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Determinants of Audit and Non-Audit Fees Provided by Independent Auditors in Brazil

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ABSTRACT

The aim of the present study is to identify the factors affecting the auditing and consulting expenditures in Brazilian public companies. The current study was motivated by the lack of studies on auditing and consulting expenses in Brazil, whereas this matter has been researched for years in other countries. Data on Brazil are scarce because the disclosure of spending on auditing and consulting services provided by independent auditors only became mandatory in 2009. The disclosure of these data enables the analysis of the drivers of the fees paid by companies for these services. In this study, we only analyzed the expenditures for consultancy services provided by the same auditing firm; that is, we ignored all spending on other consultants. The results indicate that audit fees are positively related to company size, corporate governance quality, and the Big Four status of the auditor. In terms of consulting expenses, there is a positive relationship between company size and Big Four status, but there is no significant relationship with corporate governance.

Keywords: Audit fees. Consulting fees. Corporate governance.

1 INTRODUCTION

According to Shleifer and Vishny (1997), corporate governance relates to the means used to protect corporate investors and allow them to receive a return on their investment. This is aimed at mitigating the agency problems described by Jensen and Meckling (1976) that result from the separation of ownership and control.

The worldwide discussion on corporate governance, including in Brazil, has greatly intensified, leading to the adoption of stricter rules in some countries; in the United States, this was done through the Sarbanes-Oxley (SOX) Act, which was implemented due to landmark cases of manipulation of results, such as the Enron case. Furthermore, some companies started to search more intensely for ways to improve their self-governance systems.

More focus is also being given to external auditing because it functions as a governance mechanism, given that, as stated by Nichols and Smith (1983), the external auditor can ensure that the publicly available accounting information is correct and limit the controlling shareholder's possibilities of manipulating results and expropriating small shareholders, thereby helping to align the interests of the various stakeholders of a company.

Given the asymmetry of information between the company and its stakeholders, understanding the way in which audit fees are determined enables us, according to Gotti, Han, Higgs, and Kang (2011), to infer how auditors, who are entities with access to insider information, analyze the risk and complexity of auditees; these are the two key factors influencing the pricing of services. In addition, the contracting companies themselves must understand the factors affecting the fees that they pay so that they can adopt measures to reduce these costs, which are often not negligible.

However, the external audit only serves the purpose of adequately mitigating agency problems when there is auditor independence. Thus, some authors, including Simunic (1984), fear that hiring auditors for consulting purposes raises issues of independence because it increases the auditors' economic ties with the contracting company.

Antle, Gordon, Narayanamoorthy, and Zhou (2006) reinforce this idea and emphasize that such risk exists even when only the auditing services are used because the auditor may succumb to pressure from the client to adopt inappropriate accounting standards if much of the auditor's income comes from the client. All of these studies on independence must identify the variables affecting audit and consulting fees, which makes it critical to have prior knowledge of those factors and to understand them.

The current study aims to identify the factors that affect the audit and consulting fees in public Brazilian companies, considering that no studies were found that address how both expenses are determined in Brazil. Moreover, Hay, Knechel, and Wong (2006) conclude that the significance of certain variables changes according to each country's characteristics and period of analysis, recommending that models be revised periodically. Therefore, it becomes essential to conduct specific research on Brazilian companies.

A sample of 219 publicly traded companies in Brazil was analyzed to accomplish the proposed goal. Data from 2009 were used because detailed expenses related to auditing and consulting are only available since that year. We only analyzed the expenses on consulting services provided by auditing firms; that is, we ignored any spending on other consultants because the Securities and Exchange Commission of Brazil (Comissão de Valores Mobiliários – CVM) only requires the disclosure of fees for auditing and consulting services provided by independent auditors.

The results suggest that audit and consulting fees are positively related to company size, corporate governance quality, and the Big Four status of the auditor. As previously mentioned, there is no consensus on a "universal" model in the international literature. In general, the results shown here are consistent with those studies.

This study is divided into five sections. The following section introduces the theoretical framework and research hypotheses. Subsequently, we describe the data and employed methodology. The fourth section presents the results, and the final section discusses the study's findings.

2 THEORETICAL FRAMEWORK

The first studies on auditing fees were performed in the 1980s. Francis (1984) argues that a large auditing firm will charge higher fees to deliver high-quality services in a competitive market in which there is a demand for service differentiation. Thus, auditing fees can be used to analyze auditing quality and whether there is a demand for differentiation in the auditing market.

There must be independence for the external audit to achieve its goal of reducing information asymmetries. DeAngelo (1981a) and Watts and Zimmerman (1986) emphasize that auditors must not only be able to detect errors and/or fraud (technical expertise) but must also be willing to report them appropriately (independence).

According to Larcker and Richardson (2004), in-

dependence violations are theoretically more likely to occur if the auditor is financially dependent on a given client, that is, if a substantial part of the auditor's income depends on the client. This is because the auditing firm will be more reluctant to indicate errors in financial statements if it knows that this will significantly jeopardize its future profits.

According to Frankel, Johnson, and Nelson (2002), one of the key issues regarding independence is the selling of non-auditing (or consulting) services by auditing firms. The knowledge gained about the client is thereby used for auditing services or vice versa; for example, prior knowledge about how the company's systems operate generates cost savings and leads to greater ease in offering their products (Antle et al., 2006).

According to Gotti et al. (2011), understanding how auditing service fees are determined is useful not only for studying matters of independence but also for generating indicators related to how auditing firms assess the risk and complexity of the audited companies.

Braunbeck (2010) investigates the determinants of independent auditing quality in Brazil and shows that the deeper the conflict of interest between controlling and minority shareholders is, the lower the quality will be.

In the current study, as in Francis (1984), we modeled auditing and consulting fees according to the various company characteristics that may affect fees, including company size, leverage, governance practices, and auditor quality.

Fees = f (Size, Leverage, Auditor Quality, Governance)

The relationship between company size and auditing and consulting fees should be positive; that is, auditing and consulting firms should charge large companies higher fees because the service is more complex and demands more hours of work relative to services provided to small companies. Palmrose (1986) notes that company size is the key factor in explaining auditing service fees and argues that this result is natural because reviewing the company will require additional effort from the auditing firm. Francis (1984) also relates auditing fees to the total assets of the audited companies.

Whisenant, Sankaraguruswamy, and Raghunandan (2003); Davis, Ricchiute, and Trompeter (1993); and Ashbaugh, Lafond, and Mayhew (2003) also find a positive relationship between company size and auditing expenses. A similar relationship can be expected with regard to consulting, given the increased effort required in many cases, as shown by Antle et al. (2006) and Zaman, Hudaib, and Haniffa (2011). The first hypothesis of the present research is as follows:

- H_1: The larger the company is, the higher the auditing and consulting fees will be.

Arruñada (1997) shows that the higher a company's probability of facing future financial difficulties is, the more independent the auditor will be. Furthermore, it is reasonable to assume that the auditing and consulting effort will be greater for companies with financial difficulties. Given that more highly leveraged companies are more likely to have insolvency issues, the relationship between company leverage and auditing and consulting fees should be positive; that is, auditing and consulting fees should be higher for more highly leveraged companies.

Lu and Sapra (2009) show that companies with higher business risks are associated with auditor conservatism and that increased customer pressure improves auditing quality in this situation. Zaman, Hudaib, and Haniffa (2011) argue that leverage is positively related to audit and consulting fees because leveraged companies require more careful monitoring to protect themselves from financial and market risks. Another possible explanation is that more leveraged companies have a higher risk, which therefore causes the audit and consulting fees to be greater.

Bedard and Johnstone (2004) and Defond, Raghunandan, and Subramanyan (2002), among others, find a positive relation between leverage and audit fees, whereas Chaney, Jeter, and Shivakumar (2004) show a positive relationship between short-term financial risk and auditing expenses. With regard to consulting, Ashbaugh, Lafond, and Mayhew (2003) identify a positive relation between leverage and consulting expenses. The second hypothesis to be tested is as follows:

- H_2: The more leveraged the company is, the greater the auditing and consulting fees will be.

A recurring aspect in the literature is whether being one of the large audit firms (the term Big Four is currently used to identify KPMG, Deloitte, Ernst & Young, and PricewaterhouseCoopers) increases the fees charged for auditing and consulting services. Palmrose (1986) proposes three hypotheses on this matter: (i) fees are proportionately higher because of the market monopoly (or oligopoly in this case) held by the large firms; (ii) a premium is charged due to the higher quality of services provided compared to competitors; and (iii) lower prices are charged because they reflect economies of scale, which cannot be exploited by "small" firms. The article concludes that being a Big Four firm has a positive effect, demonstrating evidence for hypothesis (ii); that is, of a premium being charged for the higher quality of services provided compared to competitors.

DeAngelo (1981b) takes the same perspective and emphasizes that large firms have more to lose in terms of reputation when they make a mistake and, therefore, have an added incentive to do quality work. Other authors also note the existence of the price premium charged by the main auditors (Whisenant, Sankaraguruswamy, and Raghunandan, 2003; Zaman, Hudaib, and Haniffa, 2011). Carson (2009) shows that global auditors charge higher fees.

Similar effects are expected with respect to consulting services because higher quality should lead to higher fees for both services. Ashbaugh, Lafond, and Mayhew (2003) and Defond, Raghunandan, and Subramanyan (2002)

show that companies that hire Big Four firms pay higher consulting fees, but Antle et al. (2006) find no significant results. The third research hypothesis stems directly from this discussion.

- H_3: The larger the auditing and consulting firm is, the higher the fees will be.

Another driver of audit fees is the level of corporate governance. External auditing functions as a governance mechanism because it helps to solve agency problems, which sometimes preclude the alignment of the interests of the shareholders and managers (Jensen and Meckling, 1976). External auditing serves to mitigate agency problems because it contributes to increasing the credibility of financial information through theoretically more accurate and independent analysis to better reflect the operational and financial situation of the company in question. Watts and Zimmerman (1983, 1986) argue that external auditing will reduce agency costs if the market believes in the auditor's expertise and independence.

Companies with good governance practices would be interested in offering more transparency and disclosing more accurate information to investors and, therefore, would hire higher quality auditing services, thereby increasing their expenses. Abbott and Parker (2000) report that companies with good governance systems hire better quality auditors. Zaman, Hudaib, and Haniffa (2011) show that stronger auditing committees generate higher auditing expenses.

A company being listed on the stock exchanges of developed countries (for example, through the American Depositary Receipt – ADR, in the United States) is regarded as indicative of having superior corporate governance (Doidge, Karolyi, and Stulz, 2007). André, Broye, Pong, and Schatt (2010) find evidence that auditing expenses are lower in countries with weak legal and judicial systems, but the companies headquartered in those countries that are also listed in countries with strong legal and judicial systems have higher auditing expenses.

For Brazil, Braunbeck (2010) shows that the larger the agency problem between controlling and minority shareholders is, the lower the auditing quality will be. Considering the role that good governance plays in reducing agency problems, our fourth hypothesis pertains to the positive relationship between auditing fees and quality of governance.

- H_4: The better the corporate governance is, the higher the auditing fees will be.

The relationship between governance and consulting fees is controversial. On the one hand, companies with good governance might decide to employ few consulting services with auditing firms because those services may compromise the hired firm's independence. On the other hand, companies with good governance may spend more on consulting when such services increase the company's efficiency and improve its internal controls.

There is empirical evidence supporting both hypotheses. Abbott and Parker (2000) and Gaynor, Mcdaniel, and Neal (2006) show that companies with strong auditing committees have lower consulting expenses, whereas Zaman, Hudaib, and Haniffa (2011) find that companies with good governance tend to spend more on consulting. As expected, there are discrepancies in the relationship between corporate governance and consulting expenses because there is no consensus that the hiring of consulting services leads to the loss of independence, which is the reason that we did not formulate a hypothesis on this relationship.

Another variable that causes disagreement among scholars is the effect of the price-to-book (P/B) ratio on auditing and consulting expenses. Doidge, Karolyi, and Stulz (2007) show that companies with more growth opportunities tend to adopt stronger corporate governance mechanisms, indicating that the higher the P/B is, the higher the auditing expenses will be, which does not necessarily hold for consulting. Defond, Raghunandan, and Subramanyan (2002) find a positive relationship between P/B and audit fees but find no relationship with consulting expenses. In contrast, Ashbaugh, Lafond, and Mayhew (2003) show a negative relation between P/B and auditing and consulting expenses, whereas Antle et al. (2006) find no significant P/B effect on the fees of such services.

Dickins, Higgs, and Skantz (2008) note that there are several studies using different models and variables to find the drivers of audit and consulting fees but that there is no consensus in their results. Hay, Knechel, and Wong (2006) conclude that the determinants of audit and consulting fees vary according to the characteristics of the country and time period.

In summary, the hypotheses described above may be expressed by the expected signs of the coefficients of equations (shown in the next section and estimated in section 4), as shown in Table 1.

Table 1 *Expected signs for the coefficients of independent variables*

Expected signs of the determinants of audit and consulting fees.		
Independent Variable	**Expected Sign of the Coefficient**	**Hypothesis**
Company size	+	H_1
Company leverage	+	H_2
Audit firm size	+	H_3
Corporate governance	+ (audit) indeterminate (consulting)	H_4
Company value (P/B)	Indeterminate	

3 DATA AND METHODOLOGY

The study population consists of companies that were publicly traded in 2009, totaling 242 companies. The sample, in turn, consists of 219 companies because seven were excluded for not disclosing the amount paid to auditing firms and 16 were excluded because some accounting or market information required for this study was not available. The employed data refer to the end of 2009 because this is when the CVM began demanding that companies disclose their detailed expenditures on auditing services and other services provided by their external auditors.

The accounting and market data came from Economatica, and the data on corporate governance practices and control structure (e.g., listing in Novo Mercado and presence of ADRs) came from the BM&FBovespa stock exchange and from CVM. The first test consisted of dividing the sample into two groups according to auditing and consulting expenses (measured in absolute terms in R$). Subsequently, a parametric test was performed to assess whether there were significant differences between the two groups of companies. As a robustness test we also measured the auditing and consulting expenses in relative terms (as a percentage of earnings before interest, taxes, depreciation, and amortization – EBITDA) and estimated non-parametric tests (Mann-Whitney test) to assess whether there were differences between the two groups[1].

The companies were also divided according to their governance practices (listing in the traditional market *versus* the BM&FBovespa Corporate Governance Levels , and presence of ADRs) to assess the effect of governance on auditing and consulting expenses. Furthermore, a test was conducted to assess whether companies with better governance spend more (or less) than companies with worse governance.

Subsequently, regressions were performed to analyze the determinants of auditing and consulting expenditures. The models were estimated according to the Systemic Generalized Method of Moments (GMM-Sis), introduced by Blundell and Bond (1998), to mitigate the problems related to the endogeneity of the explanatory variables[2]. We estimated models for the sum of auditing and consulting fees as well as for the two expenses separately:

$$Audit = \beta_0 + \beta_1 ADR + \beta_2 CGL + \beta_3 Size + \beta_4 Lev + \beta_5 Big4 + \beta_6 P/B + \varepsilon$$

$$Consul = \beta_0 + \beta_1 ADR + \beta_2 CGL + \beta_3 Size + \beta_4 Lev + \beta_5 Big4 + \beta_6 P/B + \varepsilon$$

$$Fees = \beta_0 + \beta_1 ADR + \beta_2 CGL + \beta_3 Size + \beta_4 Lev + \beta_5 Big4 + \beta_6 P/B + \varepsilon,$$

where *Audit* is the logarithm of external audit fees (in R$), *Consul* is the logarithm of consulting fees (in R$), *Fees* is the logarithm of total expenditure on auditing and consulting services (in R$), *ADR* is a dummy variable that takes the value of one if the company has ADR, *CGL* is a dummy variable that takes the value of one if the company is listed on one of the BM&FBovespa Governance Levels, *Size* is the company size (logarithm of total assets), *Lev* is the leverage of the company (outstanding liabilities/total liabilities), *P/B* is the price-to-book (market value of shares divided by the book value of shares), and *Big4* is a dummy variable that takes the value of one if the auditor is one of the Big Four (KPMG, Deloitte, Ernst & Young and PriceWaterhouseCoopers). Based on the hypotheses presented in the previous section, we expect to find statistically significant coefficients with positive signs for β_1, β_2, β_3, β_4, and β_5. There is no consensus regarding the sign of β_6 in the literature.

Before presenting the results, we show the main limitations of this study. First, we only analyzed one year of data because the disclosure of detailed auditing and consulting expenses only became mandatory in 2009. Second, we only analyzed expenditures on the consultancy services provided by the same auditing firm; that is, we ignored any amount spent on other consultants. Finally, we did not analyze the impact of hiring consultancy services on the independence of the auditing firm.

4 RESULTS

Table 2 shows the descriptive statistics of the variables used in the present study. Auditing expenditures varied widely across companies, ranging from R$ 17,800 to R$ 17.7 million, with an average expenditure of R$ 1.2 million. The consulting expenses were lower (average of R$ 233,700) than the auditing expenses and there are also large differences between companies, ranging from companies that spend nothing on external consultancy to companies with expenditures of R$ 8.8 million.

It is worth noting that the vast majority of companies (73%) from the sample hired Big Four firms. Regarding governance practices, 60% of the companies are listed in the BM&FBovespa Governance Levels , and 11% have ADR.

[1] Because the conclusions of parametric and non-parametric tests are equal and the results of auditing and consulting expenditures in relative terms are similar to expenditures in absolute terms, we chose not to report them due to space restrictions, but they can be obtained from the authors.

[2] Barros, Castro Junior, Da Silveira, and Bergmann (2010) compare different methods of estimation used in empirical research in finance and show that the GMM-Sys estimator is the most appropriate to successfully address different forms of endogeneity.

Table 2 *Descriptive statistics of variables*

Descriptive statistics of all variables used in the study in 2009. The definitions of the variables can be found in section 3					
Variable	**Mean**	**Median**	**St Dev**	**Min**	**Max**
Audit	1,236.34	438.15	2,435.87	17.75	17,735.00
Consul	233.66	0.00	757.36	0.00	8,800.00
CGL	0.60	1.00	0.49	0.00	1.00
ADR	0.11	0.00	0.31	0.00	1.00
Big4	0.73	1.00	0.45	0.00	1.00
Size	6.33	6.26	0.75	4.27	8.85
Lev	58.89	57.40	37.42	2.50	475.90
P/B	3.11	1.80	7.39	-13.50	85.30

Table 3 shows the results of the parametric tests assessing whether there are significant differences between companies with higher and lower auditing and consulting expenses. Companies with higher auditing and consulting expenditures are larger, have better governance practices (CGL and ADR), and hire more Big Four firms.

Table 3 *Audit and consulting fees and company characteristics*

Variable	**Audit Fees**		**Consulting Fees**	
	Companies with Lower Audit Fees	**Companies with Higher Audit Fees**	**Companies with Lower Consulting Fees**	**Companies with Higher Consulting Fees**
Audit	207.14	2,265.54***	745.36	1,727.33***
Consul	55.94	411.39***	0.00	467.33***
CGL	0.44	0.76***	0.47	0.73***
ADR	0.00	0.21***	0.05	0.17***
Big4	0.56	0.90***	0.65	0.81***
Size	5.97	6.70***	6.21	6.45***
Lev	60.28	57.72	63.25	54.66
P/B	2.69	3.52	3.22	3.00

Mean value of variables upon sorting firms according to level of auditing and consulting expenditure. The sample was divided into 2 groups: companies with lower expenses and companies with higher expenses, and a test was conducted to assess whether there is a significant difference between the two groups. The definitions of variables can be found in section 3. ***, **, and * indicate statistically significant differences of 1%, 5%, and 10%, respectively.

Subsequently, the companies were divided according to their governance practices (listed in the traditional market *versus* in the BM&FBovespa Governance Levels[3] and presence of ADRs) to assess the effect of governance on auditing and consulting expenditures. Table 4 presents the results.

Table 4 *Audit and consulting fees and corporate governance*

Variable	**Listed in the BM&FBovespa Governance Levels**		**Listed via ADR**	
	Companies in the Traditional Market	**Companies in the Governance Levels**	**Companies without ADRs**	**Companies with ADRs**
Audit	1,076.63	1,342.41	729.05	5,537.26***
Consul	108.84	316.56***	178.16	704.22***
Big4	0.59	0.82***	0.70	0.96***
Size	6.06	6.52***	6.21	7.41***
Lev	65.52	54.76**	59.07	58.37
P/B	2.73	3.36	3.21	2.27

Mean value of variables upon sorting firms according to the BM&FBovespa Governance Levels and listing of ADRs. The sample was divided into four groups: companies present or absent on the BM&FBovespa Governance Levels and companies with or without ADRs. A test of means was conducted to assess whether there is a significant difference between the groups. The definitions of the variables can be found in section 3. ***, **, and * indicate statistically significant differences of 1%, 5%, and 10%, respectively.

The companies listed in the BM&FBovespa Governance Levels tend to be larger, less leveraged, hire more Big Four firms, and spend more on consulting. However, no significant relationship was found between being listed in the BM&FBovespa Governance Levels and audit fees.

When companies are sorted according to the pre-

[3] Alternatively, the same analyses were performed only taking into account firms in 'Level 2' (Nível 2) and in the 'New Market' (Novo Mercado) because they offer more protection than 'Level 1' (Nível 1), but the results were essentially the same.

sence or absence of ADR, those with superior governance are larger and hire more Big Four firms, with 96% of companies using the services of the "Large" auditors. Unlike the result found for the listing in the BM&FBovespa Governance Levels , there is a significant difference between the groups in terms of auditing expenses. Therefore, companies with ADRs tend to spend more on auditing and consulting. This may demonstrate that the listing requirements in the United States are more stringent than those of the BM&FBovespa Governance Levels and that the high consulting expenditures may be explained in part by the need to meet all of these requirements, even if some services are prohibited by SOX.

Table 5 shows the results of the GMM regressions with audit fees as dependent variable. In agreement with several studies, including Palmrose (1986) and Whisenant, Sankaraguruswamy, and Raghunandan (2003), we find a positive relationship between audit fees and company size, most likely because the larger the company is, the more complex its audit will be.

Table 5 *Regressions of the determinants of audit fees*

Variable	I	II	III	IV
Constant	0.07 (0.93)	1.61 (0.15)	0.13 (0.88)	0.24 (0.75)
ADR	1.34*** (0.00)		1.40*** (0.00)	1.35*** (0.00)
CGL		0.24* (0.10)	0.33** (0.03)	0.22 (0.16)
Size	0.96*** (0.00)	1.23*** (0.00)	0.88*** (0.00)	0.77*** (0.00)
Lev	0.01 (0.38)	0.00 (0.26)	0.00 (0.61)	0.00 (0.81)
P/B	0.02 (0.25)	0.01 (0.28)	0.01 (0.26)	0.00 (0.87)
Big4				0.74*** (0.00)
R^2 adjust	0.52	0.48	0.53	0.58

GMM regressions in which the dependent variable is the auditing fee. The definitions of the variables can be found in section 3. The p-values, adjusted for autocorrelation and heteroscedasticity, are reported in parentheses. ***, **, and * indicate statistical significance at 1%, 5%, and 10%, respectively.

Regarding leverage, there is no statistically significant relation, contradicting the notion that leveraged companies require more accurate monitoring and/or are perceived as more risky and would therefore be charged a higher audit fee (Zaman, Hudaib, and Haniffa, 2011). We also found no significant results for the price-to-book ratio.

When the Big4 variable is included, we find a positive relationship significant at 1%, indicating that companies tend to spend more on auditing when they hire the large firms, which tend to charge more, consistent with DeAngelo (1981b) and Palmrose (1986).

As regards corporate governance indicators, there is a consistent positive effect because both ADR and CGL are statistically significant in almost all regressions, even when both variables are simultaneously included in the models. The auditing results are statistically significant at 1% and those of consulting are significant at 5% and 10% (except in the final model). These results may indicate that companies with good governance practices spend more on auditing because they tend to hire higher quality services in pursuit of greater accuracy in the disclosure of information (Abbott and Parker, 2000; Zaman, Hudaib, and Haniffa, 2011).

Table 6 shows the results of the regressions in which consulting fees were used as the dependent variable. Consistent with the audit fees, we find a positive effect of firm size, which is statistically significant in all regressions, which is in line with the studies of Antle et al. (2006) and Zaman, Hudaib, and Haniffa (2011).

Table 6 *Regressions of the determinants of consulting fees*

Variable	I	II	III	IV
Constant	-1.32 (0.50)	-1.52 (0.53)	-1.52 (0.44)	-2.02 (0.30)
ADR	-0.22 (0.69)		-0.18 (0.75)	-0.32 (0.57)
CGL		0.28 (0.52)	0.27 (0.54)	0.20 (0.65)
Size	1.01*** (0.00)	0.93*** (0.00)	1.00*** (0.00)	1.00*** (0.00)
Lev	0.00 (0.67)	0.00 (0.79)	0.00 (0.19)	0.00 (0.84)
P/B	0.08 (0.23)	0.08 (0.21)	0.02 (0.22)	0.06 (0.35)
Big4				0.56* (0.10)
R^2 adjust	0.17	0.17	0.17	0.18

GMM regressions in which the dependent variable is the consulting fee. The definitions of the variables can be found in section 3. The p-values, adjusted for autocorrelation and heteroscedasticity, are reported in parentheses. ***, **, and * indicate statistical significance at 1%, 5%, and 10%, respectively.

Unlike the case of audit fees, there is no significant relationship between corporate governance and consulting fees. Companies spend more when they hire a Big Four firm. The coefficients of Big4 are more statistically significant for auditing (at 1%) than for consulting (at 10%). This result may indicate that large auditing firms charge more because there is market pressure for auditors with a "seal of quality" to be hired.

Table 7 shows the results of the regressions with total auditing and consulting fees as the dependent variable. The results are similar to those obtained when the two expenses are analyzed separately. There is a positive relationship between total fees and company size, indicating that larger firms tend to pay more for auditing and consulting services than smaller companies. As for corporate governance indicators, companies with ADR spend more on auditing and consulting. Regarding the

listing in the BM&FBovespa Governance Levels , there is a positive relationship with total fees, but the statistical significance is lower than that of ADRs. Companies that hire large auditing and consulting firms pay higher fees.

Table 7 *Regressions of the determinants of audit and consulting fees*

Variable	I	II	III	IV
Constant	-0,28 (0,77)	-1,86** (0,03)	-0,03 (0,98)	0,19 (0,83)
ADR	1,27*** (0,00)		1,33*** (0,00)	1,27*** (0,00)
CGL		0,26 (0,12)	0,35** (0,04)	0,23 (0,17)
Size	1,05*** (0,00)	1,31*** (0,00)	0,96*** (0,00)	0,84*** (0,00)
Lev	0,00 (0,32)	0,00 (0,23)	0,00 (0,52)	0,00 (0,71)
P/B	0,01 (0,32)	0,01 (0,37)	0,01 (0,34)	0,00 (0,95)
Big4				0,80*** (0,00)
R^2 adjust	0,51	0,47	0,52	0,57

GMM regressions in which the dependent variable is the sum of audit and consulting fees. The definitions of the variables are found in section 3. The p-values, adjusted for autocorrelation and heteroscedasticity, are reported in parentheses. ***, **, and * indicate statistical significance at 1%, 5%, and 10%, respectively.

5 CONCLUSIONS

The current study aims to identify the determinants of audit and consulting fees provided by independent auditors in Brazil. We analyzed a total of 219 Brazilian companies listed in 2009, when CVM began requiring firms to disclose their expenditures on auditing and consulting services provided by independent auditors.

The results indicate that companies tend to spend more on auditing than on consulting; in fact, more than half of the companies did not hire consulting services from the independent auditor in 2009. There is a strong positive relationship between company size and audit and consulting fees, and it is likely that the larger the company is, the more complex the tasks involved in any service will be (Palmrose, 1986; Whisenant, Sankaraguruswamy, and Raghunandan, 2003; Antle et al., 2006; Zaman, Hudaib, and Haniffa, 2011).

There is a positive relationship between the quality of governance practices (measured by listing in the BM&FBovespa Governance Levels and ADRs in the United States) and audit fees. Therefore, the results suggest that companies with good governance practices spend more on auditing in the pursuit of higher quality services, most likely because they want to provide information with superior accuracy and reliability to their stakeholders (Abbott and Parker, 2000; Zaman, Hudaib, and Haniffa, 2011). However, this finding does not prevent good governance from reducing the risk perceived by the auditor and, consequently, the charged fees, because the latter effect may occur simultaneously , although weaker than the former (Griffin, Lont, and Sun, 2008). There is no significant relationship between governance and consulting fees, emphasizing that SOX-imposed restrictions are not sufficient to affect the expenses of companies with ADR.

The hiring of a Big Four firm raises audit and consulting fees. Moreover, there is no significant relationship between auditing and consulting expenses, leverage and firm value (price-to-book). The results suggest that auditing and consulting firms consider client size and governance level as the most important factors to determine the fees of their services.

As suggestions for future studies, it would be interesting to conduct a similar analysis with data collected after 2009 to assess audit and consulting fees over time. Moreover, it would be interesting to analyze the determinants and reasons for companies to hire consulting services from the independent auditor. Finally, there should be studies on the effect of hiring consulting services on the independence of the auditing firm.

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