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EU countries' institutional environment and audit fees

Field of research: EU Banking Sector

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I hereby declare that the work submitted is mine and that where I have made use of another's work; I have attributed the source(s) according to the Regulations set in the Student's Handbook.

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Abstract

This dissertation was written as part of the MSc in Accounting Auditing & Financial Management at the International Hellenic University.

This study designed to examine the factors affecting the level of external audit fees paid by financial institutions to their auditors in European Union. Studies have investigated on market structures for audit services in economies of the USA, UK, Canada and Australia with the common characteristic of continuous exclusion of the financial sector. This study, using measures that are unique and more applicable to banks, in order to fill this area. A standard audit fee model, modified accordingly, is used to investigate the specific effect of measures like bank size, risks and complexities on audit fees for 136 banks. Multiple OLS regression was used as the estimation technique on the panel data collected through databases over a 6-year post consolidation periods covering 2010-2015. Our model reports that the risks examined as important by the regulatory agencies are the same that audit firms consider too. In the future is expected that the concern of the audit process for banks is likely to enhance, following the general attempt of controlling banks' high risk activities.

Keywords: Audit fees; Banking; Regulatory risks, EU

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Preface

This thesis is made as a completion of the master education in Accounting, Auditing and Financial Management. Yours truly has a bachelor degree in Business Administration from University of Macedonia and this thesis is the product of the master period, which is the last part of the Accounting, Auditing and Financial Management at International Hellenic University, in School of Economics, Business Administration and Legal Studies This dissertation is original, unpublished, independent work by the student Konstantia Gkountaropoulou.

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Introduction

Audit and assurance services generally considered an important element for the efficient operation of markets of capital. Companies paid for the external audit services to their auditors and this transaction has interest to both companies and auditors: legislation requires from companies' n to have their financial statements audited with the need of reasonable fees, auditors provide such services and want to ensure that the fees are equivalent to the provided service (Gist, 1992). Besides companies and auditors, generally the shareholders and the public are concerned that the audit fee it is either too high or too low that may affect confidence in the audit opinion. Consequently, the level of audit fees and the way that are determined are important issues to professional accounting bodies to indicate the basis on which audit fees should be determined. In addition, these statements were also outlined to limit auditors from charging their fees in an unethical way associated with the audit profession. Thus, they attempt to enforce auditors' objectivity, and effectiveness.

Meanwhile, the banking sector is globally probably the most sensitive sector in an economy, as a single bank failure may trigger a domino, causing significant turbulence in the entire world with the recent example of Lehman's bankruptcy filing, considered the largest in US history, and have played a major role in the start of the late-2000s global financial crisis. In all economic systems, banks have the major role in planning and carry out financial policy. The difference is found in the type of goals and their way of achievement. Based on the socialistic system bank operations aim at improving the economy and satisfying the social needs, on the other hand neo-liberal model, aim to greater profits by using all means leading to the existing economic situation.

However, to date, most studies in auditing tend to omit from the analysis the banking sector. This is a gap because knowledge of determinants of audit fees should be of interest and importance to suppliers and users of the audit services as well as the regulators, because, this would assist the auditors to examine their cost structure, predicting future fees and measure audit efficiency Firth (1997).

This study would contribute to literature because, it would add to scanty works on determinants of audits fees in the banking sector globally and would also give a vision to pricing of audit in financial industry from European Union. A standard audit fee model, adjusted appropriately, is used to investigate the specific effect of measures like bank size, risks and complexities on audit fees for 136 banks. Multiple OLS regression was used as the estimation technique on the panel data collected through databases over a 6-year post consolidation periods covering 2010-2015.

We find that audit fees are a function of a vector of auditee – specific, auditor – specific and bank specific characteristics. We also reveal that these influences are not always symmetrical across large and smaller banks. More specifically our results are aligned with the existed literature, revealing a positive relationship between fees and the client's size and complexity, and Big 5 auditors. The risk undertaken by the auditor revealed to influence the values of fees in larger and smaller clients differently. In general, there are proxies that affect both small and large banks at a similar level but factors like intangible assets, CAPRATIO and securities seem to work in a different way.

This study would proceed as follows, in section two, the institutional and theoretical background, section three, the literature review, section four, the research methodology of the study and the results of data analysis and in section five, concluding remarks are presented.

Institutional & Theoretical Background

In this chapter is presented a brief recursion to the development of banking sector a recent market analysis and the institutional background with the key legislation provisions for the audit procedure.

Banking Sector

Banking organizations hold almost the 7.1 trillion € of market capitalization in European Union. Banks are a crucial component to the global economy activity in their role as depository institutions and lenders to both corporations and individuals, by drew savings and obtain credit, banks are the oil for the wheels that keep the economy turning. The source of international banking is located 4.000 years ago, when cultures used letters of credit and bills of exchange provided across their boundaries to finance the first forms of trade. In 15th century the word "bank", was used more recently, when bankers from Florence used desks to prepare their transactions.

International banking is a significant component of the global economy as through capital flow it provides liquidity around the world. In 90s was the international banking system was dominated by large institutions of the most developed economies, the United States, Germany, Japan, United Kingdom and Canada. In that period, International banks have proceeded to great changes to face the intensive competition from other financial institutions which led them into riskier fields. The early 2000s were characterized by consolidation of existing banks and entrance into the market from other financial institutions which open fields with higher risk. The main characteristic of 2000s was the association of existing banks and the entrance of other financial instruments into the market. Also, in the beginning of 21st century we faced the technical modernization of the banking system and the great move to internet banking.

The banking system faced many changes in order to reach its' current and known form. Actions like, mergers, acquisitions, takeovers privatization, and other reformations, that had happened in the past, led banks to form their profile. The Canadian

and German banking systems are considered the strongest and all over the world. Canadian banks have long been a byword for stability. Canada has had only two bank failures in almost 100 years, and those from regional banks, and had zero failures during the Great Depression of the 1930s. The German banking system, is separated in three categories of banking activities and is characterized as a bank-based system. Commonly, the competition among the European banks is in extended level because of the privatization. In addition, in order banking activities being controlled and investors' safety being ensured many financial regulations and supervision systems were established. The Late-2000s financial crisis caused significant stress on banks around the world. The collapse of significant banks resulted in government bail-outs. The collapse of Lehman Brothers in September of 2008 led to a general credit doubt and global banking crises. Bank institutions in all countries are considered machines of economic growth. Regardless of the economic relevance of the banks, the level of investigation is rather little on the relationship of banks and their auditors.

The setting of this paper is compatible for several reasons. Firstly, according to Beaver (1996), the setting allows us to extend the general audit fee model into a very rich institutional context. Precisely, most audit and assurance fee studies (e.g., Simunic, 1980; Francis, 1984; Defond et al., 2000; Copley and Douthett, 2002) exclude financial institutions because banks belong to a special category. The fee model of this paper consists of certain measures that are unique to banks, by that offering a structure within bank audit pricing can be analyzed empirically. This analysis is important for several parties of banking and accounting system. First, bank auditors, are subject to extensive regulatory scrutiny, so in the same frame audit fees are likely to be tied to regulatory risks, thus this paper could be useful to accounting firms as they need to evaluate their litigation exposure in this industry. Our investigation is not only interesting to auditors but also to the respective regulatory authorities. Regulatory authorities, extensively rely on external auditors work in order to evaluate the financial condition of banks. Stated differently, if the audit activity fails would endanger both bank shareholders and the public generally to avoidable risks. This paper focus on the above issue

straight by studying relationship between fees that banks pay and their primary regulatory risks.

Finally, in the context of New Basel Capital Accord (issued in 31/05/2001), the need of transparency of banks' financial condition that is directly tied with capital adequacy and market discipline, is increased, and the audit function plays a crucial role offering this transparency. Following the above arguments, it is very important that we tend to build up an insight to the performance and completeness of the bank audit process. Our analysis may be used for further research in the future.

Market Analysis

The European banks industry has declined marginally overall in recent years, attributable mainly to noticeable declines in asset values in 2012 and 2013. It rebounded in 2014 and growth is forecast through to 2019. The European banks industry had total assets of $61,270.3bn in 2014, representing a mixed annual rate of change (CARC) of -0.1% between 2010 and 2014. In comparison, the German and UK industries declined with compound annual rate of change (CARC)s of -1.5% and -2.9% respectively, over the same period, to reach respective values of $10,354.7bn and $11,533.5bn in 2014. A great majority of banks continue to battle with the impact of regulatory restrictions. Recently, a lot of banks have been charged with large fines for regulatory violations. HSBC, Royal Bank of Scotland, and UBS were part of a group of six banks fined a total of £2.6bn ($4.2bn) by UK and US regulators over their traders' attempted manipulation of foreign exchange rates. The bank credit department was the industry's most valuable in 2014, with total assets of $29,449.3bn, corresponding to 48.1% of the industry's complete value. The trading assets sector had assets of $10,778.4bn in 2014, comparable to 17.6% of the industry's accumulated value.

Table 1-Banking Industry Information

Year	$ billion	% Growth
2010	69,395	-
2011	64,231	4,6%
2012	63,208	(1,6%)
2013	60,236	(4,7%)
2014	61,735	1,7%

Institutional Setting

The activities carried out by independent auditors are usually seen as extremely important for the operation of financial and capital markets as far as the role of auditor's concern to provide opinions on accounting information, which play fundamental role to the creation of greater trust and credibility business environments (Newman, Patterson, & Smith, 2005; Ojo, 2008). Auditors for that reason act as intermediaries for financial information. In addition to helping economic agents in more regulated sectors such as banking also provide help to the actions of oversight bodies. The argument behind this notion is that the work of auditors completes the actions of supervisors, in order to help in building the concept of the financial system's health and reliability.

Given the uniqueness of the financial system, in which an institution's failure can create a chain reaction involving other banks and other economic parts, as shown in the 2008 global crisis, the reliability of accounting information is particularly important. The regulatory and supervisory bodies come to fulfill their role which is to protect the financial stability of the system. This role is emphasized, as external auditors are responsible for ratify to the credibility of accounting information.

The Council of Ministers, on 14 April 2014, adopted audit legislation that has been discussed since October 2010. Other provisions included, the legislation enforce mandatory audit firm rotation for the statutory auditors of all Public Interest

European entities, are imposed serious constrains to the non-audit services that can be offered to them by their statutory auditors. The legislation focus on audits of companies with transferable securities of EU and certain organizations operating in the public interest, like banks and insurance companies. The law also concerns EU subsidiaries of companies located outside the EU.

Key provisions of the legislation

- Auditor independence: The law announces obligatory firm rotation for the legal auditor of the company after the primary engagement period of 10 years, apart from joint audits. The legislation present significant new limitations on the non-audit services a PIE can obtain from its auditor, like: consultancy services, services concerning the management or decision-making procedures of the PIE and, services connected to the financing, capital structure and investment strategy of the PIE. Certain of the new EU restrictions go beyond existing international rules under the IESBA Code. Member States can also forbid additional non-audit services with their domestic laws.

- Auditor reporting and audit firm transparency: The law move further and impose new guidelines to auditor's report asking for the statement of the most important risks with a summary of the ways that the auditor would use to face them. In June 2013, the UK Financial Reporting Council (FRC) revised the auditor reporting standard, that is related to audits of financial statements for periods starting on or after 1 October 2012.The FRC standard is commonly subsequent with the IAASB proposal. The legislation authorizes the EC (European Community) to embrace ISAs at the EU level. The above would help increase audit quality and encourage the plan of constant EU-wide audit services. National standards applied in Member States will continue to be applicable if the EC has not adopted the ISAs concerning the same subject.

- Audit committees: The legislation structure many of best practices of existing audit committee, including conditions for:

  - ✓ The independence of most the members
  - ✓ Auditing and/or accounting completeness from at least one member
  - ✓ The audit committee to have competence relevant to the sector in which the company operates.

Moreover, the law defines several duties for audit committees, involving, assigning the auditor and overseeing the company's l reporting situation, and the efficiency of its internal quality control systems. Under the legislation, major responsibility of the audit committee remains the control of all legal audit forms.

- Upholding persistent audit supervision across the EU: EY assists increased alignment among domestic audit regulators to integrate supervision, encourage integrated analysis and decrease the phenomenon of reproduction. The member state level continues to be prevailing concerning the oversight of audit profession in the EU. The Committee of European Auditor Oversight Bodies (CEAOB), will strengthen the cooperation among the members of EU.

- Audit market concentration and systemic risk: While the aim of the legislation may be to expand auditor choice, there is doubt about the variation of firms that are available for the companies to choose thus from the association of compulsory firm rotation and non-audit services constraints. The establishment of mandatory firm rotation is accompanied by more accepted rules to be followed by the audit committee. In addition to the suggesting requirements, the legislation consists of several measures including prohibiting so-called "Big 4 only" to remove difficulties to audit firm growth. The legislation admits the value of the dialogue between auditors and supervisors and describes the already existent communication, by enforcing supervisors and auditors of financial institutions to establish an effective dialogue and share the responsibility. Finally, at least yearly, the European Systemic Risk Board (ESRB) and the new CEAOB must arrange a meeting with the auditors of all international systemically important financial institutions within the EU, in order to inform the ESRB of any significant developments in those institutions.

Literature Review

In this chapter, there is a brief presentation of the already existed literature according the topic of auditing and the most common determinants of audit fees so far.

Starting with the innovating work of Simunic (1980), there were extensive studies analyzing the factors that determine the amount of audit fees in several countries. He created the basic model to explain the association between the amounts paid to their auditors by clients. As years passed, similar studies presented, trying to either support or broaden Simunic's work using this very first model, with modifications, in different settings. Examples of studies in many countries are in the United Kingdom (Taylor and Baker, 1981; Taffler and Ramalinggam, 1982; Chan et al. 1993; Pong and Whittington 1994; in USA (Francis and Simon, 1987; Palmrose, 1986), in Canada (Chung and Lindsay, 1988; Anderson and Zeghal, 1994), in New Zealand (Firth, 1985; Johnson, Walker & Westergaard, 1995), in Australia (Francis, 1984; Francis and Stokes, 1986; Jubb et al. 1996; Craswell and Francis, 1999) and in Japan (Taylor, 1997).Over the last years, several studies have been presented with subject the impact of legal institutions on the quality of accounting information around the world (Ball, Kothari and Robin 2000; Leuz, Nanda and Wysocki 2003; Burgstahler, Hail and Leuz 2006; Bushman and Piotroski 2006; DeFond, Hung and Trezevant 2007). They are located on the analytical framework designed by La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998),

According to earlier research, the elements that affect the amount of fees can be classified into two groups: Auditee characteristics and auditor characteristics. The auditee characteristics have been under extended analysis in earlier papers. They consist of client size (Simunic, 1980) risk (Hogan & Wilkins, 2008) complexity (Ghosh & Lustgarten, 2006) and profitability (Hay, Knechel & Wong, 2006) and the type of industry (Basioudis and Ellwood, 2005). Audit fee models with the first three variables have been proved explanatory, and have shown consequence across different samples (DeFond et al., 2000). The auditor characteristics include auditor tenure (Yidi, 2011) and whether it is one from the Big Four companies (Mansi et al., 2004) as suggested from

previous studies. A classification of two groups is following: The first one related to the audited company and other to the characteristics of the auditor.

Auditee characteristics

- Auditee size: Auditee size is viewed as an important element in defining the audit fees (Hay et al., 2006). In various studies like (Simunic, 1980, 1984; Maher et al., 1992; Francis, 1984; Firth, 1985; Francis and Stokes, 1986; Palmrose, 1996; Simon and Francis, 1988; Taylor and Baker, 1981; Chung and Lindsay, 1988; Chan et al., 1993; Craswell and Francis, 1999; DeFond et al., 2000) this claim has been highlighted. The amount of external audit fee depends on the hours spent by the auditor in order to complete the audit work. In general, we suppose that the larger the company is, the longer the audit process, and thus the higher the audit cost will be. More specifically, big client will have a greater number of transactions, so, demands a more detailed audit process from the auditor, so, the auditor should pay more attention, which leads in higher audit fees (Simunic, 1980; Taylor & Simon, 1999; Meshari, 2008). The balance sheet items depict the company's' size, like, total assets, stocks, debtors, creditors, etc. Size can also be estimated also by the profit and loss account items. The amount of total assets is the most prevalent measure used in previous studies to depict company size (Hay, Knechel & Wong, 2006; Waresul et al., 2012). For this study, we assume that there is a proportional relationship between audit fees and auditee size.

- Auditee Complication: The complication of the company is one more component influencing the amount of audit fees, as auditing process will be affected by the degree of the complication of the audited entity. Accordingly, it stands for that auditee companies with complications are charged with higher audit fees (Simunic, 1980). Various elements can be used to represent the complication of the company. Previous papers (Simunic, 1980; Francis & Simon, 1987; Joshi & Bastaki, 2000; Carson et al., 2004; Gonthier-Besacier & Schatt, 2007; Thinggaard and Kiertzner, 2008) comprised of specific measures of complica-

tion like the amount operating units, and the diversity of product lines. Moreover, there are other two types of complexity: legal and reporting complexity. The first is estimated by number of the company's subsidiaries and affiliates, and the number of countries in which the company operates, and the second, by number of separate audit reports issued annually for the company such as financial statements and separate reports on subsidiaries and affiliates. Generally, the empirical evidence in most cases supports a positive association between audit fees and complexity, thus, we assume that the greater the complexity of the company the higher the audit fees. Maher et al.,1992; Chan et al., 1993; Che Ahmad and Houghton, 1996; Carcello et al., 2002)

- Auditee risk: Audit risk, that indicates the risk connected with implementing an audit procedure is, is hard to measure, as argued by prior research (Chan et al., 1993). If the audit level of audit risk is affected auditor's responsibility, should be also taken into consideration in the calculation of audit fees. This responsibility correlated to the risk involved, accordingly, the more risk involved in the audit work the greater the responsibility which deserves a higher fee of auditor's compensation for taking that risk. A study done by Sun and Liu (2011) indicated that the client with high level of risk will force the external auditors to perform audit procedures efficiently; therefore, financial risk must be combined in audit program to define "red flags" signals that will show opportunities of fraudulent activities. In banks, such indicators can be complex contracts with high-risk borrowers. In addition, Firth (1993) find out that higher level of client risk will increase the auditor effort which result in higher audit fees. Furthermore, Hay and Knechel (2004) found that the claim for auditing is a function of the set of risks faced by stakeholders in an organization and set of control mechanisms available for moderating those risks. We conclude that exist positive association between client's risk and level of audit fees. Auditee risk and Auditee complexity are the two items that compose the term ‘bank regulatory risk.

- Auditee profitability: an important variable that reflect the effectiveness of management performance and with a leading role in determining audit fees. The auditee profitability is depicted in the income or loss figure presented through the income statement. Profitable firms pay more audit fees to their external auditors in the sense that higher profits may require detailed audit testing of the entity for the identification of revenue and expenses which require more audit time (Joshi and Al-Bastaki, 2000). The most common variables used to measure profitability are profitability ratio and a dummy variable for the existence of a loss. Only few researchers (Simon and Francis, 1988; Joshi and Al-Bastaki, 2000; Whisenant et al., 2003) have used profitability in their studies. In summary while the association between client's profitability and the amount of audit fees seems rather obvious there are metrics that can capture market dynamics. At last, we conclude to a positive correlation between the variable of profitability and audit fees.

- Type of Industry: The industry type is another significant variable in calculation of audit fees. Specific industries like banking need different audit work because of their natures. In banking sector, especially in the European Union, things are more peculiar due to the continuous economic crisis that has affected in a great level its operations. Also, this sector is consisted of banks, insurance companies, investment banks, credit unions, thrifts, advisory firms, and credit card issuers, among others, fact that make more complex the examining sector. These industries are subject of different accounting policies. The identification of certain audit areas and analysis of records need specific skills. Previous studies have shown that there is possible association between the level of audit fees and the type of Industry. Gonthier, Besacier and Schatt (2007) found that the level of audit fees paid by French listed firms under the IT sector is higher than that paid by firms belong to other sectors. Hence, manufacturing companies require more auditing procedures which result in higher audit fees than other companies. Nonetheless, unlike industrial firm auditors, the leading bank auditors appear to be incapable to use their market dominance to reclaim this

fee discount. One possible explanation for this finding is that dominant bank auditors price their audits more competitively than they perhaps could with the aim gain access to clients with greater non-audit service needs. The expectation is that variables in the sectors have some significance; however, a specific behavior (positive or negative) is not initially expected.

Auditor's Characteristics

- Auditor size: The size of audit firm is a significant element in the cost of audit services. Many previous studies have shown interest in examining whether audit fees paid to "Big" audit firms are higher than fees paid to "non-Big" firms. Big four audit firms have greater competence due to large-scale operations. Moreover, they have more resources that invest in training their staff, technology and facilities. The reason of studying the audit firm size stems from the assumption that the size depicts the audit quality. Here, it should be noted that, the big audit firms were once known as the "Big Eight", and were reduced to the "Big Six" and then "Big Five" by a series of mergers, and the Big Five became the Big Four after the collapse of Arthur Andersen in 2002, following its connection with the Enron scandal. Some of previous studies claim that there is no association between audit fees and auditor size e.g. the study by Meshari (2008) indicated that the audit firm size ("Big" audit firm vs "non-Big" audit firm) is not statistically influential in determining the amount of audit fees supporting similar studies like, Firth, 1985; Chung and Lindsay, 1988; Brinn et al., 1994. On the other hand, Walid (2012) pointed out that the size of the audit firm is important factor in affecting the amount of external audit fees in Lebanon. Moreover, studies from Palmrose, 1996; Francis and Stokes, 1986; Chan et al., 1993, reporting an evidence of a fee premium paid to "Big" firms. Nowadays, the Big 4 audit firms prevail the audit services market, and consequently, are harder for smaller firms to enter the market of big companies. Moreover, the fee paid to big audit firms may be higher than that of non-big ones, due to the reputation that those companies have. To this point we conclude that the opinions differ as the results from previous research are mixed, so further re-

search of this issue is needed. In this study, will employ audit firm size (Big four as a dummy variable) to measure the auditor size, in order t to find the association with the amount of audit fee.

- Auditor tenure, is also considered as an important variable of determination of audit fees. After the collapse of Enron and WorldCom association between audit quality and auditor tenure has been constantly disputed (e.g., Jackson et al, 2008; Daniels & Booker, 2011). Belen et al., (2014) studied the auditor tenure association with audit quality by using a sample of 254 audits carried out on Spanish state-owned foundations between 2003 and 2010. The results show that audit quality, measured as the possibility that an auditor will give a qualified opinion, increases over the first five years of the relationship and then decreases. Still, Jackson et. al (2008) conclude that audit tenure can increase audit quality. On the other hand, Bedard and Johnstone (2010) reveal a correlation between audit fees and audit tenure of American companies. This study suggests that audit partners contribute more audit effort in the first year of engagement and that a long tenure means thorough knowledge of the client, which leads to a more valuable relationship between the client and the auditor. This variable will not be taken into consideration in this study.

Bank's Characteristics

The above was some of the most common variables used as determinants of the audit fees. Our fee model will be focused on: Liquidity Risk, Operating Risk, Credit Risk, Capital Risk and Market Risk

- Liquidity Risk: the possibility that the bank cannot meet its obligations for cash through the clearing system or from its depositors. Bank liquidity risk is composed by transactions accounts and investment securities. Transactions accounts occur from the basic banking function of providing means of payment to consumers and businesses. Banks with large numbers of transactions accounts automatically have more complex activities that are costly to implement and to control. Transactions accounts include noninterest- earning demand deposit

accounts (DDAs), interest-bearing checking accounts in the form of negotiable order of withdrawal accounts (NOWs), automatic transfer from savings (ATS) accounts, money market deposit accounts (MMDAs), although the number of transactions is limited in these accounts. Banks with a higher percentage of transactions accounts face greater liquidity risk and operational complexity. As result, these banks should have higher audit fees. As far as investment securities are concerned, most bank portfolios contain relatively short-term, liquid instruments with rationally stable, valid values. Fraser et al. (2001) document that about 25% of securities held by commercial banks have maturities of less than one year, and almost 40% have maturities between one and five years.

- Operating Risk: the possibility of high operating costs decreasing the capital account of the bank. Efficiency ratio is a generally used measure of operating risk for banking organizations —defined as the ratio of total operating expense to total revenue (net interest income plus non-interest income). The higher the efficiency ratio is, the lower the efficiency for the bank is and therefore, the more difficult is for the bank to draw a profit and so to boost its capital account. The efficiency ratio could also be considered as a clue for the complexity of bank operations. High efficiency ratios arise from large non-interest expenses relative to revenue generation, like personnel, branches, and data processing expenses. These expenses are proofs of large volumes of transactions accounts and with a geographically dispersed branch system. We anticipate that banks with lower efficiency should have higher audit fees, both due to transaction volume and geographic dispersion that complicate the audit function and create notable operating risk.

- Credit Risk: at first concerns the quality of the bank's assets and the probabilities of default in its loan portfolio, may also exist in the securities portfolio. Credit risk is the main risk faced by most banking organizations around the world. Popular measures of bank credit risk associate with banks loan portfolio synthesis and loan quality. Commercial loans typically include commercial and industrial loans, loans to depository institutions, acceptances issued by other

banks, and obligations (other than securities) of states and political parties, and commercial mortgage and agricultural loans. These loans are made for short-term working capital purposes like financing receivables and inventory, and expanding plant and equipment. Many commercial loans are extended under the broadest sense of credit in which the timing and the amount of the loans are decided by the actions of the borrower. Commercial loans are complex transactions and often suggest significant collaterals. The commercial loan portfolio also lacks transparency, by that measuring and monitoring costs are increasing. One more important element of this type of portfolio is that is increasingly syndicated. For smaller banks, which are the buyers of syndicated loans, the portfolio is remarkably more difficult to evaluate because the buying bank did not implement the primary credit evaluation for the loan. A positive relationship between audit fees and the proportion of commercial loans in an institutions total loan portfolio is expected since banks with more commercial loans are likely to have greater credit risk and less loan portfolio transparency. This relationship carries an importance to banks with large number of non-performing loans and/or deficient loan loss reserves.

The final measure of credit risk is residential mortgage loans. Residential mortgage loans generally concern bank loans secured by 1–4 family residences. Those loans commonly have very low default rates and even if a default occurs, the loss to the bank is usually small. The securitization of those loans has substantially reduced lender's credit risk but here there is a trap. Most residential mortgage loans are packaged as securities and sold to outside investors and engaged to hedging strategies to mitigate the interest rate risk during the time that these loans are held prior to their packaging into portfolios. The related lack of transparency in these hedging strategies proposes that audit effort and audit fees should be proportional to the residential mortgage loans in an institution’s portfolio.

- Capital Risk: refers to the possibility that reduction in the value of assets will decrease the equity account of the bank. Our main measure for capital risk is

the total risk-adjusted capital ratio, defined as the total amount of bank regulatory capital (i.e., common equity, perpetual preferred stock, loan loss reserves, and some types of subordinated debt) divided by risk-weighted assets. Under Basel III, the minimum capital adequacy ratio that banks must maintain is 8%. Here, two opinions have risen. On one hand, regulators expect from banks with higher risk are to maintain larger regulatory capital buffers, in this situation a positive relationship would be expected between the risk-adjusted capital ratio and audit fees. On the other hand, banks with lower levels of risk-adjusted capital are riskier, so we conclude that a negative relationship between risk-adjusted capital and audit fees may arise.

Intangible assets are also used as a proxy for capital risk, with a less direct link than risk-adjusted capital ratio. Bank intangibles typically depict goodwill resulting from mergers and acquisitions. Banks with large amounts of intangible assets is possible to be more complex organizations and may also be viewed as having rather aggressive, due to their acquisition activities. Because goodwill is deducted in the calculation of regulatory capital, banks that are aggressive may impair their capital account. Finally, intangibles include the notions of complexity and capital risk, thus, is expected that banks with high level of intangible assets will have higher audit fees.

Market Risk: is about the potential impact that the negative movement in interest rates will threaten the financial viability of the bank. A sixth measure of bank financial condition was added in 1997, to the CAMEL rating system. This measure 'S' stands for ‘‘Sensitivity’’ that denotes how much bank's profitability, assets and liabilities are sensitive to market changes. The focus is on Interest rate risk that is calculated as interest-sensitive assets minus interest-sensitive liabilities. A positive value means asset sensitive position, a negative one means liability sensitive position and a value of zero shows that the bank is perfectly matched and should experience little change in profit or asset valuation due to interest rate changes. A positive/negative value indicates that banks should increase/decrease their interest rates. The relationship between fees and interest rate sensitivity will depend on a banks exposure at a given point.

Research methodology

In this chapter is presented the plan of the followed research methodology, the included variables, the econometric model, the initial results and the robustness test that has been carried out.

Research methodology applied in this study followed a series of levels: in the first level, were studied the most significant contributions in the subject in the form of the literature; in the second level were determined the theoretical components of the model, and the parameters that will be used; in the third level was used a statistical program for data processing to establish the correlations and co-variations of parameters; in the fourth level, was established a linear model of mathematical regression to measure the amount of fees according to the chosen parameters. The kind of research assigned is the explanatory research with the purpose to investigate the connection between concepts: the influence of several parameters (total assets, net income, efficiency ratio etc.), to the amount of auditor's fees.

The matter that was chosen as the subject of this research is the audit phenomenon which is investigated as it is observed at the level of European Union banks. Concerning the study performed, we aim to interpret the factors that affect the level of audit fees that banks are required to pay and the correlation between them.

Model specification

This study uses an audit fee model consisting of explanatory variables commonly used as key elements of audit fees in prior studies with the addition of some elements believed that can reveal some additional characteristics of audit fees in banking sector. These explanatory variables are included in a cross-sectional audit fee regression model based on fee models employed by prior research.

Data and summary statistics

The sample contains 136 European banks that reported audit fees in 2010-2015 fiscal years. This sample includes 136 banks. Due to the growing similarity among these institutions and for ease of discussion, we refer to all the organizations in the sample as ''banks.'' The followed strategy concerns active banks in the region of European Union, with available account information and an unqualified auditor's opinion given for fiscal years 2010-2015.

Data for our sample of banks were obtained from Banscope and Thomson databases. Selected summary measures are presented in Table 1. Column 1 of Table 1 describes the summary measure and Column 2 presents the name of the associated regression variable. Furthermore, due to the presence of a few very large organizations (e.g., HSBC Holdings Plc, BNP Paribas, Deutsche Bank AG) our emphasis is on median values.

Table 2-Financial Information

Selected summary data for 131 bank holding companies reported audit fees for fiscal years 2010-2015

Variable	Regression Variable	Mean	Median	Min	Max
Audit fee ($ mil)	LOGFEE	7,721	1,325	0,026	128,414
Market value of equity ($ mil)	-	14,586	2,182	-2,694	199
Total assets ($ mil)	LOGASS	252,874	20,362	0,022	2800
Total deposits ($ mil)	-	142,8	17,4	0,032	2700
Net income ($ mil)	-	0,0093	0,053	-18,714	17,932
Std. Dev. of returns (1 year)	STDRET	0,027	0,025	0,006	0,085

Table 2 demonstrates that banks in our sample range in market capitalization from approximately $-2.7 million (National Bank of Greece)) to over $199 million (HSBC Holdings Plc), with a median value of $132 million. Total assets have a median value of approximately $2.1 billion and median year-end deposits are $17.4 million. The median audit fee for the banks in our sample is $1.32 million. Like the other measures, the distribution of net income across our sample banks is wide, ranging from a loss of over $18.7 million to a profit of over $17.9 million. Our measure of general equity risk, the standard deviation of stock returns for one year previous the end of the 2015 fiscal year, is commonly used in the assurance fee literature. The standard deviation of returns for our sample is much lower (median of 2.5%) than that typically documented in studies of IPO firms. This result is not surprising, of course, because established firms, particularly banks, are likely to have lower levels of equity risk than firms that have recently entered the public equity markets.

Table 3-Liquidity Risk Measures

Liquidity Risk Measures					
Variable	**Regression Variable**	**Mean**	**Median**	**Min**	**Max**
Net loans/total assets (%)	NETLASS	54,464	60,431	0,1848	90,975
Securities/total assets	SECURITIES	0,2014	0,187	0,066	0,264

The long-term debt to total assets ratio is roughly 60%, depicting the global banking crisis of last years. As far as the securities to total assets ratio is concerned although a high ratio may indicate some degree of safety from a creditor's viewpoint, excess amounts of cash may be viewed as inefficient. In this situation, the numbers are quite moderate, presented a rather difficult period for banks' liquidity potential

Table 4-Operating Risk Measures

Operating Risk Measures					
Variable	**Regression Variable**	**Mean**	**Median**	**Min**	**Max**
Efficiency ratio	EFFICICENCY	0,674	0,610	0,2963	3,0251

The mean and median values for the efficiency ratio are both approximately 60%, suggesting that for the banks in our sample, roughly 60 cents of every dollar of revenue goes to pay operating expenses. The FDICs Quarterly Banking Profile reported that all banks averaged an efficiency ratio of 57.7% in 2016, so our sample banks appear to be comparable to the industry.

Table 5-Credit Risk Measures

Credit Risk Measures					
Variable	**Regression Variable**	**Mean**	**Median**	**Min**	**Max**
Commercial loans/gross loans	COMMLOAN	0,3914	0,4257	0,2324	0,5369
Non-performing loans/gross loans (%)	NONPERFORM	9,6967	6,412	0,3858	57,534
Net charge-offs/loan loss reserve (%)	NETCHAROFF	29,301	18,422	-535,714	705,556

Mortgage loans/gross loans	MTGLOANS	0,6651	1,934	24,887	0,5532

Table 5 provides information on loan portfolio composition and credit risk. Since the start of the crisis, the distribution of NPL has been highly unequal among Member States, with crisis-hit countries suffering major increases in NPL ratios. At the end of September 2015, the two countries which had to implement strict capital controls, Greece and Cyprus, reported NPL ratio of more than 40%. This is a rather high number by historical standards.

Table 6-Capital Risk Measures

Capital Risk Measures					
Variable	**Regression Variable**	**Mean**	**Median**	**Min**	**Max**
Risk-adjusted capital ratio (%)	CAPRATIO	15,56	15,03	-4,18	40,2
Intangible assets/total assets	INTANG	0,012	0,021	0,008	0,0132

The measures in Table 6 are representative measures for capital risk. For our 236 banks the median risk-adjusted capital ratio is 15.3%. For comparison purposes, the risk-adjusted capital ratio for all banks of Eurozone as of December 31, 2015, was 10.2%. Finally, the ratio of intangible assets reveals the increasing activity of banks during the last years with mean and median of 12% and 21% respectively.

Table 7-Market Risk Measures

Market Risk Measures					
Variable	**Regression Variable**	**Mean**	**Median**	**Min**	**Max**
(Sensitive) Assets-Liabilities	SENSITIVE	0,060	0,039	0,471	0,658

The positive gap, result of subtraction (sensitive) liabilities from assets, indicates that there are more assets than liabilities in the given sample. If interest rates increase, bank's gross profits, the difference between what pays for its liabilities and earns on its assets, will decline (ceteris paribus) because the value of its rate-sensitive liabilities exceeds that of its rate-sensitive assets.

Table 8-Auditors' Information

Audit Firm	**# of Audits**	**% of Audits**	**Median audit fee ($ mil)**	**Median client assets ($ mil)**	**Median Client MVE ($ mil)**
Deloitte & Touche	35	25%	14,8	14,255	1,556
KPMG	34	24%	3,68	26,142	2,552
PricewaterhouseCoopers	32	23%	3,11	27,382	1,280
Ernst & Young	21	15%	10,82	23,690	2,638
Mazars	4	2.7%	0,31	12,340	0,386
All others	10	7.35%	1,8	12,652	2,035

In Table 8 we dissect selected data items by audit firm. This table reveals that for the sample of 136 banks that Deloitte & Touche has the highest audit market share (25%) followed with little difference from KPMG (24%), when market share is defined in terms of the number of institutions audited. Even though Deloitte & Touche is the leading company, as far as median audit fees are concerned, we observe Ernst & Young with market share of 15% charge quite expensive it's services with 10.8 million $ average audit fee. An interesting point can arise from the fact that KPMG and PricewaterhouseCoopers which have similar % of market share and average audit fees have the clients with the higher average assets with approximately 26 and 27 million $ respectively while Deloitte & Touche has average clients' assets of 14 million $. It is also interesting to note that 7.35% of the banks, in our sample, that constitutes the 12.6 million of average total assets, were audited by non-Big 4 accounting firms. Finally, concerning equity, Ernst & Young and KPMG are the companies with the higher clients' equity, besides the fact that the latter has almost 10% fewer clients than the first one. Notable can be the fact that PricewaterhouseCoopers clients' equity is smaller than the equity of the sum of the smaller auditing firms.

Fee model and outcomes

Fee model

The model comes from elements generally used in the audit literature. The regression comprises of audit fees, elements concerning firm size, complexity and risk. The form of the model is as follows:

Econometric Approach

We estimate the econometric model in cross section (with a time dimension of 6 years), the form of the model is as follows:

$$LOGFEEj=\alpha_0+\alpha_1 LOGASSj+\alpha_2 BIG5j+\alpha_3 STDRETj$$

$$+\alpha_4 NETLASS+\alpha_5 SECURITIESj+\alpha_6 EFFICIENCYj$$

$$+\alpha_7 COMMLOANj+\alpha_8 NONPERFORMj+\alpha_9 CHGOFFj$$

$$+\alpha_{10} MTGLOANj+\alpha_{11} CAPRATIOj+c_{12} INTANGj$$

$$+\alpha_{13} SENSITIVEj+e_j. \qquad (1)$$

α_0 is a constant and e_j represents model remainders.

In the first equation, LOGFEE is the natural logarithm of the audit fee, LOGASS is the natural logarithm of total assets, and BIG5 is a barometer describing whether banks are audited by one of the Big 4 audit firms or not. Taking into consideration previous re-search we suppose the coefficients for LOGASS and BIG5 to be positive. STDRET is proxy for firm risk that often is used in the fee literature. STDRET is the one-year standard deviation of daily stock returns. Previous studies have shown mixed and insignificant results concerning this coefficient. The ratio of net loans/total assets provides a general measure of the long-term financial position of a company, including its ability to meet financial requirements for outstanding loans therefore, α4 should be positive. With respect to our other measure of liquidity risk, securities are liquid assets that are also comparatively easy to value. Thus, audit risk and auditor's effort should be decreasing in SECURITIES. SECURITIES are defined in the regression model as [1 mi-

nus (securities/total assets)]. A positive coefficient shows that banks with lower level of securities to total assets will be charged with higher fees.

When a bank shows great operating efficiency, this lead to lower operating risk which is a sign of successful bank management. It is supposed that banks with lower operating risk are charged with lower audit fees. The other are variables—COMMLOAN, NONPERFORM, CHGOFF, and MTGLOAN—proxy for bank credit risk. As mentioned before the audit fees will increase as those risk increase. CAPRATIO and INTANG are our main measures for capital risk. Higher levels of CAPRATIO make us expect α11 to be positive. Similarly, because more complex, risk-taking banks are likely to have higher relative levels of intangible assets and because goodwill decrease banks regulatory capital, banks with acquisition activity require greater audit effort and have higher capital risks. Therefore, the coefficient for INTANG should be positive.

The final variable is SENSITIVE. Here, we expect a negative relationship between SENSITIVE and audit fees. Because gap measures typically are noisy representations of interest rate risk; thus, we expect the relationship between LOGFEE and SEN-SITIVE to be less strong than the relationship between fees and the other measures of risk and complexity.

Explanatory variables correlation with dependent variable

Correlation analysis is the first step to measure the relationship between the variables and its strength. Correlation coefficients provides a summary of the strength and direction of the linear relationship between two variables. The association between variables can be presented in a scatter plot. Table 9 shows the correlation of explanatory variables with auditing expenses.

Table 9-Variables' Correlations

	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**
1. AF	1.000									
2. TA	0,997	1.000								
3. Big 5	0,352	0,10	1.000							
4. NL/TA	0,034	0.036	-0,060	1.000						
5. Efficiency	0,036	0.047	0,410	0.072	1.000					
6. NPL/GL	-0,112	-0.117	0,390	0.193	-0.045	1.000				
7. ML/GL	-0,047	-0.048	0,130	0.061	0.008	0.55	1.000			
8. RACR	0,082	-0.93	0,221	0.079	0.062	0.178	0.103	1.000		
9. IA/TA	0,060	-0.71	0,270	-0,212	0,791	-0,085	-0,013	-0,043	1.000	
10. SA-L	0,059	0.06	0,300	-0,043	0,014	-0,179	0,069	0,117	0,141	1.000

**. Correlation is significant at the 0.01 level (1-tailed). *. Correlation is significant at the 0.05 level (1-tailed).

Some exploratory observations on the initial correlations are worth displayed: Strong positive correlation between the audit fees and total assets represent the client's size, being in line with initial expectations. In line with the expectation that BIG N firms charge premium fees, the variable BIG N provided a positive but weak correlation; Another observation is the low correlation between variables of net loans to total assets ratio and efficiency ratio. The liquidity risk proxies show negative and weak correlations and don't follow the initial pattern. Finally, the intangible to total assets ratio and the (sensitive) assets-liabilities correlations are positive but at the same time weak

Initial Results

We make a short table reminding the variables and their meaning:

Table 10-Variables' Explanation

LOGFEE	logarithm of audit fee
LOGAS	logarithm of total assets.
BIG5	1 if auditor is a Big 5 accounting firm, 0 otherwise.
STDRET	standard deviation of daily returns for 250 trading days preceding fiscal year-end.
NETLASS	net loans/total assets ratio
SECURITIES	(1)- (total securities/total assets)].
EFFICIENCY	(total operating expenses/total revenue).
COMMLOAN	total commercial and agricultural loans/gross loans.
NONPERFORM	nonperforming loans/gross loans.
CHGOFF	net charge-offs/loan loss reserve.

MTGLOAN	total domestic real estate and home equity loans/gross loans.
CAPRATIO	total risk-adjusted capital ratio.
INTANG	intangible assets/total assets.
SENSITIVE	rate-sensitive assets minus rate-sensitive liabilities

We report the results from the Equation (1) in Table 3. In almost every case the coefficient estimates are both statistically significant and of the expected sign.

Table 11-SPSS Results

Variable	Expected Sign	Coefficient Estimate	t-Statistics
INTERCEPT	+	2.580	
LOGASS	+	0.514	31.57
BIG5	+	0.325	3.98
STDRET	+	0.475	0.17
NETLASS	+	0.006	2.01
SECURITIES	+	0.247	2.56
EFFICICENCY	+	0.241	2.52
COMMLOAN	+	0.005	3.65
NONPERFORM	+	0.004	3.46
NETCHAROFF	+	0.005	1.68
MTGLOANS	+	0.035	2.61
CAPRATIO	+	0.007	0.94
INTANG	+	0.078	1.51
SENSITIVE	-	-0.0006	-0.51
Adjusted R-square	0.94		

The confidence interval 95% has the same significance as for p>t. for instance, with a confidence of 95% (or a threshold of 5%), the coefficient assets ranges within that respective interval. We should keep in mind that at 5% this coefficient is not signifi-

cant, namely it may be equal to 0. As it can be seen, the figure 0 can be found within the confidence interval at 95%, which confirms our previous interpretation.

As previous studies, have shown, fees are higher for large banks in respect of total assets and are also higher if the auditor is a Big 4 firm. It was also found that both of our industry-specific measures of liquidity risk are statistically significant. NETASS is positively related to audit fees, indicating that banks with a high long-term debt to asset ratio, it suggests the business has a rather high degree of risk and suggest more attention from auditors. The positive relationship between audit fees and SECURITIES (1 minus securities/assets), indicating that banks with higher the variable of SECURITIES but in fact less, due to the ratio function, audit firms charging more to audit banks that have less liquid and transparent asset portfolios.

As far as proxies for operating risk, loan complexity and credit risk are concerned, positive relationships and statistical significance were found. More specifically, audit fees are increasing in cases of high efficiency ratio meaning that operating expenses are greater than total revenues. In both commercial loans (COMMLOAN) and residential mortgage loans (MTGLOAN) is observed a similar situation. Both findings are persistent with the argument of Khurana and Kim (2003) that loans involve more audit attention with respect to defining fair value. The coefficient estimates for NONPERFORM and CHGOFF are positive and significant as well, indicating that auditors request more from banks that have lower quality loan portfolios. The importance of these variables in our fee model may be indicative of audit firm concerns regarding potential litigation.

The final three variables in Eq. (1) are CAPRATIO, INTANG, and SENSITIVE. The econometric model reveals a positive, significant relation between the risk-adjust capital ratio (CAPRATIO) and audit fees. This finding indicates that auditors charge higher fees to banks that are required by regulators to maintain higher levels of regulatory capital. The significant positive coefficient estimate for INTANG involves that banks with a history of acquisition activity are charged more by audit firms. Finally, the coefficient estimate for SENSITIVE is not statistically significant; meaning that, auditors

do not appear to price bank market risks. A possible explanation can be that interest rate sensitivity disclosures simply do not sufficiently capture banks market risks.

Summarizing, our findings suggest that audit firms take into consideration factors like liquidity risk, operating risk, credit risk, capital risk, but not market risk as indicated. As mentioned previously those factors included in monitoring systems developed by federal regulatory agencies. The explanatory power of our model is also higher (adjusted r-square 94.7%) than that which typically is reported in the fee literature, implying that the presence of significant regulatory pressures may enhance the association between fees and client-specific risks. Finally, the economic significance of the audit pricing effects arising from these risk factors is material.

Factor analysis of banks risks

In previous section, we defined five primary bank risks considered important for the regulatory bodies. The variables used in the econometric model are proxies for these risks. Table 12 presents the standardized scoring coefficients correlated to each of the five risks claimed in the analysis. We identify the risks as: liquidity, credit, capital, market and operating.

Table 12-SPSS Results with banks' risks

Variable	Liquidity risk	Credit risk	Market risk	Capital risk	Operating risk
NETLASS	0,115	-0,105	0,672	0,065	0,513
SECURITIES	0,046	0,614	0,148	-0,114	0,768
EFFICICENCY	0,145	0,180	0,110	0,236	0.319
COMMLOAN	-0,354	-0,870	0,015	-0,003	0,207
NONPERFORM	-0,027	-0,145	-0.010	0,506	0,480
NETCHAROFF	-0,023	-0,008	0,010	0,487	0,410
MTGLOANS	0,478	-0,006	0,051	-0,039	0.174
CAPRATIO	0,320	-0,422	0,265	0,040	0,366
INTANG	0,060	0.036	-0.004	-0,007	0,305
SENSITIVE	-0,056	0,070	0,545	-0,030	0,472

Table 13-Regression model with risks included

	Coefficient Estimate	t-Statistics
INTERCEPT	4,365	17,84
LOGASS	0,601	31,52
BIG5	0,205	3,01
STDRET	0,364	0,09
LIQUIDITY RISK	-0,004	-0,19
CREDIT RISK	0,124	3,98
MARKET RISK	0,063	2,51
CAPITAL RISK	0,112	3,60
OPERATING RISK	0,085	2,78
Adjusted R-square	0,78	

According to Table 13 liquidity risk is not viewed significantly important to auditors' consideration in the process of charging banks' audit fees. On the other hand, credit, market and capital risk are considered quite essential in the determination of audit fees. As far as operating risk is considered, we discern a moderate relationship with the audit fees decision. Finally, this approach can be viewed as a more general and parsimonious approach to the topic of identifying the audit fee determinants.

Audit fees according banks' size

Table 14-Audit fee model for above-median asset

Variable	Expected Sign	Above-median		Below-median	
		Asset banks	t-Statistics	Asset banks	t- Statistics
INTERCEPT	+	1.7165	2.75	2.8534	3.03
LOGASS	+	0.5784	17.85	0.5127	9.52
BIG5	+	0.3124	3.20	0.2022	3.48
STDRET	+	8.431	1.67	-2.3517	-0.82
NETLASS	+	0.0072	2.59	-0.0001	-0.01
SECURITIES	+	0.2571	0.77	0.5665	2.10
EFFICICENCY	+	0.0058	2.36	0.0079	2.33
COMMLOAN	+	0.0081	3.09	0.0053	1.84
NONPERFORM	+	0.1046	1.55	0.0046	1.44
NETCHAROFF	+	-0.0003	-0.16	0.0033	2.03
MTGLOANS	+	0.0054	2.34	0.0009	0.32
CAPRATIO	+	0.0063	0.72	0.0094	1.50
INTANG	+	0.1026	3.55	0.0505	1.62
SENSITIVE	-	-0.002	-0.95	-0.0005	-0.35
Adjusted R-square	0.87				

Generally large bank holding companies have considerably different risk figures than small banks. This particularity comes from the complex economic profiles and the greater sources of liquidity that larger banks have in contrast with small ones. Literatute has shown that large banks have the ability to function with lower ratios of capital and typically are involved in riskier operations. The size of the institution may affect the pricing policy of banks. In Table 7 are presented results from estimating the fee model individually for ‘‘large’’ and ‘‘small’’ banks. The size distinction is determined by whether the bank has total assets above or below the median level (approximately $20,362 million) for the entire sample.

Table 7 shows the model variables differantiate according banks' assets.For first variables concerning size, audit quality,long term debt to total assets ratio,operating efficiency, and commercial loans, there is evidence that audit fees are priced comparably for both large and small banks. However, several differences have been observed. Mortgage loans and intangible assets affest positively fees at large banks but not at small banks. We assume that these results come from the fact that auditors put greater effort in activities like loan portfolios evaluation and M&A of larger and more complex institutions. With respect to intangible assets this result is connected to the auditors pricing litigation risks that rationally are greater for large banks.The volume of non performing loans (NONPERFORM) is significantly and positively related to audit fees for the large bank subsample, but not for the small bank subsample. This finding is obvious if we consider the much greater scale and complexity in geographical and organizational terms of larger banks.

CAPRATIO is slightly significant ($p < 0,06$) for the small banks rather that large banks. Smaller banks are obligated to have high levels of CAPRATIO and for this reason are charged with higher fees that large banks.Subsequently, several differences are presented concerning liquitidy risk of small and large banks. As far as SECURITIES, are concerned, in small banks are used as a mean of serving their liquitidy needs while this in not happening with large banks Accordingly , the SECURITIES variable possibly is a more suitable measure for liquidity risk for small banks than for large banks.

Concluding remarks

In this chapter are presented the concluding marks that result from the above analysis.

The aim of this paper is to determine which client characteristics are the fundamental factors that affect the pricing of banks' audit fees. In this context were used extensive industry-specific disclosures to test the hypothesis that were developed. This setting is significant for many reasons. Firstly, because it permits us to extent the general audit fee model into a different and greater institutional context and because it give us the ability to explore the degree to which bank audits are priced respectively to national regulatory monitoring systems. Our results demonstrate that audit fees are higher for banks having higher long term debt to total assets ratio, fewer securities as a percentage of total assets, higher efficiency ratios and higher levels of credit risk like mortgage loans. In institutions that have higher risk adjusted capital ratios and more intangible assets, were also observed higher audit fees. As far as regulatory agencies are considered, the areas documented as important by them with respect to fees, are consistent with the findings of this survey.

Moreover it was found that there is no dominating audit firm controls in the banking sector. As a result ,the auditors of topo banks cannot charge a feee premium the top bank auditors cannot ask for larger ammount of fees for their services as in reality are not offer any special services An alternative aspect is that industry leading audit firms may are not interested in gaining an ‘‘audit specialization premium’’ to gain access to clients with greater non-audit service demands. In recent bibliography other services that audit, like consulting are presented to have rapid growth where audit work is often viewed as something of a loss leader. Considerable examples are: General Electric paid KPMG $23.9 million for auditing work and $79.7 million for other services. Meanwhile, J.P. Morgan Chase paid PricewaterhouseCoopers $21.3 million in audit fees, but $84.2 million for additional work.

While significant insights into the variables that determine audit fees at the individual bank and industry level are provided, at the same time are given important policy conclusions. First, accounting firms need to devote satisfactory resources to audits of issues viewed as important by regulators, if not there is a serious possibility of procedure revaluation. The mitigation of extensive litigation risks that exist in the banking industry should be one of the first auditor's concerns in the internal audit function. Moreover, regulators depend heavily on external auditors as they evaluate banks financial condition. Finally, extremely important is believed to be the alignment of processes followed by internal and external auditors in the sake of decreasing costs and general deficiencies. Bank managers suggest that audit committees should encourage such an alignment. An improvement of the relationship between these two functions would potentially benefit both bank shareholders and general the public to the extent that it reduces the probability of loss arising from regulatory action.

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