AUDIT FEES AND PRICING STRATEGY: DO RESTATEMENTS OF INTERNAL CONTROL REPORTS AND EARNINGS MATTER?

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Abstract

Under Sarbanes-Oxley (SOX) Act Section 302, management should, from one hand, certify and disclose in reports the effectiveness of internal controls applied to processes and procedures followed by a listed entity and, on the other, highlight potential deficiencies and provide information on potential frauds or sources of risk that could negatively impact on the effectiveness of the internal controls in place. Building on the above, SOX Act Section 404 requires that management should report information in its annual reports regarding the adequacy and effectiveness of the system of internal controls, which affects the procedures of financial reporting. These internal control reports, as part of the internal audit system within an organization, they undergo a review initially by the internal audit department and then by external auditors. The external auditors' comments may dictate certain changes to be made, which could inevitably lead to refinements, which are then depicted to the adjusted internal control reports. The need for restatements of internal control reports is definitely associated with additional work from the side of the external auditor and may initiate more extensive audit work. Hence, the aim of the particular study is to investigate to what extent the audit fees paid to external auditors (i.e. the audit firm) are affected by such restatements to the internal control reports and whether the entity's earnings and book value of equity have a mediating role to the above relationship.

The innovativeness of the current research lies at the fact that it is the first time that a research focuses on "Restatements of Internal Control Reports" (RICR) and "Firm's Earnings" (FE) as significant determinants of "Audit Fees" (AF) paid to external auditors, providing materially useful evidence about the behavioral profile of audit firms concerning their pricing strategy. Employing a dataset that captures the period before and during the global financial crisis of 2007-2008, we use RICR as control variable to assess not only the effectiveness of internal controls, but also the performance of the selected financial institutions and to what extent do the above influence the pricing strategy adopted by audit firms.

In methodological terms, we apply Multiple Regression Analysis to a data set that consists of 2.878 observations, which stem from 300 US financial institutions and are recorded for a period of seven years that range from 2004 to 2010. The selection of the specific period facilitates comparisons between the period before and during global financial crisis. These findings are then contrasted with the results that cover the whole 2004-2010 period.

Keywords: Audit Fees, Restatements of Internal Control Report, Earnings, Book Value, Banking Sector, Financial Institutions, Pricing Strategy

1. INTRODUCTION

The global financial crisis in 2007-2008 shifted regulators' attention and academic research to advanced corporate governance practices, which were formally disclosed through regulatory directives. SOX Act Section 404 dictates that publicly traded firms in the U.S. should disclose information regarding their internal controls. Under such circumstances, the internal audit function within organizations shifted its scope to serve the changing requirements of corporate governance best practices, maintaining its utmost aim to safeguard organizations' assets and, at the same time, to provide an objective and independent assurance on the effectiveness of organization's risk management, governance and internal controls. The aforementioned crisis raised concerns regarding the effectiveness of corporate governance practices and how the internal audit system within an organization could contribute to improving operational effectiveness. Enron and WorldCom scandals initiated changes to accounting best practices, but it was the surge of the subprime market in the US that highlighted the need for more effective risk management techniques and structures, especially in the case of financial institutions (Aebi et al., 2012).

Starting from the corporate governance activities followed by organizations as a result of SOX Acts, management should report on the effectiveness of the internal controls in place over financial reporting. External auditors from their side should provide an attestation report on these controls. In case of inefficiencies, a restatement of the relevant report would be imperative. The innovativeness of our research lies at the fact that instead of examining the existence of internal controls, we move a step further by examining their restatement as an influencing factor that dictates the pricing policy adopted by an audit firm and is depicted to the AF paid by an organisation. The rationale behind the selection of the RICR as an independent variable explains the behavior of AF, restatements may originate from a potentially risky area or a procedure followed to produce financial statements vulnerable to risks. Such a situation should alarm the auditor for additional measures through the application of more advanced audit procedures before commenting on the existence of potentially material weaknesses in the effectiveness and efficiency of internal controls reported. Needless to say, that the quality and appropriateness of internal controls in place is highly associated with the accuracy of the financial statements. What auditors are concerned about is that in case of material findings regarding the internal controls, the company may be required to proceed to a restatement of the entity's earnings, which inevitably leads to a restatement of its financial statements. The implication of such a situation is that it requires not only additional audit work but also more advanced auditing processes and a more extensive audit plan, which imposes pressure to increased AF. To this direction, we use "Firm's Earnings" (FE) as well as Book Value (BV) as reported on financial statements to explore their relevance to shaping the level of audit fees paid by an organization.

In methodological terms, we employ Multiple Regression Analysis to a dataset that consists of 2.878 observations, derived from 300 US financial institutions as recorded for the period from 2004 to 2010. We test our sample once for the whole period from 2004 to 2010 and then we produce two sub-samples from it; namely, one for the period before the burst of the global financial crisis (i.e. 2004-2007) and the second for the years during the crisis period (i.e. 2008-2010). The selection of the specific period allows for comparisons not only between pre- and post-global financial crisis but also contrasts these findings with the results that cover the whole 2004-2010 period.

This research paper is structured as follows: section 2 discusses the existing literature on AF, "Internal Controls" (IC) and RICR, FE, BV and the relationship of the above with AF. Section 3 presents details on the data set and the research methodology employed. Section 4 presents and discusses findings, whereas section 5 highlights the concluding remarks.

2. LITERATURE REVIEW

This section provides a review of the relevant literature and is divided into two parts; the first presents previous research in the field of determinants of AF and the second focuses on studies that investigated the relationship between our independent variables and the AF. Form the critical discussion provided, it becomes evident the gap relative to the combination of the specific independent variables to explain the variability in AF.

2.1. Audit fees

The pioneering work of Simunic (1980) provided theoretical and empirical evidence on determinant factors of AF, concluding with the significance of auditee's total year-end assets, number of consolidated subsidiaries included in the auditee's financial statements, receivables to total assets at year-end (to capture a risky element in the balance sheet), and inventory to total assets at year-end.

Larcker and Richardson (2004) initially divided total fees paid to an auditor into audit and non-audit fees and then they inferred that total fees paid have a positive relationship with the absolute value of accruals. They also identified a negative relationship between the level of audit and non-audit fees paid to auditors and accruals.

One would expect that the adoption of corporate governance best practices would improve the control environment inside an organization leading to a decrease in the AF paid to external auditors. Felix et al. (2001) performed an empirical research on the effect of the internal audit function to the amount of AF paid concluding that the greater the contribution made by the internal audit department to the financial statement audit, the lower the AF received by the audit firm. In other words, the effective operation of the internal audit function within an organization is an indication of effective corporate governance practices, which in turn have a positive impact (i.e. reduction) on the AF paid to the external auditor. In other words, we would expect that the effectiveness and efficiency of

internal controls would reinforce the quality of the internal audit function and this would result in lower AF. However, Knechel and Willekens (2006) identified supportive evidence of a positive relationship between AF and corporate governance practices in the form of risk management through effective and efficient internal controls and the presence of an audit committee within an organization. From one hand, they justified the positive relationship between internal controls and AF by relating the increased number of the controls with the requirement for additional and more advanced audit work from the external auditor, which inevitably leads to increased compensation for it. On the other hand, these scholars associated demand for external audit with the number of an entity's stakeholders; namely, the adoption of corporate governance best practices with the establishment of an audit committee, to which the Board of Directors directly and the Line Managers indirectly report. Such a sophisticated network of relationships among managers requires increased attention to safeguard effective and efficient decision making and it is the top management that demands for extended external audits. Besides, increased audit procedures would safeguard not only the entity's assets, but also each one of the stakeholders' (including Line Managers') interests. Consequently, demand for such extended audits would lead to increased AF. In line with the positive relationship between corporate governance practices and AF, Hay et al. (2008) identified a positive relationship between improved control and corporate governance with external audit services. Building on corporate governance variables, Goodwin-Stewart and Kent (2006) asserted that the existence of an audit committee together with an internal audit department is associated with higher AF. Their rationale was that a diligent audit committee is highly probable to ask for better quality and possibly more extended external audits, which inevitably increase the cost of audit (increased AF).

Previous research on the factors that affect audit fees and specifically on the impact of abnormally high or low audit fees has revealed the association with the quality of audits (Choi et al., 2010). These scholars examined the relationship between AF and the quality of audits, inferring that it is likely to be asymmetric and nonlinear depending on whether the auditors receive abnormally high or low audit fees.

Tee et al. (2017), acknowledging the active monitoring role that institutional investors play to the governance of an organization, examined the how the behavior of these stakeholders affect the audit process through the demand for increased and more in-depth audits leading to increased AF. Moving a step further, these scholars found that institutional investors of politically connected firms (especially foreign) asked for additional audit work leading to increased audit fees.

Ettredge et al. (2018) focused on the consequences of SOX Act section 404(b) on audit fees charged by auditors focusing on the 2003-2004 period, incorporating into the sample data from the pre- and post-404(b) act. They found that large accelerated filers wanted to be prepared for the change due to the implementation of the particular act and, therefore, had asked for additional audit work during previous year leaving less work to be performed the first year that the act was implemented. Comparing the increase to the audit expense between large and small accelerated filers, they found an increase to both of them with the latter organizations facing larger increases to the audit fees paid.

In the contemporary globalised world, it is a common practice for an organization to establish subsidiaries around the world to meet its global strategic goals. From an auditing perspective, the audit of consolidated statements may be associated with high risk, especially when the number of layers within a parent-subsidiary corporation increases leading to increased audit fees too (Gul et al., 2017a; Sariannidis et al., 2009; Giannarakis et al., 2011).

Finally, Lemonakis et al. (2018) focused on the banking sector and reviewed studies on corporate governance and performance indicators from 1998 to 2017 and found that they have mainly focused on identifying the relevance of variables such as board size, board independence, number of boards with the performance of the firm measured through financial ratios such as ROA, ROE, Total Assets, Market Value, EBIT over Total Assets, etc (Garefalakis et al., 2016; Lemonakis et al., 2016).

2.2. Corporate governance and internal controls

The purpose of internal controls is to prevent misstatements of financial records before financial statements are issued safeguarding in this way the company's assets and increasing at the same time the reliability and quality of information offered by financial statements to stakeholders. Ideally, effective internal controls should act proactively providing a sense of security to stakeholders on the accuracy of financial records before official statements have been issued. Under SOX Act Section 302, management should certify and disclose in reports the effectiveness of internal control processes and procedures listing and commenting on potential deficiencies providing at the same time information on possible frauds or factors that could negatively impact on the effectiveness of internal controls in place. Building on the above, SOX Act Section 404 requires that management should report in the annual reports information regarding the adequacy and effectiveness of internal controls structure and procedures for financial reporting.

Raghunandan and Rama (2006), in a sample of 660 manufacturing firms, investigated the impact of SOX Act Section 404 during its first year of implementation on AF and they inferred that the latter was 86% higher in 2004 compared to 2003. Also, they found that in the fiscal year 2004, AF was 43% higher for companies that had disclosed material weaknesses compared to the ones that had not disclosed such weaknesses.

Hoitash et al. (2008) associated audit pricing with problems in internal controls over financial reporting as a result of the implementation of the SOX Act Sections 302 and 404. A major finding was that companies that had disclosed internal control problems under SOX Act Section 302, continued paying higher fees the following year, even if no problems were disclosed under SOX Act Section 404.

Hogan and Wilkins (2008) investigated AF contrasting a sample of companies that had disclosed internal control deficiencies with companies that had not. Their findings revealed that companies with internal control deficiencies paid 35% higher AF compared to the ones without disclosed deficiencies. Moving a step further, they supported that it was the severity of internal controls deficiencies that increased AF paid to the auditing firm associating in this way AF with levels of risk. The above findings are justified by Lee (2016) too, who found a positive relationship between severe internal control deficiencies (such as material weaknesses or company level deficiencies) with initial public offering (IPO) audit fees adopting the logic that in response to increased control risk (i.e. the risk that material misstatements will not be detected by internal controls in place), auditors expand the scope of the audit they perform, which inevitably results to increased audit work and AF.

Munsif et al. (2011) examined the impact of second and later years of internal control disclosures made under SOX Act Section 404 on AF paid by the company. One would expect that fees would be lower when a client company remediates material internal control weaknesses. However, these scholars inferred that actions taken to heal these internal control weaknesses may not be fully impounded in AF, at least in the year of remediation. Their empirical evidence showed that firms remediating material weaknesses in internal controls benefit in the form of lower AF compared to firms that did not remediate. However, focusing their analysis on a period of four years of SOX Act Section 404 reporting, they found that firms with adverse report in the first year, but clear SOX Act Section 404 report in the subsequent three years, paid an AF premium of 35%, 32%, and 21% in years two, three, and four respectively.

Seeing risk management as a sub-system within the control and audit environment within an organization, Bailey et al. (2017) acknowledged the risk mitigating impact of internal controls and concluded to a negative relationship between effective risk management system and AF. Building on the pivotal role of the internal audit function to the assessment of the effectiveness of such controls, Axén (2018) pointed that it is the disclosures made by the specific function that affect the fees paid to an external audit firm. More specifically, if organizations are prone to voluntarily disclose internal audit information, they pay less for external auditing services.

Goncharov et. al. (2014) tried to relate AF with specific accounting figures and recording procedures of a company. They focused on the value of assets and explored the impact of recording assets at fair value in contrast to their historical cost to the fees paid to external auditors. The major finding is that firms reporting their assets at fair value, they report lower AF compared to the ones that report assets at historical cost.

In a competitive market, every auditing company adopts its own pricing strategy and it is not unusual that external auditors decide to charge their clients prices that are above market standards. Exploring the role of financial reporting and the potential need for restatements in the future, Salehi et al. (2017) found empirical evidence to support a negative relationship between abnormal audit fees paid by a company and the possibility for future restatements of the financial statements.

Li and Luo (2017) incorporated contextual variables into the analysis of AF examining the relationship of the later with managerial ability, auditor's familiarity with the client and regulatory changes in the post-SOX era. They asserted the importance of soft information such as managerial ability, which was valued at a more profound variable in case of familiarity between the auditor and the manager. Moving a step further, Gul et al. (2017b) found that managerial ability drives AF in case of financial distress; namely, there is a positive relationship between managerial ability and AF in financially distressed firms and negative relationship in non-distressed ones. They also pointed out the possibility of restatement in case of financially distressed firms with high-ability managers, which leads to higher audit risk and, consequently, to higher AF.

A recent study by Grant et al. (2018) explored the impact of audit firm rotation on AF and found a strong relationship between client restatements after the decision to change audit company and increased AF; hence, in case a newly appointed auditor requires restatement, this will possibly lead to increased audit fees. These findings contrast with what Haislip et al. (2017), who found that future AF is lower when the revision of earnings is negative. These scholars justify their findings from a marketing perspective too since audit firms decide to reduce their audit fees to companies that require to perform unfavorable earnings revisions.

Thus, the review of existing literature reveals that additional work is required to the investigation of what affects the amount of AF paid by a company or, similarly, which factors shape the pricing decision adopted by auditing firms. Moreover, what has not attracted attention to the specific area is the mediating role of internal control reports produced by companies and the need for potential restatements. What we also take into account is accounting performance indicators and specifically BV and FE. Finally, following significant evidence by Kacer et al. (2018), we include a dynamic-temporal dimension to our research by collecting data on audit pricing for a period of time.

3. DATASET AND METHODOLOGY

In this section, we present details regarding the dataset we utilized, as well as the method employed. We provide the characteristics of our sample including its size and the period it covers. What is important to highlight is the appropriateness of the specific sample to explore the behavior of the variables before and during the years of the global financial crisis.

We apply Multiple Regression Analysis to a dataset derived from Audit Analytics Database, which covers all SEC registrants that have been disclosing their assessments of internal controls over financial reporting in electronic fillings since 2004. Our dataset consists of 300 institutions, 246 of which are Commercial Banking Institutions and 54 are Savings Institutions established in the US. Available data cover the period that ranges from 2004 to 2010, which allows for generating two sub-

samples; namely, one that covers the period from 2004 to 2007 and the second from 2008-2010. The analysis of data in these two sub-samples contributes to the identification of the relationship between the dependent and independent variables for the period before the burst of the global financial crisis (2004-2007) and to the comparison of these findings with the ones that refer to the period during the crisis (2008-2010). The findings from both of these sub-samples are contrasted with the findings from the regression analysis that covers the whole period (i.e. 2004-2010) for all 300 financial institutions, which aggregate into 2,878 observations.

$$\text{Audit Fees}_{ij} = bo + b1\ \text{Book Value}_{ij} + b2\ \text{Firms'Earnings}_{ij} + b3\text{Restated Internal Control Report}_{ij} + \varepsilon i \quad (1)$$

where: $AFij$ = represents the Audit Fees paid for the i-th Company for the j-th year the Dependent Variable, and the Book Value$_{ij}$ (BV_{ij}) as well as the Firms' Earnings$_{ij}$ (FE_{ij}) for the i-th Company for the j-th year respectively, and the Restated Internal Control Report$_{ij}$ ($RICR_{ij}$) taken the values of 0 in case of negative answer (i.e.: No) and 1 for positive answer (i.e.: Yes) are the independent variables in the above model and the ε_i= the error factor. The selection of the above variables is based on the bibliography. The methodological framework of the model takes on documentation from the hybrid models of Raghunandan and Rama (2006), Hoitash et al. (2008), Hogan and Wilkins (2008), Munsif et al. (2011). Running descriptive statistics with the available variables to the data set and based on the gap in the literature, we select to use the following: AF as the dependent variable, RICR (controlling for the number of restatements made to it), FE, and BV.

Table 1. Quantitative variables all sample

Statistic	*Audit Fees ($)*	*Non-Audit Fees ($)*	*Total Fees ($)*	*Stock Price ($)*	*Market Cap ($)*	*Revenue ($)*	*Earnings ($)*	*Book Value ($)*	*Assets ($)*
Nbr. of observations	2015	2015	2015	2015	2015	2015	2015	2015	2015
Minimum	-0,260	-0,198	-0,272	-0,200	-0,250	-0,242	-19,274	-21,627	-0,221
Maximum	10,910	16,295	10,067	11,504	11,018	8,584	9,303	7,895	10,679
1st Quartile	-0,260	-0,198	-0,269	-0,200	-0,244	-0,238	-0,144	-0,131	-0,218
Median	-0,255	-0,195	-0,248	-0,200	-0,236	-0,233	-0,140	-0,125	-0,214
3rd Quartile	-0,183	-0,178	-0,190	-0,200	-0,201	-0,213	-0,123	-0,101	-0,198
Mean	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Variation coefficient									
Skewness (Pearson)	5,957	9,896	5,465	5,991	6,428	5,564	-1,954	-10,497	6,359
Skewness (Fisher)	5,962	9,906	5,470	5,996	6,434	5,569	-1,956	-10,507	6,365
Skewness (Bowley)	0,856	0,655	0,462	0,144	0,612	0,623	0,612	0,625	0,643
Kurtosis (Pearson)	39,497	129,089	32,343	40,935	48,257	32,670	114,897	275,161	45,529
Kurtosis (Fisher)	39,622	129,489	32,446	41,064	48,409	32,774	115,253	276,009	45,672

Table 2. Qualitative data

Variable\Statistic	*(0=No, 1=Yes) Restated Internal Control Report*
Nbr. of observations	2015
Nbr. of missing values	0
Sum of weights	2015
Nbr. of categories	2
Mode	0
Mode frequency	1990
Categories	0
Frequency per category	1990
Rel. frequency per category (%)	98,759
Lower bound on frequencies (95%)	98,276
Upper bound on frequencies (95%)	99,243
Proportion per category	0,988
Lower bound on proportions (95%)	0,983
Upper bound on proportions (95%)	0,992

We ran our regression once for the whole period of 2004-2010 for all financial institutions (i.e. 300) and then we repeated the same by splitting the whole period into two sub-periods; namely, one for the years prior to the burst of the global financial crisis (i.e. 2004-2007) and the second for the period during crisis (i.e. 2008-2010). Looking at the plot (see appendix), AF are statistically significant.

4. DISCUSSION OF RESULTS

4.1. Multiple regression analysis for all years 2004-2010 and all 300 financial institutions

Starting our discussion from BV of assets, as shown in Table 3, we identified a potentially positive, though insignificant, relationship with AF, which cannot assist to the interpretation of the regression

analysis. However, the data implied that increases in BV of a firm resulted in increased AF paid to the external auditor.

Table 3. Multiple regression analysis all years (2004-2010), all 300 financial institutions

Variables	Value	Standard error	Pr > Chi²
Intercept (C)	0,236	0,321	0.000 (***)
Book Value	0,344	0,306	0,262
Restated Internal Control Report (0=No, 1=Yes)	0,198	0,055	0,000 (***)

*Note: *** - Significance at 1%, R²=12.21%*

The Multiple Regression Analysis revealed the relevance of RICR to interpret changes to AF paid to auditors. What is worth mentioning though is that the dataset used provided details regarding not only the restatement of internal control report but also the number of these restatements. Specifically, it took the value of 1 in case of at least one restatement of the relevant report, whereas it was 0 otherwise.

Changes to business and socioeconomic environment in which financial institutions operate (such as the beginning of the global financial crisis in 2007-2008), as well as relative directives and policies mandatory to abide with due to changes in the legal and macroeconomic framework that companies operate, are reasons that could initiate restatement of internal controls report. In the financial institution's sector, a decision to proceed with the restatement of such reports could alarm the external audit firm making it skeptical about the accuracy and true and fair view presented in the financial statements. Moreover, internal inefficiencies, various vagueness, gaps and ineffective internal controls systems (material or not) may initiate restatement of an internal control report prepared by the financial institution too. Irrespective of the reason, a restatement by itself constitutes a signal to the auditor's suspiciousness on the quality of financial statements prepared, which, in turn, initiates change to the audit strategy and audit process adopted by the audit firm and, ultimately, to the auditor's pricing policy adopted (AF charged).

The analysis of data as presented in Table 3 provides evidence of strong positive relationship (at 1% significance level) between RICR and AF, which denotes that a revision to the internal control report is expected to lead to an increase to the fees paid to the audit firm. One would expect a negative relationship between RICR and AF since the numerous restatements to the internal control reports from top management internally would contribute to the better quality of controls and, as a result, to the company being safeguarded against risks that could negatively impact on the quality, accuracy and the true and fair view provided by its published financial statements. Even though one could argue that the increased number of RICR would relieve auditors risk through the elimination of the possibility for the need for restatements of financial statements, decreasing in such a way auditors' effort resulting into lower audit fees.

Acknowledging the existence of risks after a number of restatements to the internal controls report, it is expected that an organization will have made significant improvements to their elimination, which will have a material effect on its financial statements. Restatements of internal control report would have a favorable impact not only on statutory audits, but also on other types of assurance services offered by an audit firm providing in this way additional reassurance that the company under audit is likely to have taken effective and efficient controls over the risks related to the preparation of its financial statements. Consequently, the above situation would lead to decreased expenses by the audit firm to perform the particular audit, less personnel devoted to the audit process, less time needed to perform the audit and, most importantly, fewer procedures to be thoroughly re-audited. The restatement of internal controls report would eliminate auditors' perceived risk, making the external audit firm more confident about the internal control system in place, on which it could construct its audit opinion. Following the above rationale, the numerous restatements of their internal controls reports would inevitably result in less audit fees paid by financial institutions. Besides, weak internal controls would increase the possibility of financial statement restatements (Muramiya and Takada, 2010).

Finally, it is worth mentioning that the statistical significance at 1% level of intercept (C) strengthens the robustness of our regression analysis.

4.2. Multiple regression analysis for pre-crisis period (2004-2007) and all 300 financial institutions

Our second regression focuses on the pre-crisis period (2004-2007) and revealed a significant relationship between FE and BV with AF.

Table 4. Multiple regression analysis – pre crisis period (2004-2007)

Variables	Value	Standard error	t	Pr > |t|
Firms' Earnings	0,003	0,000	11,777	< 0,0001 (***)
Firms' Book Value ($)	-0,005	0,000	-10,682	< 0,0001 (***)

*Note: *** - significance at 1%, R²=67,70%*

The discussion of the findings is divided into two sub-parts; one that presents the relationship between FE and AF and the second between BV and AF.

4.2.1. Firm's earnings and audit fees

Table 4 provides evidence that FE is positively related to AF at 1% statistical significance indicating that when the earnings of the financial institution increase, the tendency for the audit firm to charge additional fees for its services increases too. Considering that earnings relate to the liquidity of a financial institution, in case of their increase, an audit firm is more inclined to adopt a premium pricing policy by increasing the remuneration charged. Moreover, a common business practice for audit firms is to charge a percentage of revenues (or even profits) for their services. Elaborating on the relationship from this perspective, increased

earnings increase the possibility for (increased) profits, which in turn increases audit fees received by the audit firm. From the audit firm's perspective, in case of increased earnings of a financial institution, the audit firm could decide to follow a premium pricing policy to earn more from the particular client charging a premium. On the other hand, in the case of lower earnings, the financial institution would be prone to adopt advanced earnings management practices that would hinder liquidity. However, earnings management practices from a financial institution such as a bank has been criticized due to the fact that may make auditors economically reliant on those fees and allow clients flexibility in reporting earnings, negatively impacting on quality of audit (Muzatko and Teclezion, 2016; Garefalakis et al., 2017; Dimitras et al., 2017).

Building on the above rationale and considering that earnings relate to the tax expense for the fiscal year, a financial institution would be inclined to manipulate earnings through earnings management practices achieving its preferred taxation policy too. In other words, earnings management could be used to manipulate taxation meeting at the same time the desired dividend policy for shareholders. Endless pressure from shareholders for earnings, profits and distribution of dividends are continuous threats in an auditor's mind, which increase the risk that a financial institution would be prone to manipulate its financial statements, handling its increased earnings in such a way to meet the desired dividend policy that is aligned with the strategic targets for the future, but requires excessive capital investment. The above situation increases the need to audit for creative accounting practices which requires advanced skills from the side of auditors, additional resources and usually is associated with additional time to audit financial statements that the auditor perceives as risky towards the accuracy and true and fair view of recorded earnings. All the above is associated with additional audit effort and, inevitably, lead to increased audit fees.

4.2.2. Firm's book value and audit fees

Our regression analysis revealed a negative relationship between firm's BV and AF at 1% statistical significance providing evidence that the lower the BV of the entity, the higher the AF charged by the audit firm. Utilising BV as a risk indicator, it could help us to explain and justify the above mentioned negative relationship. First of all, BV in the financial statements of a financial institution reflects loans, warranties, and other long terms assets, which sketch the business risk of the entity. Recalling the socioeconomic characteristics and business practices back in 2004-2007 before the burst of global economic crisis, high BV of a company -and especially of a financial institution- would provide additional assurance to the auditor for the viability and go on the concern of the institution eliminating at the same time audit risk. As a result, the auditor would not be inclined to proceed with the formation of extensive audit plans for the financial statements making the audit firm more resilient to accept lower audit fees.

Another explanation for the negative relationship could be marketing decisions from the side of the audit firm. Audit fees could be used as a marketing tool to attract financial institutions to their clientele, growing in this way their market share. In case of financial institutions with low BV were not part of the target group that the audit firm would like to attract, the latter could follow a premium pricing policy charging excessive fees to audit their financial statements aiming to demotivate them. In such case, low BV financial institutions are regarded as "low-value customers" in marketing strategy terms, to which the audit firm would be unwilling to attract and devote time and effort to audit their financial statements. Seeing the relationship from the opposite side, in case of a high BV client, the auditor would be willing to charge the institution a lower fee in order to attract it and include it to its clientele.

4.3. Multiple regression analysis for the during-crisis period (2008-2010) and all 300 financial institutions

In this part, we present our findings for the period during the crisis, which covers the period 2008-2010. What we can infer from Table 5 is that FE and BV are again signed with the analysis of AF. However, the regression revealed the complete opposite results compared to the ones for the period before the crisis.

Table 5. Multiple regression analysis – During the Crisis Period (2008-2010)

Variables	*Value*	*Standard error*	*t*	*Pr > |t|*
Firms' Earnings	-0,497	0.5532	10,577	< 0,0001 (***)
Firms' Book Value ($)	+0,005	0,000	9.652	< 0,0001 (***)

*Note: *** - significance at 1%, R^2=67,70%*

For the period during the crisis (i.e. 2008-2010) the results moved to the opposite direction compared to what we found for the pre-crisis period (2004-2007). A decrease in FE is associated with increased AF with the strong negative relationship at 1% significance level. Socioeconomic changes as a result of the global crisis of 2007-2008 severely impacted on the banking sector worldwide. What is worth mentioning is that during the pre-crisis period, earnings risk originated from within the financial institution partially through earnings management practices as discussed earlier, whereas during the crisis it seems that risk associated with FE stems from the external environment and is mainly triggered by the audit firms. A reduction to an entity's earnings would be a material element to the audit firm relative to the institution's risk. Bearing in mind the catastrophic impact of the crisis to numerous entities of the financial sector, a reduction to reported earnings would be a qualifying factor for the audit firm to design an extensive audit plan and proceed with in-depth audits to the financial statements. On top of the above, the revised SOX Section 404 required additional audit effort in order to assess internal controls. The end result of the above would be again the need for additional resources and time to fulfill, which

increase the expense for audit fees (Garefalakis and Dimitras, 2016).

Moreover, from Table 5 we infer that the relationship between BV and AF is transformed into positive during the crisis period (i.e. 2008-2010). This is justified by the fact that audit firms realized, due to the crisis, that BV of the financial institution alone is not enough to safeguard the viability of the entity. Hence, higher BV increases audit risk as seen by the auditors. Increases in the BV of financial institutions would make audit firms rather skeptical and would lead them to decide upon an audit plan with extensive audit procedures and in-depth analysis of financial statements. This situation will again lead to additional required resources and more audit time inevitably resulting in higher AF. The burst of the financial crisis in the years of 2007-2008 was a serious alarm to the audit firms, especially those with customers in the banking and the wider financial institutions sector. The numerous cases of such entities that went bankrupt, even though they possessed assets of significant value, was an important indication that BV might not have been enough to eliminate the audit risk. Consequently, audit firms were more skeptical about the quality of information recorded to the financial statements, designing more in-depth audits, which in turn increased AF. The effect of audit in financial institutions provides a positive and robust tendency towards their credibility, which overall adds a great deal of value to the institutions' profile. Such a strong profile presented not only to investors (existing or not) but also to shareholders is vital in order to increase institution's credibility and to improve the effectiveness of corporate governance practices followed.

5. CONCLUSIONS

In our research, we discussed the relationship between AF with RICR, FE, and BV as independent variables. Our innovativeness compared to previous studies lies on the fact that we focused on the impact of restatements of internal control reports to the audit fees and not only on these reports per se. The Multiple Regression Analysis revealed differences in findings between the sample that covered the whole period from 2004 to 2010 and the two sub-periods of 2004-2007 and 2008-2010. An important finding is that the variable that was statistically significance for the whole period (RICR), was not significant for the two separate sub-periods. The analysis of data showed that for the period 2004-2010 the RICR had a positive impact on the AF paid to external auditors. It is worth mentioning that the BV was not statistically significant for the particular period at 1% significant level.

On the other hand, the variables that were statistically significant for the sub-periods were not significant for the whole period. Our regression analysis revealed that FE and BV related to AF instead of the RICR. Moreover, comparing the findings between these two sub-periods, we found that for 2004-2007 FE was positively related to AF and BV negatively, whereas for the period during the crisis (i.e. 2008-2010) we found the exact opposite; namely, FE negatively affected AF whereas BV positively.

In addition to the above, a methodological contribution of our research is the selection of a sample, which allowed for comparisons before and during the financial crisis of 2007-2008.

Regarding the managerial implications of both audit firms and financial institutions, the analysis of data revealed that earnings management practices from the side of a financial institution could negatively impact on the perception of risk by an auditing firm, which would, in turn, adjust its audit strategy and the fees charged accordingly. Moreover, audit firms could utilize audit fees as a pricing strategy tool in such a way to attract or demotivate certain target groups based on their reported earnings, book value and restatements of internal control reports.

Our study is not without limitations though. In methodological terms, our database does not have a balance in the number of years that observations belong to; namely, for the period before crisis, we have observations for four years (2004-2007), whereas for during crisis 3 (2008-2010). Also, the database did not provide enough and quality data on accounting figures, which would enrich our analysis on the link between performance measures and audit fees. Moreover, a richer database would provide more observations, which would improve the credibility of results. Also, other statistical approaches could be applied to the analysis of data in order to test our findings for credibility through triangulation of results.

As a way forward for our study, we could find a database with data for the same period of time but from different industries in order to perform a comparison and conclude whether our findings are justified in other sectors of the economy too. It would be also interesting to contrast our findings with data stemming from organisations in the public sector. Such type of organisations may indicate other variables particularly relevant to them, which audit firms could utilize in order to attract them. Relating our findings with the strategy adopted by audits firms and utilizing Porter's five forces as a theoretical background, we could collect qualitative data to explore the strength of bargaining power of audit firms to charge higher audit fees. Also, we could evaluate the size (measured in the form of market capitalisation, the value of assets, the value of debt, etc.) of the firm/institution to the above relationship. Following the work made by André et al. (2016), it would be interesting to collect qualitative data from both parties; namely, audit companies and board of directors to better understand which variables are important to the formation of pricing strategy and audit fees. Finally, we would like to perform the same analysis to the sample of companies for the period after the crisis, which will enable us to compare three phases; namely, before (pre-), during and after the crisis.

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APPENDIX

Table 6. Variables

Variables	*Abbreviations*
Report restates (0=No, 1=Yes) Indicates whether the report is restated	a
Opinion (Separate from Financial Statement Opinion=1, Integrated with Financial Statement Opinion=0) "Indicates whether the auditor's financial statement report is integrated with the attestation report on internal controls over financial reporting."	b
Agrees with Management (Yes=1, Not Disclosed=0) "Indicates whether the auditor (as disclosed in the auditor's attestation report) agreed with management's assessment of internal controls over financial reporting."	c
Effective Internal Controls (Yes=1, No=0) "Indicates whether the auditor or management found the registrant's internal controls over financial reporting to be effective."	d
Internal Control Weakness (Yes=1, No=0) "Indicates that the assessment of internal controls over financial reporting identified material weaknesses. The particular types of weaknesses are listed."	e
Internal Control - Number Weaknesses Identified "Indicates the number of material weaknesses identified"	f
Exemption(s) (No=0, Yes=1) "Indicates exemptions to the assessment of internal controls over financial reporting were identified. The particular exemptions are listed"	g
Audit Fees ($)	h
Non-Audit Fees ($)	i
Total Fees ($)	j
Firms' Stock Price ($)	k
Firms' Market Capitalization ($)	l
Firms' Revenue ($)	m
Firms' Earnings ($)	n
Firms' Book Value ($)	o
Firms' Total Assets ($)	p

Figure 1. Plots

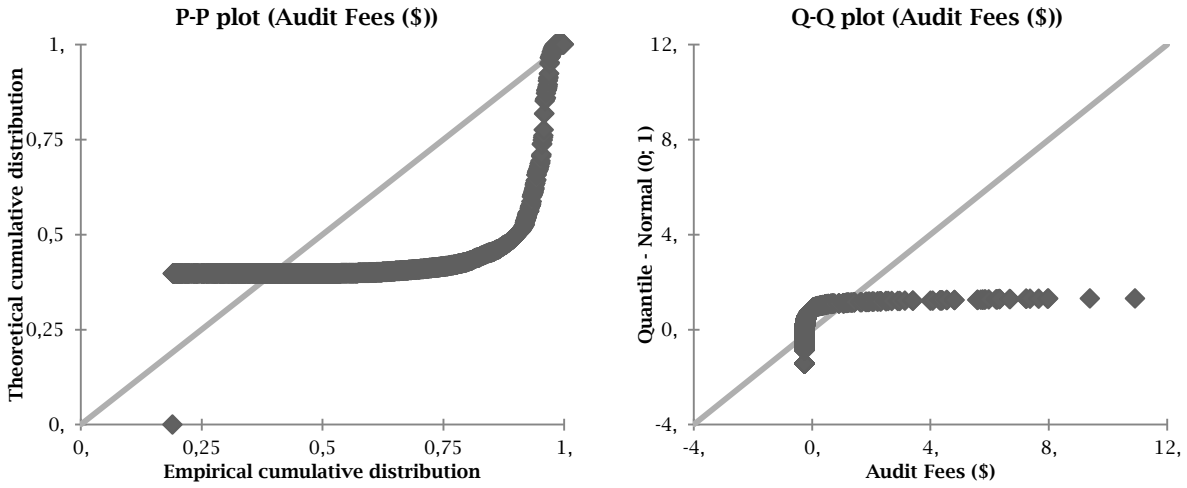

Table 7. Correlation table (quantitative variables). Coefficients of determination (Pearson)

Variables	*k*	*o*	*n*	*h*	*i*	*l*	*p*	*j*	*m*
k	**1**	0,000	0,001	0,002	0,001	0,001	0,002	0,002	0,002
o	0,000	**1**	0,148	0,125	0,248	0,212	0,151	0,209	0,291
n	0,001	0,148	**1**	0,084	0,208	0,504	0,148	0,156	0,305
h	0,002	0,125	0,084	**1**	0,341	0,466	0,764	0,877	0,727
i	0,001	0,248	0,208	0,341	**1**	0,553	0,625	0,691	0,684
l	0,001	0,212	0,504	0,466	0,553	**1**	0,542	0,621	0,735
p	0,002	0,151	0,148	0,764	0,625	0,542	**1**	0,883	0,853
j	0,002	0,209	0,156	0,877	0,691	0,621	0,883	**1**	0,885
m	0,002	0,291	0,305	0,727	0,684	0,735	0,853	0,885	**1**

Figure 2. Correlation maps with variables abbreviations