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Audit pricing and nature of controlling shareholders: Evidence from France

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ABSTRACT

This study examines whether auditors are employed as a monitoring mechanism to mitigate agency problems arising from different types of controlling shareholders. In a context of concentrated ownership and poor investor protection, controlling shareholders can easily expropriate wealth from minority shareholders and profit from private benefits of control. However, this agency conflict has been rarely studied, as the most commonly assumed agency conflict occurs between managers and shareholders. Using an audit fee model derived from Simunic (1980), we study the impact of the nature of controlling shareholders on audit fees in French listed firms. Our results show: (1) a negative relationship between audit fees and government shareholdings; (2) a positive relationship between audit fees and institutional shareholdings; and (3) no relationship between audit fees and family shareholdings. These results illustrate the mixed effects of the nature of ownership on audit fees.

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1. Introduction

Corporate governance studies have mainly focused on agency conflicts between managers and shareholders (named type I agency conflict). However some studies have demonstrated that ownership structures
around the world are more concentrated than previously assumed (Shleifer and Vishny, 1997; La Porta et al., 1999; Denis and McConnell, 2003; Gillan and Starks, 2003). Weaker investor protection gives shareholders incentives to maintain large shareholdings to better control managers (Shleifer and Vishny, 1997). Consequently, in low investor protection countries, such as France, ownership is more concentrated, meaning the type I agency conflict between managers and shareholders is reduced, but agency conflicts between controlling shareholders and minority shareholders (called type II agency conflict) are higher (La Porta et al., 1999).

In this paper, we investigate the influence of the nature of controlling shareholders on audit fees in France. The expropriation risk of minority shareholders is likely to influence the demand for audit services, which is usually measured by audit fees (Whisenant et al., 2003; Hope et al., 2010). Namely, auditing is a monitoring cost that depends on the extent of agency conflicts, in the sense that auditors need to increase the scope of their audit for firms with high agency conflicts because of increased audit risk (inherent and/or audit risk) and auditor business risk (litigation risk) (Khalil et al., 2008). To our best knowledge, very few studies have investigated the type II agency conflict in relation to the audit fees, including Fan and Wong (2005) in East Asia and Khalil et al. (2008) in Canada. But France presents an interesting context for three main reasons: (1) it is a country which has been used as a typical representative of a weak investor protection country (La Porta et al., 1998; Deminor, 2005); (2) listed firms have high ownership concentrations (La Porta et al., 1999; Faccio and Lang, 2002); and (3) there are varying ownership structures as a large proportion of firms are controlled by the state or by families which actively participate in management (Djama and Boutant, 2006; Trébucq, 2007).

However the nature of controlling shareholders is likely to influence the risk of minority expropriation. For instance Villalonga and Amit (2006) assume that families have stronger incentives to expropriate wealth from minority shareholders than widely-held corporations because private benefits of control are not diluted among several independent owners. Several papers call for research (Hay et al., 2006) about the relationship between the nature of ownership and audit fees, especially in a European continental setting where ownership structures are not as homogeneous as in Anglo–Saxon countries (Niemi, 2005).

We therefore investigate the influence of the identity of the controlling shareholder on audit fees using regression analysis of French non-financial listed firms during 2006–2008. Our results present new explanations for previous ambiguous results about the relationship between audit fees and controlling ownership (Niemi, 2005; Hay et al., 2006). First, we show two opposite effects (alignment vs. entrenchment) depending on the nature of ownership (family, institutional, government), while most prior studies assimilate both effects by using the sum of blockholder ownership (Peel and Clatworthy, 2001; Fan and Wong, 2005; Niemi, 2005). Then, while many previous studies assume that institutional investors play a monitoring role in the corporate governance of French listed firms (McConnell and Servaes, 1990; Rajgopal and Venkatachalam, 1997), we find that institutional ownership increases audit fees. We also find a negative relationship between government ownership and audit fees, which demonstrates that state representatives play a monitoring role in the corporate governance of French listed firms, which reduces audit risk and audit fees. Finally, we find no significant relation between family ownership and audit fees which may be explained by the existence of two opposite effects (entrenchment vs. alignment): family firms face less severe type I agency conflict but more severe type II agency conflict. Therefore, audit fees level may depend on the trade-off between the two types of agency conflicts.

We contribute to the existing literature in several ways. First, there is a lack of research on firm ownership as a determinant of audit fees, particularly on the identity of non-managerial controlling shareholders (Niemi, 2005; Hay et al., 2006). Second, this study contributes to the research on corporate governance mechanisms and provides evidence of the monitoring role of bureaucrats in state controlled firms in order to avoid reputational loss. Lastly, this research confirms that institutional investors constrain management to provide assurance that financial information is of high quality via high audit quality.

The paper is organized as follows. The next section (Section 2) provides the theoretical framework and Section 3 develops our hypotheses. Section 4 presents the research design and Section 5 provides the sample selection procedures and descriptive statistics. Regressions results are disclosed in Section 6. Finally, we discuss the results and conclude in Section 7.
2. Theoretical background

2.1. Controlling shareholders and agency conflicts

Holderness (2009) finds that controlling shareholders are present in most listed firms all over the world. Controlling shareholders can be defined as those that have the possibility to select the board of directors (or its majority) or exert pressure on them and influence the future of the firm (Berle and Means, 1932). While concentrated ownership is considered as a substitute for weak investor protection regulation (Shleifer and Vishny, 1997, p. 753), it raises a new concern: minority investor expropriation (La Porta et al., 1998, p. 1151, 2000, p. 4). In weak investor protection countries, controlling shareholders and minority shareholders both have the right to the same dividend per share (Denis and McConnell, 2003). However, the former have private benefits of control and can increase their wealth in consuming additional perquisites to the detriment of outsider shareholders. Consequently, when controlling shareholders have effective control of the firm via a high percentage of ownership, they have incentives to expropriate wealth from minority shareholders (Shleifer and Vishny, 1997), which leads to a higher agency conflict between controlling and minority shareholders, also called type II agency costs. Hence investor protection turns out to be crucial because, in many countries, expropriation of minority shareholders and creditors by the controlling shareholders is extensive (La Porta et al., 2000, p. 4).

Expropriation can take many forms. Insiders can simply steal profits, have excessive compensation or benefit from self-dealing transactions such as selling the output, assets or additional securities in the firm they control to another firm they own at below market prices (Johnson et al., 2000). “Tunnelling” allows controlling shareholders to transfer firm assets and benefits out of the reach of both creditors and minority shareholders (Johnson et al., 2000).

2.2. Auditing and agency conflicts

Since the role of auditing is to enforce the application of proper accounting policies (Francis and Dechun, 2008, p. 157), auditing is part of the corporate governance system (Francis et al., 2003) whose cost has to be born by shareholders as one key component of monitoring costs (Jensen and Meckling, 1976). It is therefore expected that auditors will spend more time, relative to the regular inspection of accounts, to inspect managers’ activities if agency problems are greater, which may lead to higher audit fees.

A large body of audit research has focused on the determinants of audit fees (Hay et al., 2006) since the seminal work of Simunic (1980). This author developed an audit fee model which has become a landmark in audit research. Its starting point is that auditors are jointly liable together with managers for financial information quality vis-à-vis financial statement users. Consequently, Simunic (1980) develops an audit fee model that includes two components: audit effort and risk premium.

\[
\text{AUDFEE} = p * q + E(L)
\]

where AUDFEE is the amount of audit fees, \(p\) the hourly pricing, \(q\) the number of auditing hours, \(E(L)\) is the risk premium, assessing the probability of expected losses.

The model is composed of two components: audit effort and risk premium. The first component \((p * q)\) that represents the audit effort needed is based on the auditor evaluation of two risks. First, the risk that a significant error exists in the financial statements (inherent risk). Second, the risk that the firm’s internal controls do not detect it (control risk). Hence, for a client presenting a higher risk level, the auditor asks for higher fees to cover higher costs (Simunic and Stein, 1996). Therefore, because firms facing opportunistic behavior of insiders (Jensen, 1986) present higher inherent risk and higher control risk (Khalil et al., 2008), auditors charge higher fee premiums. Many previous studies show that auditors consider agency costs, for instance the risk of asset embezzlement, abusive use of perquisites, excessive executive compensation (Gul and Tsui, 1997, 2001; Jensen and Payne, 2005; Khalil et al., 2008).

The second component of Simunic’s model deals with the risk premium. Lyon and Maher (2005) argue that much of the prior literature on auditor’s risk focuses on litigation risk, which is the risk of incurring liability payments and of damaged reputation for the quality of its services (Palmrose, 1986; Francis and Simon, 1987;
Simunic and Stein, 1996; Willenborg, 1999; Venkataraman et al., 2008; Feldmann et al., 2009). All these studies show the importance of the risk premium component in audit fee levels due to the positive relationship between audit fees and litigation risk. First, Lafond and Roychowdhury (2008) assert that agency costs are likely to increase the risk premium and therefore audit fees. As the French context has higher type II agency conflicts, then higher audit fees should be expected (Fan and Wong, 2005). Second, Hope et al. (2010) suggest that in a higher agency cost context, auditors are likely to provide greater effort to prevent misstatement related to moral hazard and adverse selection problems. We assume that higher agency conflicts are likely to increase the two components of audit fees presented in Simunic’s model and therefore increase the total amount of audit fees.

2.3. Audit fees and the nature of ownership

Hay et al. (2006) summarize the large body of audit fee determinants research using a meta-analysis and conclude that the results on the relationship between blockholder ownership and audit fees are mixed. For instance, Chan et al. (1993) find a significant relationship between insider ownership and audit fees for his small firm sub-sample. Firth (1997) finds a non-significant relationship between insider ownership concentration and audit fees on a sample of Norwegian firms. In France, Piot (2001) finds a non-significant relationship between insider ownership and the choice of big audit firms (audit quality). Finally, Niemi (2005) tests Chan et al. (1993) model on Finnish firms and finds a non-significant relationship between audit fees and a measure of combined managerial and non-managerial ownership concentration. This author argues that one explanation for these mixed results is that these studies do not differentiate between managerial and non-managerial ownership concentration, since the two types should have opposite effects on audit fees. Niemi (2005) then improves the explanatory power of his previous model when adding variables considering the type of controlling shareholders. Villalonga and Amit (2006) also suggest that the identity of controlling shareholders is likely to influence minority expropriation risk. Indeed, when the dominant shareholder is a financial institution or a dispersed capital firm, the private benefits of control are shared by all independent owners, which leads to a dilution of the inherent advantage. However, when the dominant shareholder is an individual or a family, the advantage resulting from the expropriation is superior because the benefits are concentrated in the hands of family members. Indeed, families or individuals have stronger motivations to expropriate. This demonstrates the importance of the type of controlling ownership in the production and pricing of an audit. However, there is a gap in the literature on this particular issue despite calls for such research (Hay et al., 2006).

In the following section we develop our hypotheses by distinguishing between three types of controlling owners: family-controlled, institutional-controlled and state-controlled firms.

3. Hypotheses development

3.1. Family ownership

Previous studies show that the most common type of a controlling owner in France is a founding family that usually participates in daily operations of the corporation (La Porta et al., 1999; Faccio and Lang, 2002; Labelle and Schatt, 2005). Hope et al. (2010) argue that it is easier to extract private benefits for major family owners that can strongly influence the board (for instance by choosing its members). The monitoring effectiveness of the board could therefore be impaired when its composition is determined primarily by the CEO’s family. The authors suggest that this situation is likely to increase agency costs when there is a family relation between the CEO and the major shareholder and auditors need to supply more effort.

As previously mentioned, expropriation risk is higher when the controlling shareholder is a family since the private benefits remain within the family. Moreover, families often have voting rights in excess of their cash flow rights (La Porta et al., 1999, p. 26), which increases expropriation risk. Hirigoyen (2002) gives the example of the Marine–Wendel family in France that utilizes financial mechanisms to allocate to the family more voting rights than their regular capital rights.

Other studies document a negative influence of the board dominated by family members. For instance, Ho and Wong (2001) posit the inefficacity of boards dominated by families. Jaggi and Leung (2007) find that the
effectiveness of audit committees is significantly reduced when family members are present on corporate boards, especially when family members dominate the corporate board. These characteristics are likely to increase minority shareholder expropriation risk and consequently the type II agency conflict, which leads to higher audit fees.

However, other arguments suggest the opposite: a negative relationship between family ownership and audit fees. First, in the majority of family controlled firms, family members participate in management (Pochet, 1998; La Porta et al., 1999; Hirigoyen, 2002). Hence, the control of the firm is directly exercised by the major shareholders that have an evident interest in the company. Therefore, the agency conflict between managers and shareholders (type I agency conflict) is reduced in these firms (Pochet, 1998). As suggested before, audit fees are influenced by agency conflicts, therefore, auditors should ask for lower fees when auditing family firms.

Also, family members that are in the top of the company have free access to information about the firm (Chau and Gray, 2002; Hirigoyen, 2002; Pichard-Stamford, 2002). Hence, firms with significant family ownership are likely to have less information asymmetry problems than their counterparts because there is less separation of ownership and control (Ali et al., 2007; Francis et al., 2009). Therefore, there is lower demand for assurance that the financial statements do not include significant errors. Francis et al. (2009) show a negative relationship in France between family ownership and audit quality, measured by the choice of Big four auditing firms. Other research shows that family-owned firms have higher firm value and are associated with higher earnings quality, proxied by lower abnormal accruals, greater earnings informativeness and less persistence of transitory loss components in earnings (Mishra et al., 2001; Lennox, 2005; Dechun, 2006). Hence, auditors spend less audit effort and ask for a lower risk premium for family firms. Following these arguments, we state hypothesis H1 as follows:

H1. Audit fees are negatively associated with family ownership.

3.2. Government ownership

Niemi (2005) asserts that government ownership differs from other forms of ownership. Denis and McConnell (2003, p. 3) posit that “Government ownership represents an interesting hybrid of dispersed and concentrated ownership”. Indeed, the authors claim that although state-owned corporations formally have very concentrated ownership, they ultimately belong to people of the state, and in this regard ultimate ownership is extremely dispersed. Niemi (2005, p. 309) suggests that this situation “creates a more pronounced free-rider problem than in large listed companies with a diffuse ownership structure, where the shareholders have no strong incentive to directly monitor management themselves because each shareholder has only a small investment in the firm”. However, in state controlled firms, the de facto control rights belong to bureaucrats: “These bureaucrats can be thought of as having extremely concentrated control rights, but no significant cash flow rights because the cash flow ownership of state firms is effectively dispersed amongst the taxpayers of the country” (Shleifer and Vishny, 1997, p. 768). Also, Chen et al. (2011) argue that directors who are nominated by the government are easily in the position of controlling every aspect of decision making without proper monitoring. These arguments therefore suggest high audit fees.

However, other arguments suggest lower audit fees. First, government representatives have an incentive to monitor management for reputation purposes. “Reputation signals the quality of a director and its influence outweighs the negative busyness effect” (Chun-An and Chuan-Ying, 2008, p. 134) which contributes to a decrease in firm risk and hence in audit fees. Also, if government representatives fail to monitor management effectively, they may suffer reputation costs. Second, other authors show that government ownership is a mechanism of shareholder protection and can avoid minority expropriation. Using a sample of 634 privatized enterprises listed on Chinese stock exchanges during the period 1994–1998, Sun and Tong (2003, p. 188) show that “being the largest stakeholder of partially privatized state owned enterprises, the government sends a credible signal to the market that it is not expropriating shareholders’ wealth”. This situation could negatively influence audit fees as it decreases the scope of the audit.

Also, using signaling theory, Mok and Hui (1998) find that Chinese firms with high government ownership have higher firm value. The authors argue that high equity retention by the state after the IPO is likely to
decrease the ex-ante uncertainty of domestic investors because investors interpret that as a sign of the government’s confidence in the company and its business model. This situation suggests that these firms have lower business risk and that auditors will therefore spend less effort to audit these firms and ask for lower audit fees. Trien and Chizema (2011) explain the positive relationship between performance and government holdings as the support of these firms by the state. The authors argue that after privatization when a dominant shareholder is the state, it is very likely to provide firms with financial and political support through a “helping hand”. Finally “state owned firms have both the motives and the expertise to monitor managers of listed spin-off firms and to provide strategic advice” (Chen et al., 2009, p. 174). We therefore state the following hypothesis:

**H2.** Audit fees are negatively associated with government ownership.

### 3.3. Institutional ownership

Mitra et al. (2007) suggest that institutional and non-institutional blockholders are likely to have different abilities to monitor firm management because of differences in their analytical and information processing resources. Therefore, the authors argue that “the effect of their monitoring on a firm’s inherent risk or the effect of their demand for high-quality audit coverage may lead to differential relationships between the nature of the blockholder stock ownership and audit fees” (Mitra et al., 2007, p. 266).

Previous studies document that institutional investors are on average better informed than individual investors because of their large-scale development and analysis of timely and valuable firm-specific information. Moreover, in order to satisfy their fiduciary responsibilities, institutional investors are active monitors, which in turn reduces agency costs (McConnell and Servaes, 1990; Rajgopal and Venkatachalam, 1997; Bushee, 1998; Mitra and Cready, 2005). For instance, Rajgopal and Venkatachalam (1997) find a negative relationship between institutional ownership and discretionary accounting behavior (measured by discretionary accruals). The authors conclude that institutional owners constrain managerial discretion by mitigating earnings manipulation. Also Bushee (1998) uses two subsamples (high vs. low institutional ownership firms) and finds that low institutional ownership firms manipulate R&D expenditure to meet short-term earnings goals. He concludes that institutional investors play a monitoring role by reducing management’s discretion. Mitra and Cready (2005) find evidence that institutional stockholders constrain management’s ability to opportunistically manage abnormal accruals in the financial reporting process. Firms with substantial institutional stock ownership exercise less accounting discretion to manage abnormal accruals than firms with low levels of institutional ownership. Consistent with the above notion, Mitra et al. (2007) suggest that institutional blockholders are engaged in the company’s affairs, including the financial accounting and reporting process which is likely to reduce the inherent risk of material misstatements in financial reporting. Hence this low-risk situation leads to lower engagement effort from auditors and a lower risk premium, therefore audit fees should decrease in institutional controlled firms. Consistent with the arguments above (monitoring role of institutional investors), Mitra et al. (2007) find a negative relationship between institutional blockholders and audit fees.

However, other empirical studies investigating institutional monitoring find mixed evidence (Smith, 1996; Wahal, 1996). For instance, Smith (1996) finds no significant change in operating performance for the 51 firms targeted by CalPERS studied over the 1987–93 period. Also, Wahal (1996) find no evidence of significant long-term performance improvement for firms targeted by pension funds.

Moreover other arguments sustain a positive relation between institutional stock ownership and audit fees. Auditors are external parties that verify the quality and reliability of the information provided to shareholders by managers. Therefore, prior research shows that high quality auditing translates into high earnings quality (Becker et al., 1998; Kane and Velury, 2004). For instance, Becker et al. (1998) measure audit quality with Big Six audit/non-Big Six auditors. The authors find that clients of non-Big Six auditors (weak audit) report discretionary accruals that are, on average, 1.5–2.1% of total assets higher than the discretionary accruals reported by clients of Big Six auditors. Because institutional investors demand high quality information, they demand high audit quality. Kane and Velury (2004) find a positive association between institutional ownership and auditor size (as a measure of audit quality) and suggest that institutional investors have a positive influence on audit services. The authors argue that “because earnings information is important for business
valuation purposes, institutional investors demand high quality information” (Kane and Velury, 2004, p. 978). Hence, when institutional investors hold large voting rights, they have the means to successfully encourage management to provide assurance that financial information is of high quality via high audit quality. Finally, Mitra et al. (2007) also suggest that firms may tend to purchase high-quality audit services to create a positive perception about financial reporting quality in order to attract institutional investment, which therefore should increase audit fees. Following these arguments, we state the following hypothesis:

**H3.** Audit fees are positively associated with institutional ownership.

4. Research design

We use the following regression model to test our hypotheses:

\[
\text{LOGFEE} = \beta_0 + \beta_1 \% \text{FAM} + \beta_2 \% \text{GOUV} + \beta_3 \% \text{INST} + \delta_1 \text{LOGASSET} + \delta_2 \text{INTSALE} + \delta_3 \text{INVREC} + \delta_4 \text{LEV} + \delta_5 \text{ROA} + \text{Fixed effects} + \epsilon
\]

where \( \text{LOGFEE} \) is defined by the natural logarithm of audit fees (in K€). All variables are defined in Table 1.

The test variable for **H1** is \%FAM and represents family control of the firm, as proxied by the percentage of shares owned by identified individuals or families with more than 5%. The coefficient on \%FAM (\( \beta_1 \)) thus captures the audit fee discount/premium in the case of family ownership. As **H1** states a negative relationship between audit fees and family ownership, we expect \( \beta_1 \) to be negative.

In a similar way, the test variable for **H2** is \%GOUV and represents state control of the firm, as proxied by the percentage of shares owned by the state with more than 5%. The coefficient on \%GOUV (\( \beta_2 \)) thus captures the audit fee discount/premium in the case of state ownership. As **H2** states a negative relationship between audit fees and state ownership, we expect \( \beta_2 \) to be negative. Finally, the test variable for **H3** is \%INST and represents control of the firm by institutional investors, as proxied by the percentage of shares owned by institutional investors with more than 5%. The coefficient on \%INST (\( \beta_3 \)) thus captures the audit fee premium in the case of institutional ownership. As **H3** is states a positive relationship between audit fees and institutional ownership, we expect \( \beta_3 \) to be positive.

Our audit fee model includes two types of firm specific control variables, which control for: (1) audit costs (size and complexity); and (2) the risk of loss that an audit could face in the future (Simunic, 1980; Francis,

<table>
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<th>Variable</th>
<th>Empirical definition</th>
<th>Data source</th>
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<tr>
<td><strong>Dependent variable and test variables for Firm i in Year t</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>\text{LOGFEE}_i</td>
<td>Natural log of audit fees (in K€)</td>
<td>Worldscope</td>
</tr>
<tr>
<td>\text{FAM}_i</td>
<td>1 If at least one shareholder owning more than 5% of the share rights is an identified individual or family, 0 otherwise.</td>
<td>Thomson</td>
</tr>
<tr>
<td>\text{GOUV}_i</td>
<td>1 If at least one shareholder owning more than 5% of the share rights is a state agency, 0 otherwise.</td>
<td>Thomson</td>
</tr>
<tr>
<td>\text{INST}_i</td>
<td>1 If at least one shareholder owning more than 5% of the share rights is an institutional investor, 0 otherwise.</td>
<td>Thomson</td>
</tr>
<tr>
<td>\text{FAM1}_i</td>
<td>1 If the primary shareholder is an identified individual or family, 0 otherwise.</td>
<td>Thomson</td>
</tr>
<tr>
<td>\text{GOUV1}_i</td>
<td>1 If the primary shareholder is a state agency, 0 otherwise.</td>
<td>Thomson</td>
</tr>
<tr>
<td>\text{INST1}_i</td>
<td>1 If the primary shareholder is an institutional investor, 0 otherwise.</td>
<td>Thomson</td>
</tr>
<tr>
<td>%\text{FAM}_i</td>
<td>% Of shares owned by families with more than 5%.</td>
<td>Thomson</td>
</tr>
<tr>
<td>%\text{GOUV}_i</td>
<td>% Of shares owned by state agencies with more than 5%.</td>
<td>Thomson</td>
</tr>
<tr>
<td>%\text{INST}_i</td>
<td>% Of shares owned by institutional investors with more than 5%.</td>
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<th><strong>Firm-Specific control variables for Firm i in Year t</strong></th>
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<tr>
<td>\text{LOGASSET}_i</td>
<td>Natural log of total assets (in K€)</td>
<td>Worldscope</td>
</tr>
<tr>
<td>\text{LEV}_i</td>
<td>The ratio of year-end total debt to total assets</td>
<td>Worldscope</td>
</tr>
<tr>
<td>\text{INVEC}_i</td>
<td>The sum of inventories and receivables divided by total sales</td>
<td>Worldscope</td>
</tr>
<tr>
<td>\text{INTSALE}_i</td>
<td>Foreign sales divided by total sales</td>
<td>Worldscope</td>
</tr>
<tr>
<td>\text{ROA}_i</td>
<td>Return on assets</td>
<td>Worldscope</td>
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Audit cost is estimated by LOGASSET which proxies for client size, and two variables which proxy for client complexity: INVREC and INTSALE. Similar to Simunic (1980) and Choi et al. (2009), we include LEV and ROA to measure client-specific litigation risk potentially borne by auditors. As client size, client complexity and client-specific risks should be positively related to audit fees, we expect all the coefficients from $\delta_1$ to $\delta_4$ to be positive and $\delta_5$ to be negative. Finally, our model also includes fixed year effects and an error term ($\varepsilon$).

5. Sample

5.1. Data collection

Our sample is initially composed of all listed firms on the SBF 250 French index, meaning 244 firms over the period 2006–2008. The French auditing context is characterized by (1) a mandatory joint audit for all listed firms and all firms reporting consolidated financial statements; (2) the prohibition of non-audit service provision for statutory auditors; and (3) a 6 year-tenure. These institutional characteristics are aimed at improving auditor’s independence by reducing the economic bondage between the client and its auditors.

Audit fee data and financial data are collected from Worldscope and ownership data is collected from Thomson. We exclude 33 financial institutions (Standard Industrial Classification [SIC] 6000–6999) and observations with missing financial data from Worldscope. All continuous dependent variables are winsorized at the 1st percentile. We finally obtained a sample of 476 firm-year observations (hereafter named firm observations for ease of notation).

5.2. Descriptive statistics

Table 2 presents descriptive statistics of the dependent and independent variables.

According to Table 2, Panel A average audit fees are 5.09 M€ (median: 1.30) over the period (2006–2008). This average amount is consistent with previous literature (mean: 4.45 M€ (median: 1.38 M€) for Gonthier-Besacier and Schatt (2007) on the SBF 250 index in 2002, and mean: 4.8 M€ for Broye (2009) on the Eurolist in 2005). We observe a wide diversity with a minimum of 0.02 M€ and a maximum of 52.50 M€. Table 2, Panel B presents the time evolution of audit fees over the period. We report the audit fees scaled by total sales (FEE-PCT) to control for the size effect which is the first driver of audit fees (Hay et al., 2006). On average, audit fees represent 0.18% of sales across the period, with significant annual variations from 0.16% in 2006 to 0.19% in 2008.

Control variables display a large range, which illustrates the great diversity of the firms selected in our sample. For instance, the leverage ratio has a minimum of 0.1% and a maximum of 64.8%, with a mean of 24.1%, and ROA has a minimum of $-22.5\%$ and a maximum of 25.9%, with a mean of 6.2%.

Table 3 details the sample according to the nature of the shareholders.

We use two dummy variables: the nature of the controlling shareholder owning more than 5% of the capital shares and the nature of the first shareholder. If we take the first (second) definition, we observe that our sample includes 38.4% (34.0%) family firms, 6.1% (5.7%) state controlled firms and 42.6% (19.7%) firms controlled by institutional investors (funds, banks, insurance companies, etc.). Both measures report similar results: family and state shareholders are mainly the primary shareholders, whereas institutional shareholders are mostly not the primary shareholder.

Table 3 also shows the level of concentration of shareholdings in France, as reported by the variable %SHARE which corresponds to %FAM (%GOUV and %INST) when the major shareholders are family (state and institutional investors). We see that family-controlled firms own 48% of outstanding shares. Overall we observe an average family ownership concentration of 18.5%, which is consistent with Francis et al. (2009) who report average family ownership of 25% in France. This concentration is higher than the mean of 7.4% for family ownership concentration observed for Standards & Poors listed US firms (Dechun, 2006). State

\textsuperscript{1} We did not include audit firm size (BIG) to capture the Big 4 premium (Francis, 1984), as Worldscope publishes only one auditor’s name, while France makes joint audit mandatory for listed firms.
controlled-firms own 49.8%, while institutional investor-owned firms own only 18.2%. This overall level of concentration is consistent with the high risk of minority expropriation as identified by La Porta et al. (1998) for France, for whom the capital concentration equals 34% (1998, p. 1149) for the top 3 shareholders of the top ten non-financial listed French firms.

Finally Table 3 discloses the audit fees (in % of sales: FEEPCT) according to the nature of the shareholding. We observe that audit fees are not statistically different in family vs. non-family firms and to a lesser extent

Table 2
Descriptive statistics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>sd</th>
<th>Min</th>
<th>p25</th>
<th>p50</th>
<th>p75</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: continuous variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit fees (k€)</td>
<td>476</td>
<td>5 088</td>
<td>8 037</td>
<td>16</td>
<td>524</td>
<td>1 297</td>
<td>6 635</td>
<td>52 500</td>
</tr>
<tr>
<td>Log (audit fees (k€))</td>
<td>LOGFEE</td>
<td>7.4</td>
<td>1.6</td>
<td>2.7</td>
<td>6.3</td>
<td>7.2</td>
<td>8.8</td>
<td>10.9</td>
</tr>
<tr>
<td>% Shares owned by families with more than 5%</td>
<td>%FAM</td>
<td>476</td>
<td>0.185</td>
<td>0.269</td>
<td>0</td>
<td>0</td>
<td>0.381</td>
<td>0.935</td>
</tr>
<tr>
<td>% Shares owned by state agencies with more than 5%</td>
<td>%GOUV</td>
<td>476</td>
<td>0.030</td>
<td>0.133</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.873</td>
</tr>
<tr>
<td>% Shares owned by institutional investors with more than 5%</td>
<td>%INST</td>
<td>476</td>
<td>0.077</td>
<td>0.143</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.857</td>
</tr>
<tr>
<td>Total assets (M€)</td>
<td>ASSET</td>
<td>476</td>
<td>10</td>
<td>20</td>
<td>57</td>
<td>405</td>
<td>1 310</td>
<td>7 610</td>
</tr>
<tr>
<td>Log (total assets (k€))</td>
<td>LOGASSET</td>
<td>476</td>
<td>14.4</td>
<td>1.9</td>
<td>11.0</td>
<td>12.9</td>
<td>15.8</td>
<td>18.5</td>
</tr>
<tr>
<td>(Accounts receivables + inventory)/total assets</td>
<td>INVREC</td>
<td>476</td>
<td>0.338</td>
<td>0.176</td>
<td>0.033</td>
<td>0.21</td>
<td>0.311</td>
<td>0.452</td>
</tr>
<tr>
<td>Internationals sales/total sales</td>
<td>INTSALE</td>
<td>476</td>
<td>0.448</td>
<td>0.291</td>
<td>0.217</td>
<td>0.468</td>
<td>0.684</td>
<td>1</td>
</tr>
<tr>
<td>Leverage</td>
<td>LEV</td>
<td>476</td>
<td>0.241</td>
<td>0.149</td>
<td>0.001</td>
<td>0.134</td>
<td>0.227</td>
<td>0.342</td>
</tr>
<tr>
<td>Return on assets</td>
<td>ROA</td>
<td>476</td>
<td>0.062</td>
<td>0.059</td>
<td>−0.225</td>
<td>0.036</td>
<td>0.058</td>
<td>0.087</td>
</tr>
<tr>
<td><strong>Panel B: audit fees by year</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit fees (k€)</td>
<td>FEE</td>
<td>5 456</td>
<td>4 898</td>
<td>4 954</td>
<td>5 088</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit fees/sales</td>
<td>FEEPCT</td>
<td>0.16%</td>
<td>0.19%</td>
<td>0.19%</td>
<td>0.18%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>145</td>
<td>164</td>
<td>167</td>
<td>476</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All continuous dependent variables are winsorized (0.01).

Table 3
Nature of shareholders.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
<th>%SHARE</th>
<th>FEEPCT</th>
<th>Variable</th>
<th>N</th>
<th>%</th>
<th>%SHARE</th>
<th>FEEPCT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-family</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Family</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAM</td>
<td>0</td>
<td>293</td>
<td>61.6%</td>
<td>0.00%</td>
<td>0.19%</td>
<td>FAM1</td>
<td>0</td>
<td>314</td>
<td>66.0%</td>
</tr>
<tr>
<td>=1</td>
<td>183</td>
<td>48.0%</td>
<td>0.17%</td>
<td></td>
<td></td>
<td>=1</td>
<td>162</td>
<td>52.3%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>476</td>
<td>100.0%</td>
<td>18.5%</td>
<td>0.18%</td>
<td></td>
<td>476</td>
<td>100.0%</td>
<td>18.5%</td>
<td>0.18%</td>
</tr>
<tr>
<td>t-Tests (t-values)</td>
<td>0.641</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>t-Tests (t-values)</td>
<td>0.382</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-government</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Government</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOUV</td>
<td>0</td>
<td>447</td>
<td>93.9%</td>
<td>0.00%</td>
<td>0.19%</td>
<td>GOUV1</td>
<td>0</td>
<td>449</td>
<td>94.3%</td>
</tr>
<tr>
<td>=1</td>
<td>29</td>
<td>49.8%</td>
<td>0.07%</td>
<td></td>
<td></td>
<td>=1</td>
<td>27</td>
<td>53.06%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>476</td>
<td>100.0%</td>
<td>3.00%</td>
<td>0.18%</td>
<td></td>
<td>476</td>
<td>100.0%</td>
<td>3.00%</td>
<td>0.18%</td>
</tr>
<tr>
<td>t-Tests (t-values)</td>
<td>5.725***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>t-Tests (t-values)</td>
<td>5.831***</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-institutional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Institutional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INST</td>
<td>0</td>
<td>273</td>
<td>57.4%</td>
<td>0.00%</td>
<td>0.16%</td>
<td>INST1</td>
<td>0</td>
<td>382</td>
<td>80.3%</td>
</tr>
<tr>
<td>=1</td>
<td>203</td>
<td>42.6%</td>
<td>0.20%</td>
<td></td>
<td></td>
<td>=1</td>
<td>94</td>
<td>26.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>476</td>
<td>100.0%</td>
<td>7.70%</td>
<td>0.18%</td>
<td></td>
<td>476</td>
<td>100.0%</td>
<td>7.70%</td>
<td>0.18%</td>
</tr>
<tr>
<td>t-Tests (t-values)</td>
<td>−1.052</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>t-Tests (t-values)</td>
<td>−1.081</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FEEPCT = Audit fees/sales; FAM = 1 if at least one shareholder owning more than 5% of the share rights is an identified individual or family, 0 otherwise; GOUV = 1 if at least one shareholder owning more than 5% of the share rights is a state agency, 0 otherwise; INST = 1 if at least one shareholder owning more than 5% of the share rights is an institutional investor, 0 otherwise; FAM1 = 1 if the primary shareholder is an identified individual or family, 0 otherwise; GOUV1 = 1 if the primary shareholder is a state agency, 0 otherwise; INST1 = 1 if the primary shareholder is an institutional investor, 0 otherwise; and %SHARE = % of shares owned by (families/ state agencies/institutional investors) with more than 5%.

*p < 0.10, **p < 0.05, ***p < 0.01, two-tailed tests, two-sample t-test with unequal variances.
also in firms controlled vs. non-controlled by institutional investors. However, state controlled firms exhibit lower audit fees than non-state controlled firms (FEEPCT = 0.07% vs. 0.19%, p < 0.01).

6. Results

Table 4 displays the correlation matrix of the dependent variable (LOGFEE) and the set of independent variables.

This matrix shows that the independent variable (LOGFEE) is negatively and significantly correlated at 1% with the family nature of ownership concentration (%FAM), the inventory and receivables account (INVREC) and Return On Assets (ROA). LOGFEE is also positively and significantly correlated at 1% with the state nature of ownership concentration (%GOUV), assets (LOGASSET), leverage (LEV) and international sales (INTPCT). The direction of correlations is only partially consistent with our hypotheses. We therefore must run the multivariate analysis before reaching any conclusions on the relationships.

The magnitudes of the pairwise correlations among firm specific variables do not exceed 0.5, with the highest significant correlation being between LOGASSET and INTSALES (coeff. = 0.349, p < 0.01). We therefore may have no strong colinearity issues, which we will monitor by reporting VIF indicators. Lastly, the three proxies of the nature of ownership are obviously highly correlated, which raises no concerns as these measures will not be included in the same regressions.

Table 5 presents our multivariate regression results and reports the ordinary least squares (OLS) estimates for the model discussed above. P-values are computed using robust standard errors, adjusted for heteroskedasticity and clustered at the firm level. We include fixed year effects in all regressions.

First, we observe a non-significant relationship between audit fees (LOGFEE) and family-controlled firms, which contradicts H1: “Audit fees are negatively associated with family ownership”. One possible explanation is the presence of two opposite effects: entrenchment effect and alignment effect of family ownership as suggested by Chau and Leung (2006) and Ali et al. (2007). Hence, the relationship between audit fees and family ownership is dependent on the trade-off between these two conflicts (Ali et al., 2007, p. 242).

Second, our model reports a negative and significant coefficient between audit fees (LOGFEE) and state ownership (coeff. = −0.639, p < 0.01). Hence H2: “Audit fees are negatively associated with state ownership” is validated. This result is consistent with the argument of Sun and Tong (2003) about the role of government ownership in preventing shareholders’ wealth expropriation, which should reduce audit fees. Also, state representatives should effectively control managers because if they fail to do so, they may bear reputation costs. This finding also confirms the result of Mok and Hui (1998) that a high state shareholding is a signal to the
market of the government’s confidence in the company and its business model which should reduce agency conflicts causing a decrease in audit fees.

Third, we find a positive and significant coefficient between audit fees (LOGFEE) and institutional investor ownership (coeff. = 0.371,  p < 0.10). Hence H3: “Audit fees are positively associated with institutional ownership” is validated. Our result is consistent with previous results that find a positive association between institutional ownership and auditor size (Kane and Velury, 2004) and confirms that institutional investors demand high quality information and therefore ask for high audit quality (proxied by audit size). These authors suggest that institutional investors increase audit services which is likely to increase audit fees. One other explanation of the positive relationship between audit fees and institutional holdings is that firms may purchase high-quality audit services to send a positive signal to the market about their financial reporting quality in order to attract institutional investment (Mitra et al., 2007).

We run additional analyses with alternative proxies to check the robustness of our main analysis. First we use alternative measures as control variables (such as log(sales) instead of log(assets), and lagged loss or lagged roa instead of current loss or roa). Second, we add other control variables (such as number of business segments, and busy season) and industry effects. Lastly, given the joint audit specificity of the French auditing context, we hand collect the auditors names for one year (2008), and include a binary variable coding for the presence of at least one Big audit firm (we also test an ordinary variable coding for 0, 1 or 2 Bigs). In all cases, our regressions include a smaller number of observations due to missing data, but results are similar to the main analysis.

7. Conclusion

The present study examines the empirical relationship between ownership type and audit fees. The basic premise is that the identity of controlling shareholders influences the risk of minority expropriation and the effectiveness of blockholders to monitor corporate affairs, particularly the financial reporting process. Globally speaking, our results provide differentiated evidence, instead of mixed results stated by previous literature (Hay et al., 2006), about the association between audit fees and ownership structure.
Our study contributes to the literature in several ways. First, we progress the extant research on corporate governance mechanisms by examining the existence of type II agency conflicts in a civil law country (La Porta et al., 1998). We provide a new explanation about previous mixed results on the relationship between ownership concentration and audit fees by examining the identity of controlling shareholders. We find opposite results for institutional blockholder ownership and state blockholder ownership and audit fees. However, we find no evidence of a relationship between family ownership and audit fees. One possible explanation is the existence of a trade-off effect between the decrease in type I agency conflict for family controlled firms and the increase of type II agency conflict, which both influence the magnitude of audit fees.

However, this study suffers from some limitations. First, our variables related to ownership are direct and not ultimate ownership. Second, following Fan and Wong (2005), we assume that controlling and management ownership are stable over the studied period. Despite these limitations, our study aims to improve our understanding of the complex relationships between audit fees and ownership structure, by studying non-managerial ownership (Niemi, 2005; Hay et al., 2006). We aim to generalize these results in future research and examine other institutional contexts of investors’ protection.

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References