The determinants of non-audit fees in French firms

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\textbf{ABSTRACT}

This study analyzes the determinants of non-audit fees for a sample of 67 French companies belonging to the SBF 120 index during the period 2005-2007. Our attention focused on the influence of shareholder / creditor agency costs - namely debts and investment opportunities. Based on panel regression methodology, our results reveal that the affiliation of the auditor to an international network, the presence of an audit committee, the debt, the size of the company and the closing date have an effect on non-audit fees. However, investment opportunities do not affect the amount of non-audit fees.

\textbf{1. Introduction}

In recent years, corporate scandals have been multiplied and have shaken the business world (Enron and WorldCom in the United States, OneTel in Australia, Parmalat in Italy, Vivendi in France, etc.). Following these scandals, the realization of non-audit services by audit firms has led to an important academic literature. Indeed, the Commission of Financial Market Operations (COB) introduced in 2002 an obligation requiring the disclosure of the amounts of the auditing fees in all documents and / or prospectus filed or registered from 1st January 2003. The Financial Security Law (LSF) required that all companies make information about the amount of each auditor fees available for stockholders. Besides, the European Directive 2006/43/EC requested the disclosure of the amounts of fees in appendices of the social and consolidated statements.
The main objective of these measures is to give investors an overview of the importance of the relationship between the company and its auditors. Indeed, legislators have found that non-audit services put into question the auditors’ independence.

The publication of audit and non-audit fees can provide information about the nature of the relationship between auditor and audited firms as well as auditor’s independence. Thus, the level of non-audit fees becomes an indicator of the degree of independence of auditors. In this regard, auditors, to signal their independence, choose to reduce consulting services conducted with customers for whom they are already in charge of audit services. On the other side, companies may report a higher quality of their financial information by choosing not to use the non-audit services, signalling therefore the independence of their auditors.

Several researchers (Frankel et al., 2002; DeFond et al. 2002; Reynolds et al. 2004; Hay et al., 2006 Ruddock et al., 2006) have benefited from the availability of the amounts of audit fees to study the potential impact of non-audit services on auditors’ independence. However, few studies (Lemaux, 2007) have examined the impact of non-audit fees on the financial performance of the audited company.

In this paper, we will carry out a study of the determinants of non-audit fees to test the hypothesis of a relationship between the financial performance of the audited company and the amount of non-audit fees paid.

The rest of the paper is organized in 4 sections. The first presents an overview of the academic literature on non-audit fees and outlines the hypothesis. The second exposes the research methodology. The third section presents a discussion of our results. The final section concludes.

2. Literature review and hypothesis

The literature on the non-audit fees can be divided on three views. The first one examined the impact of non-audit fees on the added value especially on discretionary accruals (Francis & Ke, 2003; Frankel et al., 2002; Ashbaugh et al., 2003; Reynolds et al., 2004; Lim & Tan, 2008), on the propensity to issue notices of the continuity (Defond et al., 2002), on the conservatism gains (Ruddock et al., 2005), on the real bonds’ estimates (Brandon et al., 2004), on response benefit coefficients (Francis & Ke, 2006) and on the cases of earnings restatements (Kinney et al., 2004), Bloomfield and Shackman (2008). For the most of these studies, the results suggest that non-audit fees appear to have a negative effect on the audit quality (Defond & Francis, 2005).

The second view analyzed the effect of non-audit fees on the auditor’s independence. Mautz and Sharaf (1961) were the first to study this question. Then, many other authors (DeAngelo, 1981; Beck et al., 1988a, 1988b; Magee & Tseng, 1990) show that consulting fees reduce auditors’ independence. Simunic (1984) and Beck et al. (1988a) find that when the same auditor provides audit and consulting services, it can’t be totally independent. Brandon et al. (2004) discuss the effects of the amount of consulting fees on the auditors’ independence imposed by bond market. Her results show that the amount of consulting fees is negatively associated with bond ratings. Firth (2002) find that the provision of "Management Advisory Services" MAS, allows the auditor to acquire a specific skill leading to a higher audit quality.

The third view concentrated on the factors which can explain the non-audit fees. The first factor is the presence of a BIG. While Simunic (1980) and Francis (1984) show that BIG 5 has significantly higher fees than other firms, Francis and Stokes (1986), Simon (1985), Palmrose (1986) and Che-Ahmad Houghton (1996) find opposite results. So, our first hypothesis can be the following:
Hypothesis 1: The presence of a big has an impact on non-audit fees.

The presence of an audit committee can also have an effect on non-audit fees. (Eichenseher et al., 1989) find that the financial market reacts more favourably when a company uses a large audit firm. It also appears that the major audit networks often issue reserves more often than smaller audit firms. As a result, Francis and Wilson (1988), Johnson and Lys (1990) and Firth and Smith (1992) show that companies undergoing high agency costs have a greater tendency to engage in international audit networks. Also, Abbott et al. (2003b) find that the part of consulting fees to total fees decreases in the presence of a fully independent audit committee. They conclude that the role of the audit committee is to control the independence of the auditor by limiting any other non-audit activities. Thus, our second hypothesis can be written as follows:

Hypothesis 2: The presence of an audit committee has a negative impact on non-audit fees.

Another factor mentioned in previous literature is the Debt. Simunic (1980) affirm that the debt which is a measure of the risk of bankruptcy of the client, exposes the auditor to financial risk and reputation. Under these conditions, auditors may provide non-audit missions to help companies to manage their reputation risk. According to Watts and Zimmerman (1986), facing a high level of debt, the company directors encourage their auditors to preserve their accounting image. This should lead to an increase in non-audit fees.

So, our third hypothesis is:

Hypothesis 3: The debt ratio has a positive impact on non-audit fees.

Also, investment opportunities can represent another factor that drives non-audit missions by auditors. Indeed, consulting outside the company can be seen as a way to detect opportunities. In this case, non-audit fees can increase when investment opportunities arise. Thus, our fourth hypothesis can be written as follows:

Hypothesis 4: The investment opportunities have a positive impact on non-audit fees.

The size of the company is also a potentially important determinant of the choice of the external auditor. Most of the empirical studies (Chow, 1982; Copley et al., 1995; Weets, 1999; Abbot & Parker, 2000; Piot, 2001a, 2001b; Fan & Wong, 2002a; Niemi & sundgrem, 2003; Hay & Work, 2004; Lennox, 2004) have shown a positive relationship between this variable and the amount of fees paid by the audited firm. We assume that this relationship is also verified for non-audit fees. Thus, our fifth hypothesis is the following:

Hypothesis 5: The size of the audited company has a positive impact on non-audit fees.

The closing date is also another determinant of non-audit fees. In fact, the audit activity is not linear and stable during the financial year. There is a high concentration of the activity in the first quarter of the calendar year, period of closure of the accounts of the majority of listed companies. In this perspective, a closing date of accounts at December 31 is a sensitive period for auditors where the demand for auditing increases. So, non-audit fees increase. Thus, our sixth hypothesis can be the following:

Hypothesis 6: A closing date equal to 31 December has a positive impact on non-audit fees.

Apart of the factors indicated, the financial performance can determine non-audit fees. According to Tsui et al. (2001) and Goodwin-Stewart and Kent (2006), leaders of successful companies are more
likely to report the quality of information provided by an external audit which is more rigorous hence more expensive. We anticipate a positive relationship between this variable and non-audit fees. Thus, our seventh hypothesis is the following:

**Hypothesis 7:** Financial performance has a positive impact on non-audit fees.

3. Research methodology

3.1. The Sample

The empirical study focuses on French companies belonging to the SBF 120 index during the period 2005-2007. The data were manually collected from annual reports and documents available on the websites of the companies concerned. From 2003, the French listed companies are required to disclose in their annual reports the amount of fees paid to each of the auditors. We excluded banks, insurance and real estate companies because of their particular accounting presentation and their specific regulations as well as audit firms for which some data were missing. This selection procedure has allowed us to retain 67 companies.

3.2. Definition and measurement of the variables

3.2.1. Non-audit fees

We use the natural logarithm of non-audit fees which include non-audit services and other services.

3.2.2. Financial performance of the audited company

We measure the financial performance of the audited company by using the Q of Tobin” which is equal to the sum of Total debt and market value per total assets.

3.2.3. International membership of the auditor

The studies of DeAngelo (1981), Piot (2001), Li Dang (2004) and Thornton et al. (1993) evaluated this variable by referring to the quality of the auditor whether or not he belonged to an international network (Big eight in the eighties which became Big Four today). For the specific needs of our research, we use a dichotomous variable Big / Not Big which takes the value 1 if the firm is audited by at least one Big and 0 otherwise.

3.2.4. The existence of an Audit Committee

We measure this variable by using a binary variable which takes the value 1 if there is an audit Committee and 0 otherwise.

3.2.5. The debt ratio

According to previous empirical studies (Francis & Wilson, 1988; Defond, 1992; Firth & Smith, 1992; Weets, 1999; Abbott & Packer, 2000; Piot, 2001b; Niemi & Sundgren, 2003; Piot, 2001; Yeh & Woidtke, 2005; Minguez-Vera-Martin Ugedo, 2007), we measure shareholders-creditors’ agency costs by using the ratio of total debt per total assets. This should reflect the financial risk of the company.

3.2.6. Rate of earnings growth

According to Kim & Sorensen, 1986, we adopt the rate of earnings growth as a measure of investment opportunities which can be defined as follows:
OI: \{Earnings (n) - Earnings (n-1)\} / Earnings (n)

3.2.7. The size of the company

The academic literature proposed several measures for the size of the company: the logarithm of the book value of the assets of the company (Taylor & Baker, 1981; Firth, 1997), the market capitalization (Frankel et al., 2002; Antle et al., 2002; Ashbaugh et al., 2003) and the natural logarithm of total turnover (Haskins and Williams, 1988, Chan et al., 1993, Geiger & Rama, 2003). In our study, we choose to retain this last measurement.

3.2.8. The Closing date

We measure this variable by using a binary variable which takes the value 1 if the company closes its audited accounts in December and zero if the company closes its accounts at another date. A summary of these variables is presented in Table 1.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of The variables</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nature Variable to explain : the non-audit fees</th>
<th>Code</th>
<th>Definition</th>
<th>measure</th>
<th>Sign</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ln_honorauudit</td>
<td></td>
<td>Consulting fees</td>
<td>Log (Consulting fees)</td>
<td>annual</td>
<td></td>
</tr>
<tr>
<td>Explanatory variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables of interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAUD</td>
<td>Membership</td>
<td>= 1 if the firm is audited</td>
<td>+</td>
<td>annual</td>
<td></td>
</tr>
<tr>
<td>COM AUDIT</td>
<td>the existence of an Audit</td>
<td>= 1 if there Audit</td>
<td>-</td>
<td>annual</td>
<td></td>
</tr>
<tr>
<td>TDTA</td>
<td>the debt ratio</td>
<td>Total debts / total assets</td>
<td>+</td>
<td>Diane base</td>
<td></td>
</tr>
<tr>
<td>Qt</td>
<td>growth rate of earnings</td>
<td>Earnings = ({n} - Earnings + Diane base</td>
<td>+</td>
<td>Diane base</td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tail</td>
<td>the size of the firm</td>
<td>Natural logarithm of total</td>
<td>+</td>
<td>Diane base</td>
<td></td>
</tr>
<tr>
<td>Dec</td>
<td>Closing of accounts</td>
<td>= 1 if the company</td>
<td>+</td>
<td>Diane base</td>
<td></td>
</tr>
</tbody>
</table>

3.3. The theoretical model

To verify the validity of our hypothesis, we consider the following theoretical model:

\[ \text{ln}_\text{honorauudit} = \alpha_0 + \alpha_1 \text{raud}_{it} + \alpha_2 \text{comité-d-audit}_{it} + \alpha_3 \text{tpta}_{it} + \alpha_4 \text{oi}_{it} + \alpha_5 \text{tail}_{it} + \alpha_6 \text{dec}_{it} + \alpha_7 \text{Qt}_{it} + \varepsilon_{it} \]

where:

\text{ln}_\text{honorauudit} : honorarium of “non-audit” of auditors, \text{raud}_{it} : presence or not of BIG, \text{comité-d-audit}_{it} : presence or not of an audit committee, \text{tpta}_{it} : debts, \text{oi}_{it} : investment opportunities, \text{tail}_{it} : size of the audited firm, \text{dec}_{it} : closing accounts, \text{Qt}_{it} : Tobin Q, \text{Qt}_{it} : Tobin Q, \text{Qt}_{it} : Tobin Q, i : represents the firm, t : period of the study, \alpha : coefficients associated to the independent variables and \varepsilon_{it} : error term.

4. Results

4.1. Multicolinearity tests

Firstly, we analyse the independence between the variables using the correlation coefficients given by the Spearman matrix. We retain the critical value of Kervin (0.8) as an indicator of the presence of a multicolinearity problem between variables. We observe that the variables : financial performance of the audited firm “Qt” and debts “tpta” are very correlated with a correlation coefficient of 0.9984. Then, these variables must not be included simultaneously in the same multivariate model.
Table 2
Spearman correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>qt</th>
<th>raud</th>
<th>comité-t</th>
<th>tdtat</th>
<th>oit</th>
<th>taillt</th>
<th>dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>qt</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>raud</td>
<td>-0.1853</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>comité-t</td>
<td>-0.0129</td>
<td>0.5578</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tdtat</td>
<td>0.9984</td>
<td>-0.1865</td>
<td>-0.0142</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>oit</td>
<td>0.1296</td>
<td>0.0538</td>
<td>0.0461</td>
<td>0.1326</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>taillt</td>
<td>0.0096</td>
<td>0.2482</td>
<td>0.2181</td>
<td>0.0206</td>
<td>-0.0209</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>dec</td>
<td>0.1002</td>
<td>-0.0801</td>
<td>-0.1435</td>
<td>0.0937</td>
<td>0.0476</td>
<td>0.2050</td>
<td>1.0000</td>
</tr>
<tr>
<td></td>
<td>0.1736</td>
<td>0.2773</td>
<td>0.0506</td>
<td>0.2036</td>
<td>0.5184</td>
<td>0.0050</td>
<td></td>
</tr>
</tbody>
</table>

Then, we present VIFs and verify that the variables « Qt » and « tdtat » present vifs higher than 3. According to Ding and Stolowy (2003), this signals the presence of a multicolinearity problem between these variables and confirms thus the conclusion given by the Spearman correlation matrix.

Table 3
VIFs of the independent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>qt</th>
<th>raud</th>
<th>comité-t</th>
<th>tdtat</th>
<th>oit</th>
<th>taillt</th>
<th>dec</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIF</td>
<td>505.60</td>
<td>504.25</td>
<td>1.56</td>
<td>1.55</td>
<td>1.52</td>
<td>1.13</td>
<td>1.02</td>
<td>145.23</td>
</tr>
<tr>
<td>1/VIF</td>
<td>0.001978</td>
<td>0.001983</td>
<td>0.640965</td>
<td>0.643091</td>
<td>0.657112</td>
<td>0.887336</td>
<td>0.979221</td>
<td></td>
</tr>
</tbody>
</table>

4.2. Results

To analyse the relationship between the « honorarium of non audit » and the performance of the firm, we consider two models to take into account the multicolinearity problem between the variables (" Qt" et " tdtat"). These models can be written as follows:

Model 1:

\[ \ln_{\text{honoraria}_{it}} = \alpha_0 + \alpha_1 \text{raud}_{it} + \alpha_2 \text{comité-d-audit}_{it} + \alpha_3 \text{oi}_{it} + \alpha_4 \text{taill}_{it} + \alpha_5 \text{dec}_{it} + \alpha_6 \text{Qt}_{it} + \varepsilon_{it} \]

Model 2:

\[ \ln_{\text{honoraria}_{it}} = \alpha_0 + \alpha_1 \text{raud}_{it} + \alpha_2 \text{comité-d-audit}_{it} + \alpha_3 \text{tdt}_{it} + \alpha_4 \text{oi}_{it} + \alpha_5 \text{taill}_{it} + \alpha_6 \text{dec}_{it} + \varepsilon_{it} \]

where:

\[ \ln_{\text{honoraria}_{it}}, \text{Qt}_{it}, \text{raud}_{it}, \text{comité-d-audit}_{it}, \text{tdt}_{it}, \text{oi}_{it}, \text{taill}_{it}, \text{dec}_{it}, i, t, \alpha \text{ and } \varepsilon_{it} \] are the same variables presented above. According to the Hausman test, our model is a fixed effect model. Then, we test the presence of heterosedasticity and autocorrelation problem.

Table 4
Specification tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Chi2 (p-value)</th>
<th>Fisher (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fisher test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hausman test</td>
<td>Chi2(7) = 39.68</td>
<td>P-value = 0.0000</td>
</tr>
<tr>
<td>Breush et Pagan test</td>
<td>chi2(1) = 133.59</td>
<td>P-value = 0.0000</td>
</tr>
<tr>
<td>Wald Modified test</td>
<td>chi2 (62) =19266.47</td>
<td>P-value = 0.0000</td>
</tr>
<tr>
<td>Wooldridge test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F( 1,61) = 17.097</td>
<td>P-value = 0.0001</td>
</tr>
</tbody>
</table>
Based on the test of Breusch and Pagan, we support the presence of heteroscedasticity problem between errors. Also, the test of Wooldridge indicates that we cannot accept the null hypothesis of the absence of autocorrelation between errors. The results of the different specification tests are summarized in the Table 4. The Table 5 below provides the results of the linear regression models.

### Table 5
Linear regression of the determinant of non-audit fees

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
</table>
| SP with "non-audit" fees | $\alpha$  
$-.442129$  
$-.402536$  
$2.372865$  
$-1.117381$  
$-1.111475$  
$-1.117381$  
$.0007691$  
$.4663784$  
$.0014973$  
$.350956$  
$.4975759$  
$.4913372$  
| $\alpha'$    |
| Constant      |  
$R^2$  
$.372865$  
$.117381$  
$.111475$  
$.0007691$  
$.4663784$  
$.0014973$  
$.350956$  
$.4975759$  
$.4913372$  
|  
$-.442129$  
$-.402536$  
$.2372865$  
$.1117381$  
$.1111475$  
$.0007691$  
$.4663784$  
$.0014973$  
$.350956$  
$.4975759$  
|  
$-.442129$  
$-.402536$  
$.2372865$  
$.1117381$  
$.1111475$  
$.0007691$  
$.4663784$  
$.0014973$  
$.350956$  
|  
$-.442129$  
$-.402536$  
$.2372865$  
$.1117381$  
$.1111475$  
$.0007691$  
$.4663784$  
$.0014973$  
$.350956$  
|  
$-.442129$  
$-.402536$  
$.2372865$  
$.1117381$  
$.1111475$  
$.0007691$  
$.4663784$  
$.0014973$  
$.350956$  
|

Wald chi (2) = 3429.41***; R-Squared = 0.6319
Wald chi (2) = 3344.08***; R-Squared = 0.6343
Model 1: we eliminated the variable "tdta"
Model 2: we eliminated the variable "Qt"

* *, ** and *** indicate a significance level of 10%, 5% and 1% respectively.
SP corresponds to the predicted sign

As it appears from the table, the Wald Chi-Square test shows a value of 3429.41 significant at 1% for Model 1 and 3344.08 significant at 1% for the model 2. The results show a high and significant value indicating that the model is significant. This allows us to reject the null hypothesis of nullity of all coefficients $\alpha$. Similarly, the value within, which gives an idea of the share of intra-individual variability of the variable "non-audit fee" explained by those variables, is 63.19% for Model 1 and 63.43% for model 2, which implies a good fit between the groups. Let's start with the membership of the auditor to an international network. The variable “raud” show a significant effect at 10% level on non-audit fees (which is positive for model 1 and negative for model 2). This is due to the self-selection of the auditors. In fact, having at least one BIG 4 among the two co-auditors results in an increase in fees (premium BIG 4).

For the Audit Committee variable, our results show that the presence of an audit committee has a significant effect at 10% level for the two models. For the model 1, we assume that the existence of a substitution between governance mechanisms limits the control effort made by external auditors, and therefore reduces audit fees. However, for the model 2, we assume the hypothesis of a complementarity between governance mechanisms. In this sense, an advanced external audit complements the work of an effective internal audit committee, which results in larger fees.

The debt variable which measures the risk of bankruptcy is significant at the 1% level and indicates a positive effect on non-audit fees. This confirms our third hypothesis. According to Simunic (1980), the debt ratio exposes the auditor to financial and reputational risks. Hence, the auditor has to face these risks by offering consulting services.

The Investment Opportunities variable is not significant. Thus, our fourth hypothesis is rejected.

For the size variable, we report a positive and significant effect at the 1% level. It is mainly large companies that extend their fees to the achievement of the non-audit missions. Also, the closing date of the accounts explains positively and significantly the amount of paid fees. This result confirms our hypothesis that a date equal to December 31 allows auditors to propose higher non-audit fees because at this date firms’ resources are fully employed and therefore auditors require higher non-audit fees.
Finally, the financial performance of the firm is positively correlated at the 1% level with non-audit fees. This result confirms our seventh hypothesis. This can be explained by the transfer of auditors’ responsibilities by performing non-audit services other than audit services.

5. Conclusion

We tried to conduct a study of the determinants of non-audit fees, to test the hypothesis of a relationship between the financial performance of the audited company and the amount of non-audit fees. Our results reveal that the membership of the auditor to an international network, the presence of an audit committee, the debt, the size of the company and the closing date influences the amount of non audit fees. Also, we found that non-audit fees increase when the financial performance of the audited company improves. This is explained by the transfer of the auditors’ competences by performing non audit services other than audit services. However, investment opportunities do not affect the amount of non audit fees.

References


