *BIG4* and *SEC TIER* are included to control for auditor quality. As previously defined, industry specialist tenure variables, *LongSpecDuration* and *ShrtSpecDuration,* are included in the model to evaluate if the duration aspect of the auditor being the industry specialist affects audit quality.

3.3. Audit fee and audit quality with abnormal audit fee evaluation

Industry specialists have been shown to charge a fee premium for higher audit quality. However, the literature has yet to document if an auditor who has been an industry specialist for a period of time reduces or increases the audit fee. If an auditor has been an industry specialist for a length of time, would it result in a less complicated audit engagement and a lower audit fee premium? If the industry specialist auditor puts less time and effort into the audit due to the accumulation of knowledge over the time, the audit fee should be less. On the other hand, if an auditor charges for audit quality then the auditor would charge a premium. To test our assertion,

we developed the following audit fee model based on prior literature. Our model evaluates the effect of auditor industry specialist tenure as is stated as:

$$LN(AFEE)_{jt} = \beta_0 + \beta_1 LongSpecDuration + \beta_2 ShrtSpecDuration + \beta_3 EMPLOY + \beta_4 INVEC + \beta_5 FOREIGN + \beta_6 EXORD + \beta_7 REPORT\ LAG + \beta_8 LOSS + \beta_9 LOSSLAG + \beta_{10} LEV + \beta_{11} LIQUID + \beta_{12} ROA + \beta_{13} MB + \beta_{14} CHGSALE + \beta_{15} PENSION + \beta_{16} BIG4 + \beta_{17} SEC\ TIER + \beta_{18} SHORT\ TENURE + \beta_{19} LNAT + \beta_{20} ISSUE + \beta_{21} industry + \beta_{22} year\ dummies + \varepsilon \quad (4)$$

<Insert Table 1 Panel B>

where $LN(AFEE)_{jt}$ is the national log of the variable audit fee. The control variables are defined in Table 1, Panel B. Past literature suggests that client size is directly associated with audit fees because larger clients are more complex. We therefore include the variables *EMPLOY*, and *LNAT*, all of which are expected to have a positive sign. In addition, as client financials become more complex, a higher audit fee may be charged. The variables *INVREC*, *FOREIGN*, and *EXORD* are included to control for financial complexity of the engagement. The variable *PENSION* is included to capture the complexity of the firm pension plan (Whisenant et al. 2003). Client risk is also associated with audit fee; if the client is presumed to be more risky a higher audit fee is charged (Simunic and Stein 1996). To control for client specific risk, the variables *LOSS*, *LOSSLAG*, *LEV*, *LIQUID*, and *ROA* are included in the model. A positive sign is expected for *LOSS*, *LOSSLAG*, and *LEV* and a negative sign for *ROA*, and *LIQUID*. *SHORT TENURE* is included to control for fee discounting in the initial engagement (Sankaraguruswamy and Whisenant 2009). *REPORT LAG* is included to provide insight into the complexity of the audit from the auditor's standpoint. *BIG4* and *SEC TIER* are included to control for auditor fee premium charged by audit firms. The industry and year dummy variables are included to control for economic condition and industry specific fees.

Extending the audit fee argument towards industry specialist auditors who receive positive abnormal audit fees, we use a method similar to Choi et al. (2010). Evaluating abnormal audit fees, they found that positive abnormal audit fees have a negative association with audit quality. In this study, we examine if long or short tenure industry specialists reduce audit quality when receiving positive abnormal audit fees. Using the previous abnormal accrual models (equation 3), the variable auditor industry tenure is interacted with positive abnormal audit fees obtained from the audit fee model (equation 5). We predict that auditors with tenure conditional on being an industry specialist will not reduce audit quality compared to those auditors who are not industry specialists. This could be a result of the auditors wanting to maintain their reputation by providing a higher audit quality. The model is presented as follows:

$$|DA| = \beta_0 + \beta_1 LongSpecDuration + \beta_2 ShrtSpecDuration + \beta_3 ABauditFee * PosFee * LongSpecDuration + \beta_4 AbAuditFee * PosFee * ShrtSpecDuration + \beta_5 SIZE + \beta_6 MB + \beta_7 CFO + \beta_8 \sigma(CFO) + \beta_9 LEV + \beta_{10} LOSS + \beta_{11} LIT + \beta_{12} |TA\ 1| + \beta_{13} ALTMAN + \beta_{14} SHORT\ TENURE + \beta_{15} BIG4 + \beta_{16} SEC\ TIER + \beta_{17} ABAuditFee + \beta_{18} PosFee + \beta_{19} AbAuditFee * PosFee + \varepsilon \quad (5)$$

where the model is defined as in equation 4 except that we include *AbAuditFee*PosFee*, *AbAuditFee*PosFee*LongSpecDuration*, and *AbAuditFee*PosFee*ShrtSpecDuration* to examine if tenure industry specialist auditors reduce audit quality when receiving positive abnormal audit fees.

3.4. Sample

We use a sample of publicly-traded domestic companies from Compustat and Audit Analytics. The sample is for calendar years 2006 to 2010. We eliminate companies with missing information in Compustat or Audit Analytics to estimate our regression model variables (n = 11,322). Similar to Whisenant et al (2003), we omit financial, insurance, and utility companies

due to significant differences in their operations and financial reporting methods (n = 18,230). Lastly, we remove observations from industries with two or fewer observations in any given city and year (n = 5,760). We perform this step to reduce the bias in the analysis that determines the specialist in a specific city (Reichelt and Wang 2010; Francis et al., 2005). The final sample consists of 11,322 company-year observations.

<Insert Table 2>

4. RESULTS

4.1. Univariate Results

In Table 3, we report the descriptive statistics for industry specialists with respect to auditor industry tenure. The means of the national long tenure specialist (definitions 1 and 2) equals .049 and .084, respectively. Both definitions have similar means with respect to national short tenure (.046 versus .060). Evaluating the results of the descriptive statistics for city specialist, we note that the mean for definition 2 is smaller than definition 1 with respect to the long tenure specialist variable (.193 versus .171). The results for short tenure city specialist (definitions 1 and 2) are .116 and .102, respectively. Evaluating the interaction effects between national and city industry specialist, we find that when an auditor is a joint national and city specialist the means are similar for both definitions. Short tenure (both definitions 1 and 2) for short tenure have means of .032 and .036 respectively. The results for definitions 1 and 2 for national only have a mean for long tenure of .006 and .018 while short tenure means are .021 and .037, respectively. Lastly, the city only specialist variable for long tenure has a mean of .114 and .089 for definitions 1 and 2, respectively. The short tenure variable for city only has means of .121 (definition 1) and .094 (definitions 2).

<Insert Table 3>

Table 4, Panel A, present descriptive statistics for the variables that are included in equation (2). The results of the descriptive statistics are similar to those that are provided in prior literature (e.g. Reichelt and Wang 2010, and Choi, Kim and Zang 2010) except that the variables *MB, |TA_1|,* and *ALTMAN,* are noticeably different. We attribute our results to the different economic environment. More specifically, firms are experiencing less growth and higher chance of bankruptcies because of the down turn economy, leading to smaller *MB,* and *ALTMAN*.

<Insert Table 4>

Table 4, Panel B presents descriptive statistic for variables that are included in equation (7) and (8). The descriptive statistics are similar to the past literature (e.g. Choi, Kim and Zang 2010) except for *PENSION* and *LIQUID*, which are larger. These differences could be attributed to differences in the economic environment across time. Following the recession of 2007, firms may have intentionally increased their liquidity positions to limit risk associated with obtaining short- and long-term financing during the so called credit crunch.

<Insert Table 5>

4.2. Multivariate results - Discretionary accruals

The results from equation (2) are presented in Table 6 where we evaluate how industry specialist duration affects audit quality. This is an important area to study since the PCAOB is currently evaluating if mandatory auditor rotation is needed to increase audit quality. In this line of reasoning, we evaluate if industry specialist auditors provide higher audit quality based on how long they have been an industry specialist (duration). If auditors with longer specialist durations provide lower audit quality, it would support PCAOB's concern about audit quality. On the other hand, if industry specialists with longer duration provide higher audit quality, it

would argue against mandatory audit rotation. The results for industry specialist duration are reported in Table 6 where all models show a high statistically significance (p-values .0001) and an average adjusted R^2 of .44. All statistically significant control variables have the correct predicted sign except for *LEV*.

In Table 6, the first column shows the variable names and the second column provides the expected sign of each variables. The next two columns provide the coefficient and p-values for model 1, which evaluate the national industry specialist duration variables. We show the variables of interest in the bottom part of the table. The next two columns provide the results for model 2, which evaluates the city industry specialist duration. The last two columns evaluate the effect for the joint national and city, national only, and city only industry specialist duration variables (model 3). Our primary focus is the result for model 3. The results from model 1 suggest that as the duration of the industry specialist auditor increase, audit quality tends to increase. Evaluating industry specialist definition 1 suggests that long industry specialist duration is negatively statistically significant at the .001 level with a coefficient of -.029. The short duration industry specialist is statistically insignificant. In testing the difference between the coefficients of short and long industry specialist duration, we note that long duration industry specialist provides a higher audit quality (F-value = 19.48, p-value = .0001). The industry specialist definition 2 provides results that not only support that long duration specialists positively impact audit quality, but also that short duration specialist increases audit quality. The overall results is consistent with definition 1 that long duration industry specialists provide a higher audit quality compared to the short duration specialists (F-value = 3.58, p-value = .065). These results suggest that long industry duration provides a higher audit quality. The results for model 2, the city level industry specialist, imply that both definitions for long duration specialist

is statistically significant at a .10 level, while short duration specialist is statistically insignificant.

<Insert Table 6>

Our primary focus is model 3 where we examine the joint national and city framework. The results show that long industry specialist duration is statistically significant for the national and city specialist for both definitions with coefficients of -.030 and -.019, respectively. The variable short duration specialist is statistically significant for both industry specialist definitions. Testing if auditor with different lengths of industry specialist duration results in different audit quality, we further test the coefficients of the long and short joint national and city specialist duration. The results suggest that long industry specialist duration provides higher audit quality compared to short industry specialist duration both definitions (F-value =10.36, p-value <. 0024; F-value =3.08, p-value= .0862, respectively). The overall results imply that as duration increases, the more dominant the auditor dominating the industry, the higher the audit quality. Furthermore, the results imply that different lengths of the auditor domination result in different audit quality with long duration providing a high audit quality.

An evaluation of the national only specialist variable shows that long duration specialist is statistically significant at a .01 level for definition 1 and 2 (coefficients: -.026 and -.0258, respectively). We also find that short duration specialist is statistically significant for both definitions at a .05 percent level. Controlling for duration of being an industry specialist, testing whether national only industry specialist provides different audit quality show that long duration industry specialist provide a higher quality audit than a short duration industry specialist. The results hold for definitions 1 (F-value= 4.55, p-value = .0387). Evaluating city only specialists, we find that long duration specialists are only statistically significant for definition 1 with a

coefficient of - .05 and a p-value of .065. Short duration specialists are statistically insignificant for both definitions. The overall results show that industry specialist auditors provide higher audit quality and that auditors with long specialist duration provide higher audit quality compared to short duration auditor industry specialists.

The overall results imply that knowledge at the national industry specialist level drives the results for long and short duration industry specialists. All models show this result with national-city and national only specialist providing higher audit quality over the city and city only specialists. In model three, all long duration specialists are statistically significant; however, national-city and national only long duration specialists provide substantially higher audit quality than city long duration specialists. For short duration industry specialists, the results suggest that when an auditor is the national only specialist, it has a statistically significant impact on audit quality. This may interpreted as suggesting that an auditor having no influence from being the city specialist is able to pull knowledge from the national offices, which results in higher audit quality. The results imply that it is important to have a network of industry knowledge that can be past to offices resulting in higher audit quality when the auditor has only been a short duration industry specialist. The results further suggest as the duration of the auditor increases, knowledge is captured and stored allowing auditors with long duration to have a vast pull of industry specific knowledge. Thus, it is more important for an auditor to be both the national-city specialist when long duration is being evaluated.

Prior research has used accruals as a measure of earnings quality and to further investigate auditor specialist duration and its impact on audit quality, we also analyze income decreasing or increasing discretionary accruals. The results for income decreasing discretionary accruals (Table 7) support the overall conclusion with long duration being statistically significant

for model 1 while short tenure is statistically insignificant for both definitions. Evaluating the coefficients of long and short duration for income deceasing discretionary accruals, the results suggest that there is a difference in audit quality with respect to the length of auditor duration for definition 1 and 2, with short duration being statistically insignificant. The city level (model 2) results differ from the overall sample results with both long and short duration specialist being statistically insignificant. In model 3 with the joint national and city specialist, the results are similar to the overall sample results, with only long duration specialist is statistically significant for both definitions. Evaluating the coefficients for long duration national and city specialist show that there is statistical difference between the audit quality being provided with short duration being statistically insignificant. National only long duration is only significant for definition 2, while short duration is statistically insignificant for both definitions. This differs from the overall sample results with short duration having no impact on audit quality. The city only long and short duration specialist is statistically insignificant for both definitions, which also differs from the overall sample results with long duration specialist having no impact on audit quality. Evaluating income increasing discretionary accruals in Table 8, we find similar results as income decreasing discretionary accruals for models 1. No duration variable is statistically significant for city level specialist. Evaluating the coefficients for national long and short duration specialist suggests that long duration provides a statistically significant higher audit quality for definition 1 (F-value=10.55, p-value= .0022;). This result provides some support that national long duration auditor specialists are able to reduce upwards earnings management compared to short duration specialists. The results are similar for model 3 with the overall discretionary accrual model. The joint national and city long duration is statistically significant for both definitions, while short duration is statistically insignificant. The national

only long and short durations are statistically significant for both definitions with some evidence of long duration providing a higher audit quality (definition 1, F-value=7.67, p-value= .008; definition 2, F-value= .32, p-value= .57). The city only results are different to the overall accrual model with results for both long and short duration being insignificant. The results imply that joint national-city industry long duration specialists provide similar audit quality with respect upwards and downwards earnings management. On the other hand, we find that when an auditor is a nationally only specialist, it has a statistically significant impact on audit quality by reducing earnings management. In addition, the results show that long duration specialists have a statistically significant impact on improving audit quality compared to short duration specialists. The overall discretionary accrual results supports the argument that long duration specialist provide higher audit quality.

<Insert Table 7 and 8>

The overall results from the accrual models provide support that the duration of being an industry specialist auditor affects audit quality. We show that auditors with long specialist durations provide higher audit quality compared to those with short specialist durations. To provide higher audit quality, we further find that it is important for auditors to be the national specialist compared to the city specialist. On the other hand, for short duration specialists it is important to be a national only specialist. Lastly, we find that the main driver of the difference in audit quality between long and short duration is the ability of the long-term specialist to reduce the effects of positive earnings management.

4.2. Multivariate results - Audit fee and abnormal positive audit quality

We further examine how audit industry specialist duration affects audit fees. Table 9 presents the results and it shows that all models are statistically significant at a .0001 level (R^2 of .85). All statistically significant variables have the correct predicted sign, except for *LEV*. The variables *MB*, *Short Tenure, ISSUE*, and *REPORT LAG* are statistically insignificant. Evaluating model 1 for national specialist, long duration specialist is statistically significant (-) at a .01 level for definition 1 and significant at .10 level for definition 2. A short duration specialist is statistically significant for definition 1 (.01) and insignificant for definition 2. The results provide support that national long and short duration specialists provide a fee discount. Model 2, which evaluates city specialist, shows some support of conflicting results, implying that city long duration specialists charge a fee premium with positive statistically significant coefficients for definition 1. Short duration specialist is statistically insignificant for both definitions at the city level. While the results are mixed with respect to the direction of the fee charged by industry specialist, they do support the position that auditor specialist duration affects the audit fee structure.

<*Insert Table 9*>

Evaluating model 3, it shows that the joint national and city long duration specialist is negatively significant for both definitions, while the short duration specialist variable significant for both definitions. This result implies that auditors with long industry specialist duration for both the city and national level charge a fee discount. However, short duration city and national specialist fail to provide a fee discount. Further evaluating the national only long and short duration specialist, we find that they also have a negative significant coefficient for definition 1 suggesting some support that national only specialist auditors provide a fee discount. Lastly,

evaluating city only specialists suggests that long and short industry specialist duration is positively significant for definition 1.

The overall results of the audit fee model show that the length of auditor duration has an effect on audit fees. We find that national level industry specialist contributes to a fee discount while city level contributes to a fee premium. When an auditor is the joint national and city specialist, a fee discount is charged by the long duration specialists while a short duration national and city auditor charge a neither a fee premium or discount. This suggests that long duration specialists rely more on the national office while short duration specialists rely on the city office or are unable to incorporate the fees from the national office. We attribute these results to the effort the auditor must incorporate into an audit. As the time increases of being an industry specialist, the more knowledge is stored at the national level resulting in a more efficient audit and, therefore, a fee discount. On the other hand, if the auditor has only been an industry specialist for a short time, there is a reliance on the city level accumulation of knowledge, which results in a less efficient audit and, therefore, a higher fee when compared to the long duration specialist. This is further shown when the auditor is the national only specialist, i.e. that long and short specialist charges a fee discount resulting from developing knowledge that can be accessed at the national level. The city only specialist charges a fee premium even if the auditor is a long or short duration specialists. This can be attributed to the auditor spending more time on the audit since a city only auditor does not necessarily have a national specialist to approach when an issue is raised that may complicate the audit. Thus, a city specialist auditor will have to spend more time on the audit engagement to provide a high quality audit. The national only and the joint national and city auditors do have this opportunity making it less costly to resolve a complicating issue.

We further examine whether long and short duration industry specialists who receive positive abnormal audit fees decrease their audit quality. Table 10 provides the results of our analysis. All models are statistically significant at a .0001 level with an average R^2 of .43. All statistically significant control variables have the correct predicted sign, except for *LEV*. The variables *LIT, AbAuditFee, PosFee, SIZE*, and *LIT* are statistically insignificant. Model 1 results support the early results of this paper, i.e. that auditors with long duration auditor specialist provide high quality audits with both definitions being statistically significant. The results also show that auditors with long duration do not decrease the audit quality when receiving positive abnormal audit fees. Model 2 also show that long and short duration variables are statistically insignificant. The results further show that audit quality is not reduced when receiving positive abnormal audit fees.

<Insert Table 10>

Evaluating the joint national and city framework, we find that when an auditor is jointly the long duration national and city specialist, a higher quality of audits is provided. This result is significant for both definitions of industry specialist's long duration. We also find that when the joint national and city specialist receive positive abnormal audit fees they do not decrease audit quality. This is shown through the insignificant interaction variable *AbAuditFee*Posfee*LongSpecDuration*. Evaluating national only specialist only, the results suggest that the long duration specialist variable is negatively significant for definition 1. The interaction variables of *AbAuditFee*PosFee*LongSpecDuration* and *AbAuditFee*PosFee*ShrtSpecDuration* are insignificant for definition 1 implying that auditors do not decrease audit quality when receiving positive abnormal fees. We do find that for definition 2 that the variable *AbAuditFee*PosFee*LongSpecDuration* is negatively significant,

suggesting that when auditors are only national specialist and receive positive abnormal audit fee audit quality tends to increase. The city only specialist results are insignificant for the long and short duration variables. We also find that when long duration city only specialists receive positive abnormal audit fees, they provide higher audit quality. This is shown with the statistically negative coefficient of *AbAuditFee*PosFee*LongSpecDuration* for definition 1. When evaluating *AbAuditFee*PosFee*, it is statistically positive for all models, implying that when an audit firm is not a long or short duration specialist, there is a tendency to decrease the audit quality when receiving positive abnormal audit fees.

The overall results imply that as the timeframe of being an auditor specialist increases, audit quality increases. We also find that long and short duration specialists do not decrease audit quality when receiving positive abnormal audit fees. At the city only level, long duration specialists also provide higher audit quality when receiving positive abnormal audit fees. Lastly, we find that auditors who are not long or short duration specialist tend to decrease audit quality when receiving positive abnormal audit fees.

4.6 Robustness:

We also conduct robustness tests because our previous tests did not take into account if an auditor has been an industry specialist in the past. To take into account past auditor specialist status, we re-estimate equation (2) with only the industry specialist sample. The results are reported in table 11 where the intercept captures past industry specialist auditor audit quality. The results support our previous findings at the national level that long duration specialists provide higher audit quality not only compared to short duration specialist but also compared to past industry specialists (for definition 1, F-value=15.61, p-value= .0004). We further find that

short duration is also negatively significant and provides a higher audit quality compared to past industry specialist for definition 1 (F-value=32.55, p-value= .0000).[6] Examining the city level specialists, we find that both long and short duration specialist are statistically insignificant. Lastly, the results from model 3, the joint national and city specialist, support the previous results. The results suggest that the long duration national and city specialist provides a higher audit quality than short duration and that being a past industry specialist matter for both definitions. This result is also true for the national only level for definition 1, but definition 2 suggests that long and short duration specialists provide similar audit quality. However, this audit quality is still higher than past industry specialist audits. Lastly, the city only level results suggest that there is no difference in audit quality between long and short duration, but past industry specialist provides a lower audit quality.

<Insert Table 11>

The industry specialist sample further confirms the results from our earlier analysis that auditors with different specialist tenure provide different audit quality. We find that auditors who have been past industry specialists provide lower audit quality compared to current industry specialist auditors.

5. CONCLUSIONS

This study provides empirical support that industry specialist past experience have an important impact on current audit quality. We show that not all industry specialists produce audits of equal quality and find that auditors with longer duration as industry specialists provide better audit quality compared to short tenure specialists. We also find that auditors who are joint

[6] Definitions 2 results are statistically insignificant; therefore these results only provide marginal support.

national and city specialists with long duration discount fees while city only specialists charge a fee premium. We argue that this is due to charging for hours of service and not for audit quality. If the joint national and city specialist auditors deal with complexity, they can efficiently resolve the issue by utilizing other offices' expertise while the city only specialist does not have this option. Lastly, this study provides empirical support that industry specialists with long or short duration do not decrease audit quality when they are able to obtain positive abnormal audit fees. With respect to the Public Company Accounting Oversight Board (PCAOB) decision to explore audit rotation, we empirically show that mandating auditor rotation could have a negative impact on audit quality. If auditors are unable to accumulate knowledge in a specific industry, it could result in higher audit fees and lower quality.

Our study provides insight into how knowledge of industry specialists, specialist duration and fees affect audit quality. Using the proxies developed in this paper, future studies can evaluate issues related auditor specialist and earnings quality. Our study can also be applied to an international setting to evaluate audit quality when auditing IFRS based financial statements. This is important since the European Union is discussing mandatory auditor rotation.

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Variable List	**Table 2 panel A (Accrual Models)**
Dependent Variables	Description
DA	Signed discretionary accruals measured using modified Jones model and adjusted for firm performance (Kothari et al., 2005)
|DA|	Absolute discretionary accruals measured using modified Jones model and adjusted for firm performance (Kothari et al., 2005)
SIZE	The natural log of market share at the end of the fiscal year (CSHO*PRCL_F)
MB	The market value of equity divided by book value of equity (CSHO*PRCL_F)/(total assets (AT)-total liabilities (LT))
CFO	The cash flow from operations (data308) divided by lagged total assets
σ (CFO)	Standard deviation of operating cash flows years t-4 to t. (deflated by lagged total assets)
LEV	Total long-term debt (DLTT) scaled by total assets
LOSS	If net income < 0 then 1, 0 otherwise
LIT	1 if the firm operates in a high ligation industry, otherwise 0. (SIC codes 2833- 2836, 3570-3577, 3600-3674, 5200-5961, and 7370-7370)
|TA_1|	The lagged value of cash flow (OANCF-XIDOC) from company I for year t scaled by total assets t-1 (AT).
ALTMAN	Altman's (1969) score
SHORT TENURE	1 if the audit client relations is ≤ 2, 0 otherwise
BIG4	1 if the firm is audited by a Big 4 auditor, 0 otherwise
SEC TIER	1 if the auditor is Grant Thornton or BDO Seidman, 0 otherwise
e	Error term
Variables of interest	
Industry Specialist	If the auditor is the industry specialist then 1; else 0: Two definitions of industry specialist: 1,largest market share and is at least 10% greater then the next auditor, Two, the national (city) industry specialist is greater then 30% (50%) of the market share.
LongSpecDuration	The auditor is currently the industry specialist and has been the specialist for the last 3 or more years (4 or more years).
ShrtSpecDuration	The auditor is currently the industry specialist and has been the specialist only the last 2 or less years (1-3 years).
AbAuditFee	The residuals from equation 6 that are defined as abnormal audit fee.
PosFee	1 if abnormal audit fees are positive, otherwise 0

Dependent Variables	**Table 1 (Continued)** **Panel B- Variable List (Fee Models)** **Description**
LN(AFee)	The natural log of audit fee (total fees) paid to the auditor in thousands of dollars
Independent Variables	
EMPLOY	The square root of number Employees (data 29)
INVREC	Inventory (data3) and receivables (data2)/total assets (deflated)
FOREIGN	1 if the firm pays any foreign income tax (data64), and 0 otherwise
EXORD	1 if the firm reports any extraordinary gains or losses (data48), and 0 otherwise
REPIRT LAG	Number of days between the current fiscal year end and the annual earnings announcement date
LOSS	If net income < 0 then 1, 0 otherwise
LOSSLAG	1 if net income < 0 in the prior year, 0 otherwise
LEV	Total long-term debt (DLTT) scaled by total assets
LIQUID	Current assets (data4) divided by current liabilities (data5)
ROA	Return on assets (income before extraordinary items (data18) divided by average total assets).
MB	The market value of equity divided by book value of equity (CSHO*PRCL_F)/(total assets (AT)-total liabilities (LT))
CHGSALE	Sales change from the prior year divided by the prior year's beginning total assets. Data12
PENSION	1 if the firm has a pension or post-retirement expense for the year, and 0 otherwise
BIG4	1 if the firm is audited by a Big 4 auditor, and 0 otherwise
SEC TIER	I if the auditor is Grant Thornton or BDO Seidman, 0 otherwise
SHORT TENURE	1 if the audit client relations is only 2 or less years old, 0 otherwise
LNTA	The natural log of total assets (data6) in thousands of dollars
ISSUE	1 if the firm issued long-term data (data111) or equity (data108) in the last 3 years that is more than 5 percent of total assets, 0 otherwise
Industry and year dummies	Industry dummy variables for two-digit SIC industry classification
e	Error term
Variables of interest	
LongSpecDuration	The auditor is currently the industry specialist and has been the specialist for the last 3 or more years (4 or more years).
ShrtSpecDuration	The auditor is currently the industry specialist and has been the specialist only the last 2 or less years (1 – 3 years).

Table 2 Sample Selection	
Panel A: Sample For computing auditor expertise	
Total observations download from Audit Analytics	111048
-Delete due to merge Compustat and Audit Analytics	-53287
Number of observations from Merge with Compustat	57761
-Delete due to SIC (6000-6999) and Year (>2002)	-18230
Number of observations after SIC year>2002	39531
-Delete due to missing value to compute Specialist	450
Number of observations after Specialist is computed	39981
-Delete observations with less than two observations in each SIC code In a given year, Winsorization, discentionary accruals model	-5760
Number of observations after reduction of SIC and Winsorization	34221
- Delete due to merge Compustat Annual and Compustat Quartile	
Final sample	22776
Audit Quality Test (Audit Duration)	
Final sample from panel A	22776
Reduce Sample to >=2006	-9848
-Delete missing values	-1606
Test Sample	11322
Audit Fee (Audit Duration)	
Final sample from panel A	22776
Reduce Sample to >=2006	12928
-Delete missing values	-1503
Test sample	11425

Table 3					
Specialist Duration Descriptive Statistics					
Panel A: Definition One - National			Panel B: Definition Two - National		
Variable	**Mean**	**Std. Dev.**	**Variable**	**Mean**	**Std. Dev.**
LongSpecDuration	0.05	0.22	LongSpecDuration	0.08	0.28
ShrtSpecDuration	0.05	0.21	ShrtSpecDuration	0.06	0.24
Definition One - City			Definition Two - City		
LongSpecDuration	0.19	0.40	LongSpecDuration	0.17	0.38
ShrtSpecDuration	0.12	0.32	ShrtSpecDuration	0.10	0.30
Definition One - National and City			Definition Two - National and City		
LongSpecDuration	0.04	0.18	LongSpecDuration	0.05	0.22
ShrtSpecDuration	0.03	0.18	ShrtSpecDuration	0.04	0.19
Definition One - National but not City			Definition Two - National but not City		
LongSpecDuration	0.01	0.08	LongSpecDuration	0.02	0.14
ShrtSpecDuration	0.02	0.15	ShrtSpecDuration	0.04	0.19
Definition One - City but not National			Definition Two - City but not National		
LongSpecDuration	0.11	0.32	LongSpecDuration	0.09	0.29
ShrtSpecDuration	0.12	0.33	ShrtSpecDuration	0.09	0.29

Table 4: Panel A: Discretionary Accruals					
Descriptive Statistics of Variables in Multivariate Analysis					
Variable	Mean	Std. Deviation	25% Percentile	Median	75% Percentile
|DA|	0.14	0.24	0.03	0.07	0.14
DA	0.01	0.34	-0.05	0.01	0.08
SIZE	5.61	2.25	4.04	5.67	7.17
MB	2.78	6.97	1.07	1.88	3.39
CFO	-0.03	0.46	-0.02	0.07	0.14
σ (CFO)	0.13	0.3	0.03	0.05	0.11
LEV	0.19	0.25	0	0.1	0
LOSS	0.41	0.49	0	0	1
LIT	0.24	0.43	0	0	0
|TA_1|	0.19	0.51	0.04	0.07	0.15
ALTMAN	-0.14	15.52	0.4	2.13	3.99
SHORT TENURE	0.26	0.44	0	0	1
BIG4	0.64	0.48	0	1	1
SEC TIER	0.1	0.3	0	0	0

Table 4: Panel B: Fee Model					
Variable	Mean	Std. Deviation	25% Percentile	Median	75% Percentile
LN(AFee)	13.44	1.4	12.5	13.53	14.36
EMPLOY	1.46	1.77	0.35	0.81	1.83
INVREC	0.22	0.19	0.07	0.17	0.33
FOREIGN	0.4	0.49	0	0	1
EXORD	0.17	0.38	0	0	0
REPORT LAG	58.3	20.66	41	57	74
LOSS	0.41	0.49	0	0	1
LOSSLAG	0.41	0.49	0	0	1
LEV	0.19	0.25	0	0.1	0
LIQUID	3.05	3.47	1.21	1.97	3.43
ROA	-0.17	0.74	-0.11	0.02	0.07
MB	2.78	6.97	1.07	1.88	3.39
CHGSALE	1850.6	4689.14	33.43	223.09	1204.31
PENSION	0.7	0.46	0	1	1
BIG4	0.64	0.48	0	1	1
SEC TIER	0.1	0.3	0	0	0
SHORT TENURE	0.26	0.44	0	0	1
LNAT	5.63	2.49	3.94	5.64	7.4
ISSUE	0.45	0.5	0	0	1

Table 5 (Pearson Correlation)

Panel A: Audit Quality

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	DA	1													
2	|DA|	-0.1745	1												
3	SIZE	-0.042	-0.2801	1											
4	MB	0.008	0.0602	0.0954	1										
5	CFO	-0.0205	-0.5341	0.3068	-0.0021	1									
6	σ (CFO)	-0.0564	0.6179	-0.293	0.0298	-0.6834	1								
7	LEV	-0.0098	0.022	0.1086	-0.1113	-0.0445	-0.004	1							
8	LOSS	-0.0828	0.2438	-0.4366	-0.0027	-0.4043	0.2279	0.0421	1						
9	LIT	-0.0166	0.1377	-0.1068	0.0395	-0.1924	0.1648	-0.1151	0.1943	1					
10	|TA_1|	-0.0603	0.4082	-0.2055	0.0303	-0.4399	0.4416	0.0089	0.1981	0.0733	1				
11	ALTMAN	0.0527	-0.4252	0.3215	0.1535	0.5163	-0.5298	-0.1755	-0.2771	-0.0973	-0.3351	1			
12	SHORT TENURE	-0.0193	0.1528	-0.24	0.01	-0.1309	0.1617	-0.0275	0.1097	0.0076	0.1689	-0.093	1		
13	BIG4	-0.0071	-0.2258	0.6164	0.0154	0.2082	-0.2323	0.1203	-0.2151	-0.0287	-0.1947	0.1811	-0.3121	1	
14	SEC TIER	0.0005	-0.0197	-0.1348	0.0004	0.0346	-0.0329	-0.0591	0.0298	0.0017	-0.0278	0.0529	0.0369	-0.4449	1
15	National and City (Long)	-0.0017	-0.0638	0.1859	-0.0147	0.0374	-0.051	0.0618	-0.0814	-0.0885	-0.0395	0.0178	-0.0727	0.1143	-0.0508
16	National and City (Short)	0.0086	-0.0331	0.1016	-0.0105	0.0327	-0.0359	0.0457	-0.0402	-0.0626	-0.0307	0.0253	-0.012	0.1188	-0.0528
17	National and Not City (Long)	-0.0002	-0.0312	0.0463	-0.0107	0.021	-0.0265	0.031	-0.0463	-0.0483	-0.0196	0.012	-0.0458	0.0623	-0.0277
18	National and Not City (Short)	-0.0053	-0.0314	0.046	0.0086	0.0302	-0.0267	0.0127	-0.0272	-0.0455	-0.0194	0.0294	-0.0177	0.1078	-0.048
19	City and Not National (Long)	-0.0023	-0.0612	0.1942	0.0204	0.053	-0.0546	0.0277	-0.055	0.0724	-0.0574	0.0371	-0.1778	0.2471	-0.0999
20	City and Not National (Short)	0.005	-0.0384	0.1098	0.0099	0.0349	-0.0494	0.0122	-0.0535	-0.0364	-0.034	0.0517	0.0502	0.1699	-0.073

	Variable	13	14	15	16	17	18
15	National and City (Long)	1					
16	National and City (Short)	-0.0227	1				
17	National and Not City (Long)	-0.0119	-0.0124	1			
18	National and Not City (Short)	-0.0206	-0.0214	-0.0112	1		
19	City and Not National (Long)	-0.0553	-0.0575	-0.0301	-0.0522	1	
20	City and Not National (Short)	-0.0531	-0.0552	-0.0289	-0.0501	-0.1344	1

Correlations for the model 3 are provided for the long and short duration specialist variables for definition 1 are only, because definition 2 provides similar results with regards to the direction of the correlation between the variables.

Table 5: Panel B: Audit Fee

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	LN(AFee)	1														
2	EMPLOY	0.7005	1													
3	INVREC	-0.0588	0.0309	1												
4	FOREIGN	0.502	0.3671	0.1667	1											
5	EXORD	0.2224	0.196	0.0034	0.0835	1										
6	REPORT_LAG	-0.6153	-0.4793	0.0781	-0.4017	-0.0592	1									
7	LOSS	-0.3141	-0.315	-0.1257	-0.2474	-0.0562	0.3482	1								
8	LOSSLAG	-0.3141	-0.3189	-0.1244	-0.2452	-0.0349	0.325	0.5806	1							
9	LEV	0.1738	0.1268	-0.1463	-0.0639	0.0882	-0.0018	0.0358	0.0331	1						
10	LIQUID	-0.2422	-0.222	-0.1375	-0.0915	-0.1111	0.0594	0.0867	0.0748	-0.2347	1					
11	ROA	0.3284	0.2063	0.1129	0.2201	0.0695	-0.2917	-0.3282	-0.4117	-0.0438	0.0183	1				
12	MB	-0.0137	-0.0077	-0.0257	-0.0141	-0.0401	-0.0316	0	0.0279	-0.1082	0.0469	-0.0098	1			
13	CHGSALE	0.5633	0.7761	-0.0123	0.2173	0.1439	-0.3631	-0.2193	-0.2179	0.0839	-0.1619	0.1155	-0.0043	1		
14	PENSION	0.3617	0.2521	0.0595	0.2192	0.0998	-0.2734	-0.2492	-0.2592	0.0509	-0.0956	0.2618	-0.0215	0.1453	1	
15	BIG4	0.6649	0.3982	-0.1619	0.3146	0.0872	-0.5349	-0.2112	-0.2075	0.126	-0.086	0.2148	0.0112	0.2714	0.2756	1
16	SEC TIER	-0.0963	-0.1205	0.0703	-0.025	0.0018	0.0779	0.025	0.0173	-0.056	0.0276	0.0388	-0.0004	-0.1071	0.0153	-0.4445
17	SHORT TENURE	-0.2653	-0.177	0.0313	-0.1413	-0.042	0.2834	0.1098	0.134	-0.0308	0.0474	-0.1414	0.0108	-0.1288	-0.1586	-0.3186
18	LNAT	0.8855	0.7083	-0.1359	0.405	0.2014	-0.6409	-0.4153	-0.4132	0.2136	-0.1937	0.4307	-0.0149	0.5901	0.3835	0.6169
19	ISSUE	0.0049	-0.0101	-0.1358	-0.1123	0.002	0.087	0.1374	0.1164	0.2864	-0.0967	-0.1921	0.041	0.002	-0.0779	-0.0073
20	National and City (Long)	0.171	0.2052	-0.0708	-0.027	0.0736	-0.1283	-0.081	-0.0846	0.0601	-0.0757	0.0418	-0.0143	0.2502	0.0576	0.115
21	National and City (Short)	0.1174	0.1212	-0.0255	-0.0026	0.032	-0.0639	-0.0408	-0.0465	0.0527	-0.0416	0.0363	-0.0122	0.1002	0.041	0.1218
22	National and Not City (Long)	0.0438	0.0221	-0.0159	0.002	0.0286	-0.0317	-0.0432	-0.0408	0.0316	-0.0286	0.0206	-0.0102	0.039	0.032	0.0607
23	National and Not City (Short)	0.0478	0.0325	-0.012	-0.0016	0.0126	-0.0341	-0.0277	-0.0159	0.0161	-0.0158	0.0315	0.0079	0.0045	0.0369	0.108
24	City and Not National (Long)	0.2132	0.1773	-0.0433	0.1136	0.0262	-0.1753	-0.0519	-0.0429	0.0218	-0.0185	0.0545	0.0189	0.1598	0.0803	0.2475
25	City and Not National (Short)	0.1304	0.0942	0.0038	0.0775	0.0211	-0.0784	-0.0529	-0.0476	0.0117	-0.0031	0.0456	0.0106	0.0367	0.0263	0.1742

	Variable	16	17	18	19	20	21	22	23	24	25
16	SEC TIER	1									
17	SHORT TENURE	0.0291	1								
18	LNAT	-0.1058	-0.2596	1							
19	ISSUE	-0.029	0.0746	0.014	1						
20	National and City (Long)	-0.0511	-0.0753	0.2191	0.0089	1					
21	National and City (Short)	-0.0541	-0.0087	0.1331	0.0209	-0.0231	1				
22	National and Not City (Long)	-0.027	-0.0456	0.0624	-0.0302	-0.0115	-0.0122	1			
23	National and Not City (Short)	-0.048	-0.0207	0.0557	-0.0116	-0.0205	-0.0217	-0.0108	1		
24	City and Not National (Long)	-0.1001	-0.1838	0.189	-0.0205	-0.055	-0.0582	-0.029	-0.0516	1	
25	City and Not National (Short)	-0.0739	0.0503	0.1064	0.0057	-0.0532	-0.0563	-0.0281	-0.05	-0.1339	1

Table 6
Dependent variable is the absolute value of abnormal accruals (|DA|) and Auditor Industry Specialist Duration
(N=11322)

		Specialist Variable 1						Specialist Variable 2					
Variable	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	?	0.102	<.001	0.103	<.001	0.102	<.001	0.103	<.001	0.103	<.001	0.102	<.001
SIZE	-	-0.004	0.145	-0.004	0.123	-0.004	0.149	-0.004	0.133	-0.004	0.129	-0.004	0.146
MB	+	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001	0.002	0.001
CFO	-	-0.068	0.004	-0.068	0.004	-0.068	0.004	-0.068	0.004	-0.068	0.004	-0.068	0.004
σ (CFO)	+	0.326	<.001	0.326	<.001	0.326	<.001	0.326	<.001	0.326	<.001	0.326	<.001
LEV	-	0.02	0.058	0.02	0.067	0.02	0.06	0.02	0.066	0.02	0.066	0.02	0.066
LOSS	+	0.01	0.028	0.01	0.027	0.01	0.027	0.01	0.028	0.01	0.026	0.01	0.026
LIT	+	0.01	0.305	0.011	0.251	0.01	0.288	0.01	0.301	0.011	0.271	0.01	0.294
|TA_1|	+	0.055	<.001	0.055	<.001	0.055	<.001	0.055	<.001	0.055	<.001	0.055	<.001
ALTMAN	-	-0.001	<.001	-0.001	<.001	-0.001	<.001	-0.001	<.001	-0.001	<.001	-0.001	<.001
SHORT TENURE	-	0.01	0.03	0.009	0.044	0.009	0.042	0.009	0.036	0.009	0.04	0.009	0.043
BIG4	-	-0.022	<.001	-0.022	<.001	-0.021	<.001	-0.021	0.001	-0.022	<.001	-0.02	0.001
SEC TIER	-	-0.016	0.008	-0.016	0.011	-0.016	0.008	-0.016	0.009	-0.016	0.01	-0.016	0.009
National Specialist													
LongSpecDuration	-	**-0.029**	**<.001*** **					**-0.018**	**<.001*** **				
ShrtSpecDuration	-	-0.001	0.846					**-0.007**	**0.084***				
City Specialist													
LongSpecDuration	-			**-0.006**	**0.098***					**-0.007**	**0.054***		
ShrtSpecDuration	-			0.001	0.808					0	0.935		
City and National Specialist													
LongSpecDuration	-					**-0.03**	**<.001*** **					**-0.019**	**0.002*** **
ShrtSpecDuration	-					0	0.978					-0.007	0.158
National Specialist only													
LongSpecDuration	-					**-0.026**	**<.001*** **					**-0.016**	**0.012** **
ShrtSpecDuration	-					**-0.012**	**0.017** **					**-0.01**	**0.019** **
City Specialist only													
LongSpecDuration	-					**-0.005**	**0.065***					-0.006	0.14
ShrtSpecDuration	-					0.001	0.755					0.001	0.872
F- Value		387.88	<.001	340.91	<.001	421.49	<.001	371.95	<.001	339.41	<.001	474.32	<.001
R-squared		**0.44**		**0.44**		**0.44**		**0.44**		**0.44**		**0.44**	

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. The variables definitions are defined in Table 2 Panel A.

Table 7
Dependent variable is the absolute value of income increasing abnormal accruals (|DA|<0)
(N=5237)

		Specialist Variable 1						Specialist Variable 2					
Variable	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	?	0.006	0.757	0.006	0.764	0.005	0.783	0.006	0.746	0.005	0.781	0.006	0.768
SIZE	-	0.003	0.095	0.003	0.112	0.003	0.09	0.003	0.105	0.003	0.102	0.003	0.098
MB	+	0	0.178	<.001	0.176	0	0.178	0	0.178	0	0.18	0	0.179
CFO	-	-0.016	0.586	-0.016	0.591	-0.016	0.586	-0.017	0.579	-0.016	0.584	-0.017	0.578
σ (CFO)	+	0.529	<.001	0.529	<.001	0.529	<.001	0.529	<.001	0.529	<.001	0.529	<.001
LEV	-	-0.001	0.903	-0.001	0.903	-0.001	0.906	-0.001	0.9	-0.001	0.903	-0.001	0.904
LOSS	+	0.067	<.001	0.067	<.001	0.067	<.001	0.067	<.001	0.067	<.001	0.067	<.001
LIT	+	0.012	0.151	0.013	0.131	0.013	0.141	0.012	0.158	0.012	0.15	0.013	0.156
|TA_1|	+	0.092	<.001	0.092	<.001	0.092	<.001	0.092	<.001	0.091	<.001	0.091	<.001
ALTMAN	-	-0.001	0.025	-0.001	0.026	-0.001	0.024	-0.001	0.025	-0.001	0.025	-0.001	0.025
SHORT TENURE	-	0.008	0.352	0.008	0.38	0.008	0.392	0.008	0.368	0.007	0.417	0.007	0.455
BIG4	-	-0.003	0.682	-0.002	0.782	-0.003	0.717	-0.002	0.774	-0.002	0.806	-0.001	0.877
SEC TIER	-	0.01	0.323	0.01	0.311	0.009	0.33	0.01	0.319	0.01	0.318	0.009	0.33
National Specialist													
LongSpecDuration	-	**-0.018**	**0.016****					**-0.013**	**0.005*****				
ShrtSpecDuration	-	0.012	0.165					0.002	0.778				
City Specialist													
LongSpecDuration	-			-0.006	0.249					**-0.011**	**0.091***		
ShrtSpecDuration	-			0.001	0.845					0.006	0.507		
City and National Specialist													
LongSpecDuration	-					**-0.025**	**0.005*****					**-0.018**	**0.012****
ShrtSpecDuration	-					0.015	0.216					0.011	0.19
National Specialist only													
LongSpecDuration	-					-0.005	0.588					**-0.013**	**0.021****
ShrtSpecDuration	-					0.002	0.787					-0.009	0.117
City Specialist only													
LongSpecDuration	-					-0.007	0.312					-0.014	0.155
ShrtSpecDuration	-					0.002	0.733					0	0.958
F-Value		199.32	<.001	303.89	<.001	332.06	<.001	209.4	<.001	323.15	<.001	250.92	<.001
R-squared		**0.4305**		**0.4304**		**0.4306**		**0.4305**		**0.4306**		**0.4308**	

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. The variables definitions are defined in Table 2 Panel A.

Table 8
Dependent variable is the absolute value of income increasing abnormal accruals (|DA|>0)
(N=6034)

		Specialist Variable 1						Specialist Variable 2					
Variable	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	?	0.153	<.001	0.153	<.001	0.153	<.001	0.153	<.001	0.01	<.001	0.153	<.001
SIZE	-	-0.007	<.001	-0.007	<.001	-0.007	<.001	-0.007	<.001	0.002	<.001	-0.007	<.001
MB	+	0	0.021	0	0.02	0	0.019	0	0.02	0	0.021	0	0.021
CFO	-	-0.138	<.001	-0.137	<.001	-0.137	<.001	-0.137	<.001	0.028	<.001	-0.137	<.001
σ (CFO)	+	0.267	<.001	0.269	<.001	0.268	<.001	0.268	<.001	0.031	<.001	0.268	<.001
LEV	-	-0.022	<.001	-0.023	<.001	-0.023	<.001	-0.023	<.001	0.005	<.001	-0.023	<.001
LOSS	+	-0.052	<.001	-0.052	<.001	-0.052	<.001	-0.052	<.001	0.011	<.001	-0.052	<.001
LIT	+	-0.01	0.126	-0.009	0.21	-0.01	0.148	-0.01	0.146	0.007	0.201	-0.01	0.153
|TA_1|	+	0.082	0.011	0.082	0.011	0.082	0.011	0.082	0.011	0.031	0.011	0.082	0.011
ALTMAN	-	-0.001	0.001	-0.001	0.001	-0.001	0.001	-0.001	0.001	0	0.001	-0.001	0.001
SHORT TENURE	-	0.004	0.248	0.004	0.221	0.004	0.282	0.004	0.257	0.003	0.193	0.004	0.258
BIG4	-	-0.017	0.001	-0.016	0.002	-0.016	0.002	-0.015	0.002	0.005	0.002	-0.015	0.004
SEC TIER	-	-0.018	0.016	-0.018	0.024	-0.018	0.018	-0.018	0.018	0.007	0.024	-0.018	0.019
National Specialist													
LongSpecDuration	-	**-0.035**	**<.001*** **					**-0.019**	**0.02****				
ShrtSpecDuration	-	0.001	0.917					-0.005	0.476				
City Specialist													
LongSpecDuration	-			-0.006	0.19					0.007	0.575		
ShrtSpecDuration	-			0.006	0.489					0.009	0.71		
City and National Specialist													
LongSpecDuration	-					**-0.031**	**<.001*** **					**-0.016**	**0.077***
ShrtSpecDuration	-					0.003	0.864					-0.008	0.471
National Specialist only													
LongSpecDuration	-					**-0.038**	**<.001*** **					**-0.018**	**0.086***
ShrtSpecDuration	-					**-0.016**	**0.077***					-0.011	0.13
City Specialist only													
LongSpecDuration	-					-0.005	0.308					0	0.964
ShrtSpecDuration	-					0.002	0.692					0.001	0.85
F-Value		120.23	<.001	147.51	<.001	140.63	<.001	122.12	<.001	148.65	<.001	132.56	<.001
R-squared		**0.4239**		**0.423**		**0.4238**		**0.4234**		**0.4229**		**0.4233**	

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. The variables definitions are defined in Table 2 Panel A.

Table 9
Dependent variable is the natural logarithm of Audit fees and Auditor Industry Specialist Duration
(N=11425)

		Specialist Variable 1						Specialist Variable 2					
Variables	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	?	50.955	<.001	52.312	<.001	51.013	<.001	52.665	<.001	52.411	<.001	52.977	<.001
EMPLOY	+	0.072	<.001	0.072	<.001	0.071	<.001	0.073	<.001	0.073	<.001	0.073	<.001
INVREC	+	0.322	<.001	0.324	<.001	0.323	<.001	0.324	<.001	0.324	<.001	0.323	<.001
FOREIGN	+	0.377	<.001	0.387	<.001	0.378	<.001	0.385	<.001	0.386	<.001	0.385	<.001
EXORD	+	0.128	<.001	0.125	<.001	0.127	<.001	0.126	<.001	0.125	<.001	0.126	<.001
REPORT_lAG	+	0.000	0.182	-0.001	0.150	0.000	0.178	-0.001	0.146	-0.001	0.151	-0.001	0.136
LOSS	+	0.156	<.001	0.157	<.001	0.156	<.001	0.157	<.001	0.157	<.001	0.157	<.001
LOSSLAG	+	0.123	<.001	0.124	<.001	0.122	<.001	0.124	<.001	0.124	<.001	0.123	<.001
LEV	+	-0.056	0.035	-0.056	0.034	-0.055	0.038	-0.056	0.033	-0.057	0.033	-0.057	0.033
LIQUID	-	-0.024	<.001	-0.023	<.001	-0.024	<.001	-0.023	<.001	-0.023	<.001	-0.023	<.001
ROA	-	-0.063	<.001	-0.062	<.001	-0.063	<.001	-0.062	<.001	-0.062	<.001	-0.062	<.001
MB	+	0.000	0.587	0.000	0.595	-0.001	0.557	0.000	0.603	0.000	0.613	0.000	0.607
CHGSALE	+	0.000	<.001	0.000	<.001	0.000	<.001	0.000	<.001	0.000	<.001	0.000	<.001
PENSION	+	0.030	0.013	0.031	0.012	0.031	0.011	0.030	0.013	0.030	0.013	0.030	0.015
BIG4	+	0.708	<.001	0.696	<.001	0.698	<.001	0.706	<.001	0.704	<.001	0.702	<.001
SEC TIER	+	0.427	<.001	0.429	<.001	0.427	<.001	0.428	<.001	0.429	<.001	0.428	<.001
SHORT TENURE	-	0.013	0.342	0.016	0.250	0.015	0.259	0.014	0.292	0.015	0.267	0.016	0.229
LNAT	+	0.372	<.001	0.369	<.001	0.372	<.001	0.370	<.001	0.370	<.001	0.370	<.001
ISSUE	+	0.007	0.502	0.009	0.396	0.007	0.483	0.008	0.437	0.009	0.410	0.008	0.428
National Specialist													
LongSpecDuration	?	**-0.133**	**<.001*** **					**-0.032**	**0.085***				
ShrtSpecDuration	?	**-0.084**	**0.007*** **					-0.007	0.776				
City Specialist													
LongSpecDuration	?			**0.027**	**0.043** **					-0.003	0.821		
ShrtSpecDuration	?			0.026	0.124					0.003	0.861		
City and National Specialist													
LongSpecDuration	?					**-0.120**	**<.001*** **					**-0.043**	**0.091***
ShrtSpecDuration	?					-0.045	0.213					0.025	0.373
National Specialist only													
LongSpecDuration	?					**-0.161**	**0.003*** **					0.010	0.777
ShrtSpecDuration	?					**-0.101**	**0.008*** **					-0.019	0.474
City Specialist only													
LongSpecDuration	?					**0.045**	**0.002*** **					0.023	0.162
ShrtSpecDuration	?					**0.038**	**0.02** **					-0.004	0.824
F- Value		3086.81	<.001	3085.11	<.001	2626.07	<.001	3080.72	<.001	3085.53	<.001	2616.45	<.001
R-squared		**0.8586**		**0.8583**		**0.8588**		**0.8582**		**0.8582**		**0.8583**	

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. Variable definitions are located in Table 2 Panel B.

Table 10

Dependent variable is the absolute value of abnormal accruals (|DA|)

(N= 11077)

		Specialist Variable 1						Specialist Variable 2					
Variable	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	?	0.104	<.001	0.104	<.001	0.103	<.001	0.103	<.001	0.104	<.001	0.103	<.001
SIZE	-	-0.003	0.183	-0.004	0.145	-0.004	0.172	-0.004	0.167	-0.004	0.157	-0.004	0.180
MB	+	0.002	<.001	0.002	<.001	0.002	<.001	0.002	<.001	0.002	<.001	0.002	<.001
CFO	-	-0.069	0.005	-0.068	0.005	-0.069	0.005	-0.069	0.005	-0.068	0.005	-0.069	0.005
σ (CFO)	+	0.320	<.001	0.320	<.001	0.320	<.001	0.320	<.001	0.320	<.001	0.320	<.001
LEV	-	0.020	0.070	0.019	0.084	0.020	0.074	0.019	0.081	0.019	0.081	0.020	0.076
LOSS	+	0.011	0.012	0.011	0.013	0.011	0.013	0.011	0.012	0.011	0.012	0.011	0.010
LIT	+	0.009	0.341	0.010	0.278	0.010	0.322	0.009	0.333	0.010	0.301	0.010	0.322
|TA_1|	+	0.057	<.001	0.057	<.001	0.057	<.001	0.057	<.001	0.057	<.001	0.057	<.001
ALTMAN	-	-0.001	<.001	-0.001	<.001	-0.001	<.001	-0.001	<.001	-0.001	<.001	-0.001	<.001
SHORT TENURE	-	0.009	0.033	0.009	0.046	0.009	0.045	0.009	0.038	0.009	0.041	0.009	0.048
BIG4	-	-0.023	<.001	-0.023	<.001	-0.022	<.001	-0.022	0.001	-0.022	<.001	-0.021	0.001
SEC TIER	-	-0.016	0.012	-0.016	0.016	-0.016	0.013	-0.016	0.013	-0.016	0.015	-0.016	0.013
PosFee		-0.013	0.101	0.004	0.646	0.002	0.828	-0.011	0.187	0.003	0.707	0.002	0.848
AbAuditFee		0.003	0.717	-0.011	0.173	-0.011	0.169	0.002	0.829	-0.012	0.142	-0.011	0.197
AbAuditFee*PosFee	+	0.018	0.020	0.018	0.024	0.021	0.010	0.018	0.031	0.019	0.020	0.019	0.040

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. The variables definitions are defined in Table 2 Panel A.

Table 10 (Continued)
Dependent variable is the absolute value of abnormal accruals (|DA|)
(N= 11077)

		Specialist Variable 1						Specialist Variable 2					
Variable	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
National Specialist													
LongSpecDuration	-	**-0.029**	**<.001*** **					**-0.018**	**0.002*** **				
ShrtSpecDuration	-	-0.003	0.690					-0.008	0.137				
National Specialist													
AbAuditFee*PosFee*LongSpecDuration	?	0.001	0.861					0.001	0.948				
AbAuditFee*PosFee*ShrtSpecDuration	?	-0.008	0.576					-0.006	0.620				
City Specialist													
LongSpecDuration	-			-0.003	0.519					-0.005	0.307		
ShrtSpecDuration	-			0.003	0.661					0.001	0.853		
City Specialist													
AbAuditFee*PosFee*LongSpecDuration	?			-0.012	0.332					-0.011	0.320		
AbAuditFee*PosFee*ShrtSpecDuration	?			-0.004	0.574					-0.006	0.687		
City and National Specialist													
LongSpecDuration	-					**-0.030**	**<.001*** **					**-0.021**	**0.007*** **
ShrtSpecDuration	-					0.002	0.822					-0.006	0.322
City and National Specialist													
AbAuditFee*PosFee*LongSpecDuration	?					0.000	0.966					0.007	0.683
AbAuditFee*PosFee*ShrtSpecDuration	?					-0.017	0.170					-0.014	0.101
National Specialist only													
LongSpecDuration	-					**-0.024**	**0.002*** **					-0.010	0.144
ShrtSpecDuration	-					-0.012	0.105					-0.017	0.126
National Specialist only													
AbAuditFee*PosFee*LongSpecDuration	?					0.002	0.902					**-0.021**	**0.097***
AbAuditFee*PosFee*ShrtSpecDuration	?					-0.009	0.689					0.031	0.342
City Specialist only													
LongSpecDuration	-					-0.001	0.897					0.000	0.956
ShrtSpecDuration	-					0.002	0.725					0.000	0.951
City Specialist only													
AbAuditFee*PosFee*LongSpecDuration	?					-0.023	0.227					**-0.028**	**0.054***
AbAuditFee*PosFee*ShrtSpecDuration	?					-0.001	0.935					0.005	0.789
F- Value		424.22	<.001	368.18	<.001	1078.49	<.001	335.79	<.001	298	<.001	958.9	<.001
Adj. Rsquared		**0.4322**		**0.4318**		**0.4323**		**0.4321**		**0.4319**		**0.4323**	

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. The variables definitions are defined in Table 2 Panel A.

Table 11 Specialist Sample
Dependent variable is the absolute value of abnormal accruals (|DA|) and Auditor Industry Specialist Duration
(N=3766)

		Specialist Variable 1						Specialist Variable 2					
Variable	Exp. Sign	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Intercept	?	0.113	<.001	0.071	<.001	0.075	<.001	0.106	<.001	0.019	<.001	0.08	<.001
SIZE	-	-0.007	<.001	-0.004	0.003	-0.004	0.004	-0.007	<.001	0.001	0.004	-0.004	0.003
MB	+	0.003	0.001	0.002	0.005	0.002	0.002	0.003	0.001	0.001	0.005	0.002	0.002
CFO	-	0.024	0.447	0.014	0.719	0.016	0.694	0.028	0.368	0.039	0.722	0.016	0.695
σ (CFO)	+	0.442	<.001	0.501	<.001	0.488	<.001	0.45	<.001	0.13	<.001	0.488	<.001
LEV	-	-0.009	0.554	0.02	0.214	0.019	0.228	-0.007	0.678	0.016	0.215	0.019	0.235
LOSS	+	0.016	0.069	0.023	0.009	0.024	0.006	0.018	0.055	0.009	0.01	0.024	0.007
LIT	+	0.014	0.113	0.003	0.613	0.002	0.706	0.018	0.038	0.005	0.706	0.002	0.616
|TA_1|	+	0.017	0.129	0.099	0.054	0.095	0.059	0.017	0.134	0.05	0.053	0.095	0.058
ALTMAN	-	-0.004	0.034	-0.001	0.063	-0.001	0.031	-0.003	0.063	0.001	0.064	-0.001	0.035
SHORT TENURE	-	-0.002	0.819	0.01	0.164	0.009	0.133	0.002	0.837	0.008	0.187	0.01	0.117
BIG4	-	(omitted)		-0.016	0.454	-0.018	0.405	(omitted)		0.021	0.453	-0.017	0.459
SEC TIER	-	(omitted)		-0.025	0.272	-0.029	0.226	(omitted)		0.023	0.273	-0.029	0.231
National Specialist													
LongSpecDuration	-	**-0.037**	**0.001*****					-0.023	0.114				
ShrtSpecDuration	-	**-0.015**	**0.085***					-0.01	0.306				
City Specialist													
LongSpecDuration	-			0.001	0.929					0.005	0.35		
ShrtSpecDuration	-			0.004	0.608					0.009	0.991		
City and National Specialist													
LongSpecDuration	-					**-0.02**	**0.001*****					**-0.014**	**0.016****
ShrtSpecDuration	-					0.003	0.645					-0.007	0.27
National Specialist only													
LongSpecDuration	-					**-0.017**	**0.009*****					**-0.015**	**0.016****
ShrtSpecDuration	-					-0.011	0.132					**-0.018**	**0.077***
City Specialist only													
LongSpecDuration	-					-0.002	0.743					-0.007	0.106
ShrtSpecDuration	-					0.004	0.538					0	0.955
F- Value		1251.12	<.001	244.81	<.001	475.39	<.001	1226.93	<.001	302.5	<.001	478.63	<.001
Adj. Rsquared		**0.5081**		**0.4217**		**0.4167**		**0.499**		**0.4218**		**0.4163**	

The model is estimated with OLS regression. The P-values of the coefficients are tested with a two-tail robust standard errors corrected for heteroskedasticity and time series following Rogers [1993]. The P-values are at a significances level at the .10, .05, and .01 levels and are denoted *, **, ***, respectively. The variables definitions are defined in Table 2 Panel A.