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Blockholders' Ownership and Audit Fees: The Impact of the Corporate Governance Model

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Abstract This paper examines how two prominent corporate governance models, namely the shareholder and stakeholder models, have different effects on the relation between agency conflicts and the supply, and demand of audit services. Shareholder (stakeholder) countries rely heavily on public (private) information to reduce information asymmetry for outside investors in the context of high (low) litigation risk. We expect audit fees to reflect the level of agency conflicts in shareholder countries as well as the needs for information of the major blockholders in stakeholder countries. Using a sample of 7982 firm-year observations from 19 countries, we find a U-shaped relation between controlling shareholding and audit fees for shareholder countries and an inverted U-shaped relation between controlling shareholding and audit fees for stakeholder countries. These results are consistent across different firm-level governance arrangements.

1. Introduction

We examine the influence of a country's corporate governance model on the relation between the agency conflicts emerging from blockholder ownership and the cost of monitoring through auditing. More precisely, our research question is: How do the shareholder and stakeholder models (Ball, Kothari, & Robin, 2000) influence the relation between blockholder ownership and audit fees? From an agency theory perspective, blockholder ownership and auditing are two separate corporate governance mechanisms (Jensen & Meckling, 1976). Ownership concentration helps shareholders tackle the separation of ownership from the control of the firm – referred to as the principal–agent or Agency Problem I (AP I hereafter). Blockholder ownership increases the control and reduces information asymmetry by facilitating access to inside information. However, too much ownership can entitle blockholders to extract rents from minority shareholders – referred to as the principal–principal or Agency Problem II (AP II hereafter) (Villalonga & Amit, 2006). Auditing mitigates agency problems by ensuring the quality of the financial statements, which reduces information asymmetry and warrants that all shareholders are treated equally (Desender, Aguilera, Crespi, & Garcia-Cestona, 2013; Francis & Wang, 2008). Several calls for

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research (Carcello, 2011; Hay, Knechel, & Wong, 2006) have addressed the need to understand how blockholder ownership influences audit fees in different contexts. In this study, we propose a model that makes the distinction between shareholder and stakeholder countries.

In shareholder countries, investor protection is high (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997) and external stakeholders demand timely and high-quality public accounting information to mitigate information asymmetries (Ball et al., 2000). In stakeholder countries, investor protection is lower and accounting is subject to a relatively high political influence: multiple stakeholders tend to manage information asymmetries through private channels. Given the high demand for public assurance to reduce information asymmetry and the high litigation risk in the shareholder corporate governance model, we expect the demand for and supply of audit services to reflect the level of the agency conflicts in the audit fees. From the demand side, as shareholders become active in the firm's governance, they are likely to directly monitor management to mitigate the AP I information gap. This situation should reduce the demand for audit effort. However, as control increases beyond a certain level, blockholders have the means to control and influence the board and the management through their ownership. This power engenders the AP II and grants large shareholders the opportunity to engage in transactions that may undermine minority shareholders' interests (e.g. tunneling, Johnson, La Porta, Lopez-de-Silanes, & Shleifer, 2000). Subsequently, large blockholders as well as board members, to minimize their own litigation and reputational risk (Carcello, Hermanson, Neal, & Riley, 2002), then tend to request higher effort from the audit firm. From the supply side, the greater the agency conflicts, the higher the audit risk for the auditor: auditors have incentives to increase their effort as well as to include a risk premium associated with the higher litigation risk when agency conflicts are high. This happens at the lower (AP I) and higher (AP II) blockholder ownership levels. Therefore, we hypothesize a U-shaped relation between blockholder ownership and audit fees for shareholder countries.

Given the high political interference in accounting, the predominance of private flows of information and the low litigation risk in the stakeholder corporate governance model (Ball et al., 2000), we hypothesize an inverted U-shaped relation between blockholder ownership and audit fees for stakeholder countries. Namely, from the demand side, non-controlling shareholders will, as their investment in the firm increases, require increasing effort from auditors to reduce information asymmetry with managers. They will also push to have board members who are independent from management and who will demand more work from the auditors (Desender et al., 2013; Jensen, 1993; O'Sullivan, 2000). However, once control and full access to private information is reached, mainly through additional board seats, blockholders then focus more on direct monitoring (Bohinc & Bainbridge, 2001; Desender et al., 2013). Therefore, they have lower incentives to use auditing services since they also bear most of the costs: they will then demand less from the auditor, which will lower the effort and thus the fees. In addition, from the supply side, a decreased importance of public accounting information and a lower litigation risk shifts auditors' focus away from clients' business risks and toward their needs (Hwang & Chang, 2010). In competitive audit markets with low litigation risk as the ones under study, auditors then have little incentive to include a risk premium associated with both agency conflicts.

We use regression analyses on non-financial listed companies from 19 countries (6 shareholder countries and 13 stakeholder countries) in the 2006–2008 period. Consistent with our hypotheses, the results show that the relation between blockholder ownership and audit fees varies depending on whether the corporate governance model is either shareholder- or stakeholder-oriented. In particular, our results show: (1) a U-shaped relation between blockholder ownership and audit fees in the shareholder corporate governance model; and (2) an inverted U-shaped relation between blockholder ownership and audit fees in the stakeholder corporate governance model. These

results imply that auditors are more reactive to the agency problems in high litigation countries and more opportunistic, driven by the shareholders' needs, in low litigation countries. When we use different proxies for the control variables, alternative blockholder definitions, country indicators or investor protection levels, results remain robust. In additional analyses, we split samples by financial leverage and family ownership. We find the same pattern of our main regression model for each corporate governance setting, which shows the importance of the context (corporate governance model) beyond some firm-level governance arrangements.

We contribute to the literature by providing a model that disentangles how blockholder ownership affects audit fees in different corporate governance contexts. First, we stress the importance of separating management from non-managerial ownership when studying this relation (Core, Hail, & Verdi, 2015; Laux, 2010; Niemi, 2005). Second, we show that the relation between blockholder ownership and audit fees is likely not linear, in contrast to what a large body of literature has assumed (Chan, Ezzamel, & Gwilliam, 1993; Firth, 1997; Niemi, 2005; Piot, 2001). Our results also highlight the importance of the definition of blockholder, since some results are sensitive to it, in particular those related to shareholder countries. Third, our research examines countries from various legal regimes, which allows us to illustrate the differences between alternative corporate governance models (shareholder vs. stakeholder). We provide an example of how the social context of the principal – agent relation transforms the output expected by the classical agency theory (Wiseman, Cuevas-Rodríguez, & Gomez-Mejia, 2012). By making this distinction, we provide evidence on how the approach to obtaining information (public vs. private), and the influence of the legal environment faced by auditors, management and large shareholders, affect the relation between ownership and audit fees. We also provide evidence that the risk premium component of Simunic's (1980) formula of audit fees (audit fees = audit effort + risk premium) is more likely to include the pricing of the risk generated by agency conflicts in shareholder countries than in stakeholder ones. Our results highlight the complex audit pricing decisions that need to be made when assessing agency conflicts while taking into account the corporate governance model. Moreover, very few studies examine the AP II in relation to audit fees (Ben Ali & Lesage, 2013; Fan & Wong, 2005; Hope, Langli, & Thomas, 2012; Khalil, Magnan, & Cohen, 2008), even though this conflict is common throughout the world (Holderness, 2009; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000). Finally, we participate in the debate about the respective importance of firm and country corporate governance characteristics (Doidge, Andrew Karolyi, & Stulz, 2007) on managerial decisions such as assurance services (Francis, Khurana, Martin, & Pereira, 2011), earnings quality (Boulton, Smart, & Zutter, 2011; Gaio, 2010) and IAS adoption (Daske, Hail, Leuz, & Verdi, 2013; Francis, Khurana, Martin, & Pereira, 2008). Our results evidence the dominant role of the country corporate governance model over some firm-level governance characteristics (family ownership and leverage).

The paper is organized as follows. In Section 2 we develop our hypotheses and in Section 3 we present the research design. Section 4 details the sample selection procedures and provides results together with robustness tests and additional analyses. We discuss and summarize the main findings and limitations of our study in Section 5.

2. Hypotheses Development

2.1. Shareholder vs. Stakeholder Corporate Governance Model

We build on Ball et al.'s (2000) analysis of how political influence affects accounting across countries. Based on the demand for timely and conservative accounting income, they classify countries into those with a shareholder corporate governance model (proxied by common-law countries) and those with a stakeholder corporate governance model (proxied by code-law

countries). The question that we address in this paper is whether the differences in both models with regard to the demand for public disclosure of (accounting) information has an impact on the role of the auditor.

Shareholder countries display high investor protection and relatively low ownership concentration (La Porta et al., 1997). In these countries, companies tackle the information asymmetry problem through better disclosure and more timely accounting income. In addition, shareholders exert their power by directly choosing the composition of their board of directors (Ball et al., 2000). Therefore, it is the disclosure market that determines the desirable properties of accounting income. In addition to the demand for public assurance, the high litigation risk[1] and its expected costs affect managers, board members and auditors' disclosure decisions (Kothari, Lys, Smith, & Watts, 1988). The costs related to this litigation risk depend on the lawsuit probability, award size and legal fees.[2]

In comparison, stakeholder countries display relatively low investor protection, relatively high ownership concentration (La Porta et al., 1997) and accounting practices that are highly influenced by politics (Ball et al., 2000). This stronger political influence on accounting occurs at both national and firm levels. At the national level, the government, representatives from political parties and other stakeholders such as labor unions, banks and business associations usually constitute the bodies that establish and enforce the national accounting standards. The legal requirements with regard to public financial reporting accommodate the needs of debtors and governments more so than those of the public financial markets (Guenther & Young, 2000). At the firm level, major stakeholders contracting with the firm are the major actors in the politicization of the firm. These stakeholders see the current-period accounting income as the pie to share (Ball et al., 2000). Blockholders, managers, banks, unions, the government and other major stakeholders work together to decrease information asymmetry by using private information. As a result, the demand for public disclosure of (accounting) information is relatively low. Furthermore, firms in stakeholder countries also resort less to the stock exchange as a source of financing. Instead, the banks play a more active role in the provision of funding (Ali & Hwang, 2000) and, therefore, in monitoring management. Finally, given the lower shareholder protection in stakeholder countries, the management, the board and the audit firms operate in a low litigation risk setting.

Previous research has focused either on the relation between legal regimes (i.e., corporate governance models) and audit fees in cross-country studies, or between ownership and audit fees in one specific country. The former stream globally evidences an audit premium paid in countries where investors' protection is higher (e.g. Choi, Kim, Liu, & Simunic, 2008) while the latter provides mixed results (Hay et al., 2006).

Prior literature in shareholder countries presents contrasting results. Chan et al. (1993) find a negative association between audit fees and insiders' ownership – defined as managerial and blockholders ownership together. Mitra, Hossain, and Deis (2007) find a negative relation between institutional investors' concentration and audit fees, and a positive one between ownership dispersion and audit fees in the United States. Peel and Clatworthy (2001) find no impact from blockholder ownership in British firms. Khalil et al. (2008), testing Canadian firms, find a positive relation between audit fees and the wedge between cash-flow rights

[1] Along with Ball et al. (2000), we acknowledge the diversity in litigation risk within common-law countries. For instance, Ball et al. (2000) classify the United States as the country with the highest litigation risk, followed by Australia and Canada, and classify the United Kingdom as having the lowest litigation risk. In an experimental paper, Hwang and Chang (2010) show that in the United States and Hong Kong – two common-law countries – auditors are more accommodating to client's needs as the litigation environment weakens. This finding aligns with those of other studies using samples from both common and code-law countries (Choi et al., 2009; Francis et al., 2008).

[2] In code-law countries, civil litigation is comparatively rare and the size of awards is relatively small.

and control rights, while Hay, Knechel, and Ling (2008) find a positive relation between the presence of a large shareholder and audit fees in New Zealand. In the same vein, Fan and Wong (2005) use a sample of firms from Singapore, Hong Kong and Malaysia (all shareholder countries) and find that audit fees are positively associated with control rights and negatively associated with cash-flow rights. They explain that auditors assume a higher risk when they audit firms with a high control concentration. Finally, Vafeas and Waegelein (2007) consider a non-monotonic relation between insider ownership and audit fees using a sample of Fortune 500 firms, and find a negative relation mainly driven by low levels of insider ownership.

In stakeholder countries consensus is not any bigger. Piot (2001) finds a non-significant relation between ownership dispersion and the choice of big audit firm in France (as a measure of audit quality). Francis, Vanstraelen, and Richard (2009) find that as ownership concentrates beyond a certain point (25% of the shares), audit quality decreases. Using a sample of Finnish firms, Niemi (2005) controls for managerial ownership and finds a positive relation between audit fees and foreign blockholdings and a non-significant relation between audit fees and governmental blockholding. Similarly, Desender et al. (2013) find different roles for the auditor depending on the concentration of ownership. They find that as concentration increases, audit fees decrease in France and Spain. The authors use audit fees to proxy for the monitoring function of the board and focus on board characteristics. However, their concentration thresholds start at 20%, therefore ignoring the potential effect of smaller blockholders. Ben Ali and Lesage (2013) find a curvilinear relation (inverted U-shape) between controlling shareholders' ownership (defined above 5%) and audit fees in France. However, this study looks only at the supply side of audit services and focuses on a single country setting.

Hereafter we present our theoretical predictions on the relation between ownership and audit fees in both the shareholder and the stakeholder corporate governance models. We discuss the incentives for the managers or large blockholders on the demand side and for the auditors on the supply side.

2.2. Audit Fees and Blockholder Ownership in Shareholder Countries

In the shareholder corporate governance model, agency conflicts resulting from information asymmetry between shareholders and managers are mostly solved by public disclosure of accounting information (Ball et al., 2000). Therefore, we expect a higher demand for audit services when the agency conflicts are higher, since the assurance role of the auditor is to provide credibility to the published accounting information (Francis & Wang, 2008). The higher litigation risk characterizing shareholder countries creates an additional incentive: board members and managers tend to disclose more transparent accounting information when litigation risk is high; this higher likelihood for the managers and board members to be sued (or to pay a higher penalty if sanctioned) by the shareholders may then increase the demand for assurance services. Following the same logic, controlling blockholders may demand more disclosure to limit their litigation risk vis-à-vis minority shareholders.

On the supply side, we also expect higher audit fees when agency conflicts are higher. Following Simunic's (1980) model, we decompose the pricing of audit into (1) the auditor's overall evaluation of the audit effort, and (2) the risk premium arising from undetected material misstatements that could lead to a litigation.

First, according to auditing standards, the auditor should assess the required audit effort based on the appraisal of the audit risk resulting from: (1) a significant error in the financial statements (inherent risk); (2) the inability of the client's internal control systems to detect it (control

risk); and (3) auditors failing to detect it (detection risk).[3] Auditors charge higher fees to clients presenting a higher audit risk level to cover the higher audit effort (Simunic & Stein, 1996). For instance, audit fees are higher for firms facing opportunistic behavior from insiders because of higher inherent and control risks (Khalil et al., 2008). These fees compensate for the greater likelihood of encountering situations where either the management (AP I) or a blockholder (AP II) benefit from entrenchment, asset embezzlement or abusive use of perquisites (Gul & Tsui, 1997; Gul & Tsui, 2001; Jensen & Payne, 2005; Khalil et al., 2008). It is more likely to observe such opportunistic behaviors at the beginning and the end of the ownership concentration continuum,[4] where the AP I and AP II are more acute (Morck, Scheifer, & Vishny, 1988; Shleifer & Vishny, 1997).

Second, given the high litigation risk in the shareholder corporate governance model, it is likely that a higher audit risk will lead to a higher risk premium due to the positive relation between audit fees and litigation risk (Lyon & Maher, 2005). For instance, Choi et al. (2008) find that auditors charge higher fees to firms that are cross-listed in countries with stronger legal regimes. Because common-law is enforced privately through civil litigation, auditors face higher risk of legal action from any of those users of public information (Wingate, 1997),[5] which is more likely to happen when agency problems are high. Previous research has indeed evidenced the higher risk premium paid to the auditors when agency problems are significant (Bedard & Johnstone, 2004; Feldmann, Read, & Abdolmohammadi, 2009; Francis & Simon, 1987; Simunic & Stein, 1996).

This discussion on audit effort and risk premium in a shareholder country suggests that audit fees are positively related to the level of agency conflicts (Healy & Palepu, 2001). The curve at the top of Figure 1 represents the resulting U-shaped predicted association between blockholder ownership and audit fees in shareholder countries:

In the 'monitoring phase', with low blockholder ownership levels and high AP I, shareholders demand high public assurance to reduce information asymmetries. At the same time, board members and managers, in order to limit their legal risks, will also ask for better audits. This demand decreases as monitoring improves through a strong shareholder with aligned interests and increasing wealth at risk.[6] This involvement from a shareholder reduces the information asymmetry and the AP I, which in turn decreases the audit risks and the audit fees. For instance, Chan et al. (1993), using a sample from the United Kingdom, find a negative relation between ownership concentration and audit fees for the largest firms that generally exhibit low levels of blockholding. Once a shareholder's control achieves a certain level, we enter the 'expropriation phase'. In this phase, because the AP II increases, majority shareholders, in order to reduce their

[3]See for instance the International Standards on Auditing – ISA 315, *Understanding the Entity and its Environment and Assessing the Risks of Material Misstatement.* All audit methodologies developed by large audit firms across countries (especially by Big 4 and second-tier audit firms) follow similar audit standards decomposing the audit risk into inherent risk, control risk and detection risk.

[4]Despite the existence of pyramidal structures and double types of shares in practice, we simplify our argument assuming that control increases with the increase of cash flow rights. While these governance structures affect the slope of the control function, the basic reasoning remains unchanged.

[5]Wingate (1997) ranks the litigation risk faced by the auditors according to the level of insurance premium paid by the audit firms over the world. On a scale of 1 to 15, common-law countries mostly rank between 10 (e.g. the United Kingdom) and 15 (the United States, corresponding to the maximum risk for auditors), while code-law countries mostly rank between 3 and 6 (e.g. 6.22 for France or Germany). We use this index in a robustness test (see Section 4.3).

[6]For instance, in the United States, Reg FD (Regulation Fair Disclosure) forces management to disclose any material information at the same time to all shareholders. However, shareholders owning 5% or more of the shares or holding board seats are considered insiders and other rules apply. Therefore, in this monitoring phase, these larger shareholders act as a monitoring element for all other shareholders, reducing the need for additional audit effort and assuming part of the litigation risk.

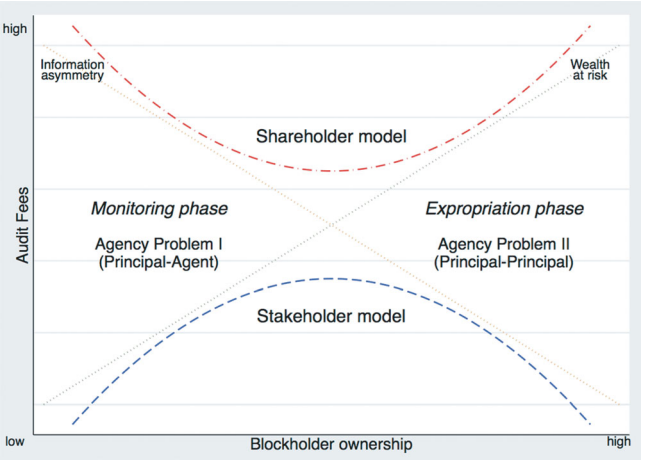

Figure 1. Audit fees and corporate governance model.
Note: This figure traces the theoretical relation between ownership concentration and the inherent agency conflicts. As ownership concentration increases, AP I decreases up to the point where AP II increases. The scale is a generic reference with no empirical support that is context dependent.

own litigation risk and maintain the company attractive to investors, increase their demand for public assurance. From the demand side, board members face litigation and reputational concerns (Carcello et al., 2002). They will demand better audits to reduce those risks, which increases the effort and the risk premium. These forces give rise to the following hypothesis:

H1: In shareholder-governed countries, there is a U-shaped relation between blockholder ownership and audit fees.

2.3. Audit Fees and Blockholder Ownership in Stakeholder Countries

In the stakeholder corporate governance model, agency conflicts resulting from information asymmetry between stakeholders and managers are mostly solved by insider communication (Ball et al., 2000). In these countries, the demand for audit effort beyond the minimum legal requirement can be expected to be more driven by some specific stakeholders' needs than by the public need for assurance. The curve at the bottom of Figure 1 represents the predicted association between blockholder ownership and audit fees in stakeholder countries.

In the 'monitoring phase' characterized by low blockholder ownership levels, high information asymmetries and a high AP I, managers have the most control and little incentives to demand high audit effort. From the demand side, as blockholders increase their shareholdings, they are able to place a greater number of directors who are independent from management. Independent directors face higher information asymmetries than executive directors (Jensen, 1993) and will therefore rely more on the work of the auditors to improve the monitoring of the management (Desender et al., 2013). In this sense, independent directors are in a good position to expand the audit scope, further reducing the information asymmetries (O'Sullivan, 2000). To the extent that a shareholder's investment increases in the firm, she is able to request better quality financial information from the board in order to protect her investment. Diligent auditing operates as a defensive measure against managerial control (Shleifer & Vishny, 1997; Zerni, Kallunki, & Nilsson, 2010). Once the shareholder gains enough control to access private information, mainly through (additional) board seats, we enter the 'entrenchment phase', where her need for audited public information to monitor management and reduce information asymmetries decreases. Blockholders have full control over management and the information gap is closed.

They then focus more on direct monitoring (Bohinc & Bainbridge, 2001; Desender et al., 2013), whereby the audit function becomes an unwanted (beyond the legal requirement) cost that is increasingly borne by the blockholder. Further public information would hinder her capacity to extract rents, so her demand for audit will decrease. For instance, Francis et al. (2009) find, in a French context, a negative relation between audit quality (measured by the board's choice of two Big 4 auditors) and the major shareholder's ownership when the proportion of that shareholder's cash-flow rights exceeds 25%.

On the supply side, we first expect the auditor's effort to be aligned with the stakeholders' (including shareholders') demands, since auditors are more accommodating to clients' needs as the litigation environment weakens (Hwang & Chang, 2010). Second, the low investor protection in stakeholders' countries provides no incentives to the auditor to incorporate any risk premium.

Altogether, these developments suggest that in the absence of a strong legal risk, the incentives that major stakeholders have for audit coverage mainly drive audit fees in stakeholder countries. Ben Ali and Lesage (2013) and Hope et al. (2012) have provided empirical evidence of the resulting concave relation for France and Norway, respectively. However, they consider only one institutional context and therefore, did not examine the effect of the corporate governance model. Ben Ali and Lesage (2013) focus on the supply side of audit services only. Hope et al.'s (2012) study the quadratic effect of CEO ownership in private firms. These firms are characterized by small size and low percentage of Big 4 auditors (18.1%), which explains the low audit fees (mean of audit fees = US$1,964). We extend these first studies and therefore state the following hypothesis:

H2: In stakeholder-governed countries there is an inverted U-shaped relation between blockholder ownership and audit fees.

3. Research Design

We use the following regression model to test our hypotheses:

$$\text{FEE} = \beta_0 + \beta_1 \text{cBLCK2} + \beta_2 \text{cBLCK} + \sum_{1}^{14} \delta_k \text{FSCONTROL} + \text{Fixed effects} + \varepsilon, \quad (1)$$

where FEE is defined by the natural logarithm of audit fees in thousands of U.S. dollars, FSCONTROL denotes firm-specific variables. All variables are defined in Table 1.

Due to the inherent collinearity concerns regarding the use of a term and its quadratic term in the same regression, we use cBLCK, defined as the mean-centered transformation of BLCK, (cBLCK = BLCK – mean (BLCK)), with BLCK computed as the sum of the shareholders (other than managers) owning equal to or more than 5% of the firm's cash-flow rights. We also create $\text{cBLCK2} = (\text{cBLCK})^2$. Two conditions need to be met to validate H1 or H2. First, the general form of the relation between controlling shareholders' cash-flow rights and audit fees depends on the sign of β_1. This is expressed as follows:

- Condition 1 (for the quadratic term):
  - H1 (shareholder): a convex (U-shaped) form if $\beta_1 > 0$.
  - H2 (stakeholder): a concave (inverted U-shaped) form if $\beta_1 < 0$.

Second, the inflection point of each quadratic function needs to remain within the 0–100% range (if not, then the relation continuously increases or decreases within that range). This

Table 1. Definition of variables.

Variable	Empirical definition	Data source
Dependent variable and test variables for Firm i in Country j in Year t		Worldscope Fields
FEE_{ijt}	Natural log of audit fee in thousands of U.S. dollars	#01801
$BLCK_{ij}$	The ratio of controlling shareholders ($>$ 5%) cash-flow rights to total cash-flow rights [a]	#18370
Firm-specific control variables for Firm i in Country j in Year t		
MAN_{ij}	The ratio of managers' shareholders cash-flow rights to total cash-flow rights[a]	#18370
$ASSET_{ijt}$	Natural log of total assets in thousands of U.S. dollars	#02999
$CHTA_{ijt}$	Absolute value of change in total assets, divided by previous year total assets	#02999
$TURN_{ijt}$	Net sales divided by total assets	#07240 & #02999
INT_{ijt}	Foreign sales divided by total sales	#08731
NBS_{ijt}	Natural log of number of business segments + 1	#195 × 6
$XLIST_{ijt}$	1 if firm *i* is cross-listed in foreign capital markets in year *t*, and 0 otherwise	#05427
$LOSS_{ijt}$	1 if firm *i* reports a loss in year *t*, and 0 otherwise	#07250
LEV_{ijt}	The ratio of year-end total debt to total assets	#08236
ROA_{ijt}	Return on assets	#08326
BTM_{ijt}	Book- to-market ratio	#09302
BIG_{ijt}	1 if firm *i* uses one of the big 4 auditors, and 0 otherwise	#078xx
$BUSY_{ijt}$	1 if fiscal year-end is December 31, and 0 otherwise	#05350
Criteria for low/high investor protection countries		
LAW_J	1 if a common-law country, and 0 if a code-law country	La Porta et al. (1998)

[a] Worldscope field #18370 is a text field describing major shareholders owning more than 5%, directors and managers' ownership. It provides us only with current data on ownership structure. In our sample, the average update for our data was done in the year 2007. Following Fan and Wong (2005), we assume that controlling and management ownership are stable over the studied period.

requirement puts an additional constraint on the linear term, which is expressed as follows:

$$0 \leq x \leq 1,$$
$$f'(x) = 0 \text{ where } f(x) = \beta_0 + \beta_1 x^2 + \beta_2 x.$$

This constraint leads to the following second condition for each hypothesis:[7]

- Condition 2 (for the linear term):
  - H1: $2\beta_1$ (mean SRH – 1) $< \beta_2 < 2\beta_1$ mean SRH,
  - H2: $2\beta_1$ mean STK $< \beta_2 < 2\beta_1$ (mean STK – 1),

whereby mean_{SRH} (mean_{STK}) equals the mean of BLCK in shareholder (stakeholder) countries.

The control variable (MAN) for managerial ownership captures the audit fee discount due to the alignment effect created by the shares held by management (Niemi, 2005). The model also includes two sets of firm-specific control variables that control for: (1) audit costs (size and complexity): and (2) the risk of loss that an audit firm could face in the future (Hay et al., 2006; Simunic, 1980). We use ASSET (natural logarithm of total assets expressed in thousands of U.S. dollars) as a proxy for size. We then add five variables that act as proxies for client complexity: CHTA (change in the absolute value of total assets), TURN (assets turnover ratio), INT (% of

[7]Without mean-centered transformation, the condition on the linear term would have been: $-2\beta_1 < \beta_2 < 0$ for H1, and $0 < \beta_2 < -2\beta_1$ for H2.

international sales), NBS (natural log of number of business segments + 1), and XLIST (cross-listing in any other foreign stock exchange). Similar to Choi et al. (2008), we include LOSS and LEV (leverage) to measure the client-specific litigation risk potentially borne by the auditors, which we complement with ROA (return on assets), the interaction ROA*LOSS as in Ho and Kang (2013) and BTM (book-to-market ratio). We also include two auditor-related variables: audit firm size (BIG), to capture the Big 4 premium; and the busy season effect (BUSY), when the firm's fiscal year-end is December 31.

Finally, we include year-fixed effects, country effects, industry effects and an error term (ε).

We partition our sample countries into stakeholder and shareholder subsamples using the LAW variable (Ball et al., 2000; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998). We also use alternative measurements for the level of investor protection in the robustness analyses.

4. Results

4.1. Sample and Descriptive Statistics

The basis for our sample is composed of the set of all publicly listed firms for which Worldscope provides audit fees data over the 2006–2008 period. Table 2 explains the sample selection process.

We exclude firm-year observations with missing values for the dependent and independent variables. We also drop financial institutions (Standard Industrial Classification [SIC] 6000–6999) and public utilities ([SIC] 4600 – 4699; 4800 – 4999). We exclude firms with no blockholders (< 5%, due to data reliability issues as raised by Faccio and Lang (2002), see endnote 11), and countries and industry segments with less than 20 observations. We thereby obtain 7982 firm-year observations (hereafter referred to as 'observations') from 19 countries (Australia, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Japan, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the Netherlands, South Africa, the United Kingdom and the United States).

Table 3 presents descriptive values concerning the dependent and independent variables by country.

Table 3 shows a considerable variance across countries, which illustrates the diversity of the firms within the 19 countries (6 shareholder and 13 stakeholder countries) included in our sample. We also display *t*-values for mean differences between shareholder and stakeholder countries for all variables. We observe that stakeholder countries exhibit significantly lower log-transformed audit fees (diff. FEE = − 0.668, $p < .01$), which is consistent with prior research (e.g. Choi, Kim, Liu, & Simunic, 2009). On average, audit fees paid in shareholder countries equal US$1,222,000 compared to US$626,000 in stakeholder countries. This difference in levels of audit fees is consistent with our hypotheses development. In particular, we expect a higher

Table 2. Sample selection.

No. of observations for 2006–2008	20,720
Less: missing values on audit fees	– 3423
Less: missing values on independent variables	– 3471
Less: observations from financial institutions (SIC: 6000–6999)	– 3058
Less: observations from public utilities (SIC: 4600 – 4699; 4800 – 4999)	– 734
Less: firms with no blockholders (< 5%)	– 2032
Less: industry segments with less than 20 observations	– 8
Less: countries with less than 20 observations	– 12
Total number of firm-year observations	7982

Table 3. Descriptive statistics.

Countries	*N*	LAW	FEE	BLCK	MAN	ASSET	CHTA	TURN	INT	NBS	XLIST	LOSS	LEV	ROA	BTM	BIG	BUSY
Australia	687	1	5.937	0.590	0.104	12.724	1.342	0.870	0.270	1.045	0.016	0.210	0.232	6.550	0.502	0.760	0.122
Ireland	91	1	6.805	0.408	0.075	13.581	0.640	1.321	0.508	1.148	0.231	0.165	0.255	5.536	0.439	0.912	0.692
New Zealand	101	1	5.742	0.626	0.112	12.803	0.823	1.006	0.293	1.048	0.267	0.050	0.288	8.312	0.616	1.000	0.109
South Africa	283	1	6.681	0.485	0.097	13.499	0.464	1.329	0.189	1.140	0.011	0.074	0.168	13.921	0.437	0.873	0.226
United Kingdom	1299	1	6.924	0.457	0.076	13.408	0.603	1.043	0.388	1.116	0.047	0.134	0.203	6.650	0.522	0.828	0.457
United States	1621	1	7.929	0.331	0.082	14.613	0.267	1.150	0.272	1.154	0.015	0.157	0.255	5.713	0.479	0.942	0.635
Shareholder countries	*4082*	*1*	*7.108*	*0.434*	*0.086*	*13.767*	*0.591*	*1.082*	*0.309*	*1.120*	*0.036*	*0.150*	*0.230*	*6.781*	*0.496*	*0.871*	*0.452*
Belgium	103	0	6.475	0.499	0.041	13.603	0.296	1.305	0.446	1.162	0.194	0.097	0.248	7.567	0.592	0.709	0.942
Denmark	128	0	6.915	0.419	0.049	13.428	0.369	1.054	0.395	1.116	0.164	0.164	0.254	6.3024	0.473	0.859	0.797
Finland	127	0	6.692	0.330	0.077	13.585	0.285	1.211	0.536	1.271	0.181	0.094	0.258	7.756	0.578	0.890	0.976
France	473	0	7.274	0.487	0.085	14.240	1.011	0.932	0.404	1.222	0.059	0.087	0.240	5.814	0.595	0.499	0.831
Germany	434	0	6.820	0.537	0.029	13.933	0.315	1.223	0.448	1.290	0.083	0.124	0.206	5.649	0.552	0.758	0.823
Italy	30	0	5.551	0.512	0.102	13.115	0.286	0.940	0.277	1.278	0.033	0.167	0.261	3.812	0.557	0.900	0.800
Japan	1666	0	5.858	0.289	0.042	13.873	0.162	1.201	0.155	1.396	0.002	0.058	0.167	4.165	0.815	0.818	0.095
The Netherlands	90	0	8.046	0.444	0.051	14.633	0.375	1.113	0.547	1.235	0.333	0.144	0.257	5.483	0.480	0.978	0.900
Norway	201	0	6.639	0.533	0.127	13.706	0.965	0.676	0.483	1.216	0.114	0.209	0.349	5.968	0.577	0.960	1.000
Portugal	49	0	6.309	0.601	0.040	14.086	0.302	0.823	0.370	1.296	0.163	0.102	0.421	4.326	0.636	0.735	0.939
Spain	179	0	6.561	0.375	0.130	14.184	0.459	0.756	0.304	1.220	0.251	0.067	0.286	6.741	0.437	0.922	0.950
Sweden	223	0	6.853	0.359	0.091	13.403	0.352	1.181	0.520	1.214	0.170	0.063	0.219	9.068	0.532	1.000	0.910
Switzerland	197	0	6.688	0.384	0.068	13.378	0.286	1.059	0.503	1.142	0.132	0.112	0.179	6.865	0.560	0.975	0.883
Stakeholder countries	*3900*	*0*	*6.440*	*0.386*	*0.060*	*13.861*	*0.376*	*1.104*	*0.320*	*1.297*	*0.078*	*0.089*	*0.213*	*5.465*	*0.664*	*0.807*	*0.546*
All countries	7982		6.782	0.411	0.073	13.813	0.486	1.093	0.315	1.207	0.056	0.120	0.221	6.138	0.578	0.840	0.498
Mean (stakeholder) – Mean (shareholder)			– 0.668	– 0.048	– 0.025	0.094	– 0.215	0.023	0.011	0.177	0.042	– 0.061	– 0.017	– 1.317	0.167	– 0.064	0.094
t-values for mean differences			– 21.6	– 9.7	– 8.4	2.7	– 2.7	1.3	1.1	20.8	8.1	– 8.4	– 4.4	– 5.4	19.6	– 7.8	8.4
p-values (bivariate tests)			0.000	0.000	0.000	0.008	0.008	0.183	0.281	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: This table presents the mean for each variable used in the regressions. For definitions of the variables, see Table 1.

demand for audit services, together with a higher litigation risk in the shareholder countries. Data presented in this table are consistent with previous literature on similar samples. Consistent with La Porta et al.'s (1998) data on the three largest shareholders among the 10 largest listed firms of the country, our sample presents similar results in terms of firm ownership for some countries, such as Germany (0.53 vs. 0.48 in La Porta et al., 1998), the United States (0.33 vs. 0.20), France (0.48 vs. 0.34) and the United Kingdom (0.45 vs. 0.19). The exclusion of firms with no blockholder ($< 5\%$) and our larger sample size through the inclusion of smaller firms, explains the larger shareholding concentration in our sample. In particular, these effects explain the higher ownership concentration in shareholder countries (diff. BLCK $= 0.048$, $p < .01$).

Table 4 displays the correlation matrix of the dependent variable (FEE) and the whole set of independent variables. This matrix shows that the dependent variable (FEE) is negatively and significantly correlated at 1% with the ownership concentration (cBLCK) but not with cBLCK2. Untabulated results indicate a correlation between FEE and cBLCK2 that is positive and significant at 10% for shareholder countries and negative and significant at 10% for stakeholder countries. As regards cBLCK, its correlation with FEE appears non-significant for shareholder countries and negative and significant at 1% for stakeholder countries. Table 4 also shows that FEE is negatively and significantly correlated at 1% with managerial shareholding (MAN), change in total asset (CHTA), loss (LOSS) and book-to-market (BTM). FEE is also positively and significantly correlated at 1% with size (ASSET), asset turnover (TURN), international sales (INT), the number of business segments (NBS), cross-listing (XLIST), leverage (LEV), return on assets (ROA), the presence of a big audit firm (BIG), and the fiscal year-end (BUSY). The direction of correlations is globally consistent with our expectations, although multivariate analysis is necessary before reaching any conclusions on the relations.

The magnitudes of the pairwise correlations among firm-specific variables do not exceed 0.5, except between ROA and LOSS (coeff. $= -0.571$, $p < .01$), which justifies the inclusion of the interaction term in our model, as Ho and Kang (2013) have done. In a multicollinearity analysis calculating the variance inflation factors (VIF), none of the coefficients present an individual VIF exceeding 2.5 (not tabulated).

4.2. Regression Results

Table 5 reports the ordinary least-squares (OLS) estimates for the model discussed above. The *p*-values are computed using robust standard errors adjusted for heteroscedasticity and clustering at the firm level.[8] We include year, industry and country effects in all regressions. All regressions are estimated after removing outliers with a Cook's distance value greater than 4/(sample size) (Choi et al., 2009).

As a starting point, and to benchmark previous research, we run a linear model by omitting the quadratic term (cBLCK2) and by combining managerial and blockholder ownership (BLCK + MGT). We find no significant relation for the shareholder sample and a negative one at the 10% level for the full sample and the stakeholder sample (untabulated).

We then run the linear model on cBLCK only, keeping MGT as a control variable. All samples show a significant decreasing relation between blockholder ownership and audit fees (Full sample: coeff. $= -0.210$, $p < .01$; shareholder sample: coeff. $= -0.114$, $p < .10$; stakeholder sample: coeff. $= -0.265$, $p < .01$). However, results strongly differ once the quadratic term is included in the regression. The full sample continues to show a negative linear coefficient with

[8]This design is similar to Choi et al. (2008). However, we also test alternative clusters. Country clustering is not possible given the lower number of countries compared to the number of variables. Industry clustering (4-digit SIC code) gives similar results to the main analysis.

Table 4. Correlation matrix.

	FEE	cBLCK2	cBLCK	MAN	ASSET	CHTA	TURN	INT	NBS	XLIST	LOSS	LEV	ROA	BTM	BIG	BUSY
FEE	1															
cBLCK2	− 0.018	1														
cBLCK	− 0.169***	0.466***	1													
MAN	− 0.133***	0.025**	− 0.007	1												
ASSET	0.736***	0.003	− 0.205***	− 0.210***	1											
CHTA	− 0.054***	0.049***	0.063***	0.029***	− 0.053***	1										
TURN	0.038***	− 0.041***	− 0.056***	0.005	− 0.059***	− 0.076***	1									
INT	0.244***	0.036***	0.023**	− 0.055***	0.137***	− 0.008	− 0.097***	1								
NBS	0.201***	− 0.063***	− 0.129***	− 0.110***	0.286***	− 0.056***	0.088***	0.005	1							
XLIST	0.248***	0.002	− 0.067***	− 0.070***	0.266***	− 0.009	− 0.062***	0.137***	0.068***	1						
LOSS	− 0.063***	0.015	0.076***	− 0.007	− 0.131***	0.071***	− 0.155***	0.025**	− 0.145***	− 0.045***	1					
LEV	0.191***	0.046***	0.057***	0.015	0.225***	0.023**	− 0.166***	− 0.006	0.017	0.047***	0.047***	1				
ROA	0.058***	0.015	− 0.024**	0.043***	0.053***	− 0.016	0.107***	0.031***	0.015	0.051***	− 0.571***	− 0.115***	1			
BTM	− 0.189***	0.012	0.034***	− 0.044***	− 0.054***	− 0.024**	− 0.025**	− 0.108***	0.080***	− 0.085***	0.049***	− 0.048***	− 0.191***	1		
BIG	0.252***	− 0.033***	− 0.082***	− 0.081***	0.222***	− 0.068***	0.040***	0.046***	0.067***	0.064***	− 0.036***	0.054***	0.061***	− 0.088***	1	
BUSY	0.243***	0.122***	0.075***	− 0.001	0.117***	0.010	− 0.112***	0.182***	− 0.030***	0.136***	0.054***	0.117***	0.010	− 0.083***	0.036***	1
N								7982								

Note: This table presents the Pearson correlation coefficients. cBLCK is the mean-centered transformation of BLCK, defined in Table 1; cBLCK2 = (cBLCK)^2. All other variables are defined in Table 1.

*$p < .10$.

**$p < .05$.

***$p < .01$ (bivariate tests).

Table 5. The effect of blockholder ownership on audit fees.

$$\text{FEE} = \beta_0 + \beta_1\ \text{cBLCK2} + \beta_2\ \text{cBLCK} + \sum_{1}^{14} \delta_k\ \text{FSCONTROL} + \text{Fixed effects} + \varepsilon$$

FEE	Predicted signs	All b/se	Shareholder b/se	Stakeholder b/se	All b/se	Shareholder b/se	Stakeholder b/se
cBLCK2	(a)				− 0.276	0.530**	− 0.904***
					(0.178)	(0.262)	(0.240)
cBLCK	(b)	− 0.210***	− 0.114*	− 0.265***	–0.177***	− 0.134*	− 0.147*
		(0.049)	(0.069)	(0.070)	(0.053)	(0.076)	(0.077)
MAN	−	− 0.175**	− 0.173*	− 0.237*	− 0.167**	− 0.204**	− 0.220*
		(0.075)	(0.095)	(0.124)	(0.076)	(0.096)	(0.122)
ASSET	+	0.552***	0.562***	0.549***	0.550***	0.562***	0.550***
		(0.009)	(0.011)	(0.013)	(0.009)	(0.011)	(0.013)
CHTA	+	0.001	0.024**	0.012**	0.001	0.025**	0.013*
		(0.005)	(0.010)	(0.003)	(0.005)	(0.010)	(0.020)
TURN	+	0.154***	0.169***	0.120***	0.154***	0.166***	0.118***
		(0.015)	(0.018)	(0.023)	(0.015)	(0.018)	(0.023)
INT	+	0.553***	0.606***	0.475***	0.545***	0.611***	0.467***
		(0.037)	(0.046)	(0.059)	(0.037)	(0.046)	(0.059)
NBS	+	0.296***	0.356***	0.177***	0.297***	0.351***	0.183***
		(0.026)	(0.034)	(0.041)	(0.026)	(0.034)	(0.041)
XLIST	+	0.318***	0.300***	0.349***	0.314***	0.291***	0.342***
		(0.046)	(0.068)	(0.064)	(0.046)	(0.068)	(0.063)
LOSS	+	0.092***	0.083**	0.105**	0.092***	0.081**	0.115***
		(0.029)	(0.038)	(0.044)	(0.029)	(0.038)	(0.043)
LEV	+	− 0.055	0.012	− 0.146	− 0.062	0.081	− 0.135
		(0.060)	(0.079)	(0.093)	(0.060)	(0.079)	(0.093)
ROA	−	− 0.007***	− 0.008***	− 0.006**	− 0.007***	− 0.008***	− 0.006**
		(0.001)	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
BTM	−	− 0.055**	− 0.091**	− 0.048	− 0.055**	− 0.099***	− 0.046
		(0.024)	(0.036)	(0.033)	(0.024)	(0.036)	(0.033)
BIG	+	0.248***	0.269***	0.194***	0.247***	0.268***	0.198***
		(0.027)	(0.041)	(0.037)	(0.027)	(0.041)	(0.037)
BUSY	+	0.043*	0.005	0.104**	0.045*	0.002	0.097**
		(0.024)	(0.028)	(0.045)	(0.024)	(0.027)	(0.045)
LOSS × ROA	+	0.007***	0.007***	0.009**	0.007***	0.007***	0.010**
		(0.002)	(0.003)	(0.004)	(0.002)	(0.003)	(0.004)
Constant		− 1.237***	− 1.590***	− 1.036***	− 1.210***	− 1.586***	− 1.026***
		(0.133)	(0.161)	(0.201)	(0.133)	(0.161)	(0.202)
Year effects		Included	Included	Included	Included	Included	Included
Industry effects		Included	Included	Included	Included	Included	Included
Country effects		Included	Included	Included	Included	Included	Included
N		7397	3722	3688	7387	3695	3694
Adj. R^2		0.833	0.840	0.801	0.834	0.843	0.802
p-value		0.000	0.000	0.000	0.000	0.000	0.000
Hausman's test on β_2 (b)						H1	H2
F						2.62	15.83
p-value						0.073*	0.000***

*$p < .10$.
**$p < .05$.
***$p < .01$ (bivariate tests).
(a) Condition for the quadratic term:
- H1 (shareholder): $\beta_1 > 0$.
- H2 (stakeholder): $\beta_1 < 0$.

(b) Condition for the linear term (Hausman's joint test):
- H1 (shareholder): $2\beta_1\ (\text{mean}_{\text{SRH}} - 1) < \beta_2$ and $\beta_2 < 2\beta_1\ \text{mean}_{\text{SRH}}$.
- H2 (stakeholder): $2\beta_1\ \text{mean}_{\text{STK}} < \beta_2$ and $\beta_2 < 2\beta_1\ (\text{mean}_{\text{STK}} - 1)$.

with mean_{SRH} and mean_{STK} being the mean of BLCK for each subsample.
cBLCK is the mean-centered transformation of BLCK, defined in Table 1; $\text{cBLCK2} = (\text{cBLCK})^2$. All other variables are defined in Table 1. All regressions are estimated after removing outliers with a Cook's distance value greater than 4/(sample size) (Choi et al., 2009), which may result in slightly different sample sizes across regressions.

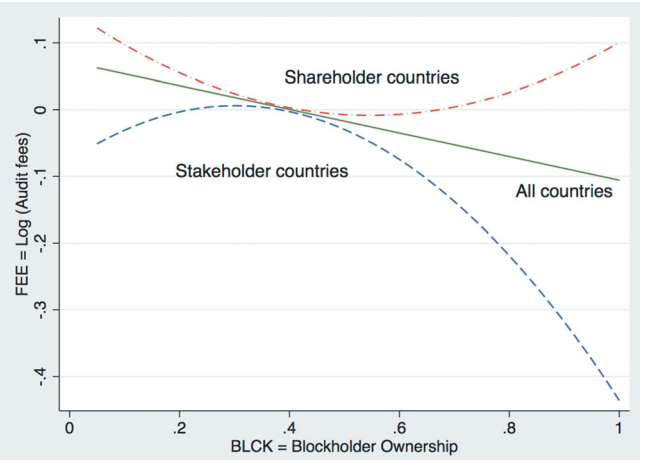

Figure 2. Marginal effect of blockholder ownership on audit fees.
Note: This figure represents the predicted marginal effect of blockholder ownership (BLCK) on the log of audit fees (FEE). We consider only significant coefficient estimates (at 10% level, bivariate) for cBLCK and cBLCK2, as presented in Table 5, and after re-adding the mean for each sample. Other variables are set to zero.

no significant quadratic effect. The shareholder sample shows that cBLCK2 has a significantly positive relation with FEE (coeff. $= 0.530$, $p < .05$). This result meets the first condition (on the quadratic term) for a U-shaped relation between blockholder ownership and audit fees for the shareholder countries. In addition, the Hausman test shows that the second condition (on the linear term) is also met ($F = 2.62$, $p < .10$). We therefore provide evidence consistent with H1.

Conversely, the stakeholder sample shows that cBLCK2 has a significantly negative relation with FEE (coeff. $= -0.904$, $p < .01$). This result meets the first condition (on the quadratic term) for an inverted U-shaped relation between audit fees and ownership concentration. In addition, the Hausman test shows that the second condition (on the linear term) is met ($F = 15.83$, $p < .01$). We therefore validate H2.

To get a better understanding of these results, Figure 2 provides a visual representation of both relations.

Figure 2 shows the different behavior of the audit fees for each sample. For the full sample, the curve presents a decreasing linear slope. For the shareholder sample, the U-shape is right-skewed with a minimum value at 55% of blockholder ownership. This sample exhibits a mostly decreasing curve, with a slight increase towards the end of the blockholder ownership continuum (positive quadratic effect). For the stakeholder sample, the inverted U-shape is left skewed, with a strong quadratic effect and a maximum value at 30% of blockholder ownership.

Then we test the difference in the coefficients across subsamples in a stacked regression on the full sample (untabulated). We find that the linear term is similar for both samples ($p > .10$), while the quadratic term is significantly different ($p < .01$) across samples. This means that the linear trend is globally similar, although occurring at different levels of ownership given the different curvilinear forms of the function. To illustrate the different effects of each function on the audit fees, we compute the economic significance at various levels of ownership.[9] For the shareholder sample, each increase in ownership by 5% generates a decrease of audit fees from 2.5% to 0.4% until ownership reaches 55%. Then, audit fees increase from 0.2% to 1.8% for each

[9]The impact in percentage of the audit fees generated by a change from x% ownership to $(x + \Delta)$% is given by the following transformation: $\%\ in\ audit\ fees = \exp(\Delta^*(\beta_2 + \beta_1(2x + \Delta - 2m)))$ where m represents the mean of ownership for the shareholder or for the stakeholder sample.

subsequent 5% increase in ownership. For the stakeholder sample, each increase in ownership by 5% generates an increase of audit fees from 2.0% to 0.2% until ownership reaches 30%. Then, audit fees decrease from 0.7% to 5.1% for each subsequent 5% increase in ownership.

4.3. Robustness Analyses

In order to assess the robustness of the previous analysis, we run a series of alternative tests (not tabulated).

First, we replicate our tests after changing the proxies for certain independent variables (e.g. size proxied by log sales instead of log assets) or adding other control variables (e.g., current assets). We also run regressions (1) by mean-collapsing the data by year, and (2) on the full sample using a stacked regression. Results are similar to those presented in the main analysis. They also hold if we redefine the variable of interest BLCK as (1) the total sum of all major shareholders reported by Worldscope (including those below 5%), (2) only the first three major shareholders (La Porta et al., 1998), and (3) the Herfindahl Index defined as the sum of squared cash-flow rights of all ownership equal to or more than 5%.

Second, we use various thresholds to define a blockholder (e.g. Francis et al. (2009) consider a blockholder as a shareholder with more than 20% of shares). Results are highly robust and continue to hold for any threshold from 5% to 20%.[10] Finally, if we also include the non-blockholders ($< 5\%$), results hold for the stakeholder sample, although the quadratic effect disappears for the shareholder sample.[11]

Third, similar to Choi et al. (2008), we use an alternative specification to control for some country-level attributes. Instead of country-fixed effects, we use three country-level control variables in the cross-country regressions: (1) an index (WGT) developed by Wingate (1997), who reports anecdotal evidence based on assessments of a leading underwriter of auditor indemnity insurance; (2) gross domestic product per capita in thousands of U.S. dollars (GDP), as audit fees are likely higher in wealthier countries; and (3) foreign direct investments (inward) scaled by GDP (FDI), as the demand for audit services is likely higher in countries with more FDI than in countries with less. Once again, results hold for both settings. These findings support the idea that the context matters beyond firm-level governance attributes.

Fourth, we test alternative definitions of low/high investor protection. Rather than distinguishing between common and code-law countries, we partition our sample according to other criteria that may provide a more nuanced sense of the social embeddedness of the agency relation (Wiseman et al., 2012). We use the Antidirector Rights Index (La Porta et al., 1998), the Doing Business Index (World Bank, 2009) and the anti-self-trading index (Djankov, La Porta, Lopez-de-Silanes, & Shleifer, 2008), the latter of which was created specifically for minority shareholder protection. For each of these indexes, we use the median to partition the sample into low- and high-investor protection. Each of these alternative proxies of investor protection levels give results that are equivalent to those yielded by the code-law vs. common-law distinction we use (with the exception of the World Bank Index for the higher investor protection subsample, for which only a negative linear relation is reported). These results are also consistent with the findings of La Porta et al. (1998, 2000), suggesting that common-law countries have higher investor protection.

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[10] For the stakeholder countries, main results continue to hold for most thresholds up to 40%.

[11] This result should be regarded with caution, as the Worldscope field (#18370) used to extract the blockholding data explicitly mentions cash flow shareholding higher than 5%. Hence, shareholdings below 5% – specifically at 0% – should not be regarded as reliable (e.g. Faccio & Lang, 2002), as it may correspond to data that are not or only partially fulfilled, while blockholders with less that 5% may actually exist.

Table 6. Analysis by leverage.

$$\text{FEE} = \beta_0 + \beta_1\ \text{cBLCK2} + \beta_2\ \text{cBLCK} + \sum_{1}^{14} \delta_k\ \text{FSCONTROL} + \text{Fixed effects} + \varepsilon$$

		Shareholder countries		Stakeholder countries	
FEE	Pred.	Low leverage b/se	High leverage b/se	Low leverage b/se	High leverage b/se
cBLCK2	(a)	− 0.332	0.571*	− 1.160***	− 0.917***
		(0.368)	(0.319)	(0.342)	(0.319)
cBLCK	(b)	− 0.001	− 0.226**	− 0.212*	− 0.078
		(0.105)	(0.093)	(0.109)	(0.096)
FSCONTROL	(c)	Included	Included	Included	Included
Year effects		Included	Included	Included	Included
Industry effects		Included	Included	Included	Included
Country effects		Included	Included	Included	Included
N		1832	1888	1829	1844
Adj. R^2		0.840	0.849	0.784	0.816
p-value		0.000	0.000	0.000	0.000
Hausman's test on β_2	(b)	H1	H1	H2	H2
F		n/a	3.30	14.86	6.11
p-value		n/a	0.037**	0.000***	0.002***

*$p < .10$.
**$p < .05$.
***$p < .01$ (bivariate tests).

(a) Condition for the quadratic term β_1:
- H1 (shareholder): $\beta_1 > 0$.
- H2 (stakeholder): $\beta_1 < 0$.

(b) Condition for the linear term β_2 (Hausman's joint test):
- H1 (shareholder): $2\beta_1$ (mean SRH_LEV − 1) $< \beta_2$ and $\beta_2 < 2\beta_1$ mean SRH_LEV.
- H2 (stakeholder): $2\beta_1$ mean STK_LEV $< \beta_2$ and $\beta_2 < 2\beta_1$ (mean STK_LEV − 1) with $\text{mean}_{\text{SRH\_LEV}}$ and $\text{mean}_{\text{STK\_LEV}}$ being the mean of BLCK for each subsample.
- n/a if β_1 is statistically not significant, as there is no inflection point if $\beta_1 = 0$.

(c) FSCONTROL denotes the firm-specific variables as identified in Table 1.

We only report the test variables here. cBLCK is the mean-centered transformation of BLCK, defined in Table 1; $\text{cBLCK2} = (\text{cBLCK})^2$. All other variables are defined in Table 1. The low (high) leverage sub-samples contain firms whose leverage (LEV) is less (more) than the median for each sample. All regressions are estimated after removing outliers with a Cook's distance value greater than 4/(sample size) (Choi et al., 2009).

4.4. Additional Analyses

In this section, we investigate additional effects of debt leverage and family ownership on our results to capture different firm-level governance arrangements.

First, we run an analysis after splitting the sample based on leverage (for each subsample, stakeholder and shareholder countries), where the low (high) group contains firms whose debt leverage (LEV) is less (more) than the median for each subsample. Table 6 presents the results.

For the shareholder sample, we see that the quadratic relation is significant for high-leveraged firms (cBLCK2 coeff. $= +0.571$, $p < .10$) while not significant for low-leveraged firms. These results could be explained by the lower (higher) pressure exerted by creditors in low (high)-leveraged firms. Since the crucial role of public information is to reduce information asymmetry in a shareholder corporate governance model, auditors are more likely to consider the agency conflicts in their pricing when a third party (here the creditors) needs this information to monitor the firm. This additional result supports our main findings, as high-leveraged firms are also more

risky firms, leading auditors to consider more carefully the client-specific risks in shareholder countries, including the agency conflicts.

For the stakeholder countries, Table 6 shows a significant quadratic term for both low- (cBLCK2 coeff. $= -1.160$, $p < 0.01$) and high- (cBLCK2 coeff. $= -0.917$, $p < 0.01$) leveraged firms. This result is consistent with the lower need for public assurance for a creditor in a stakeholder corporate governance model and the decreasing demand for auditing, as information asymmetry is reduced (H2). In this vein, other research has made the distinction between market-based and bank-based economies (Allen & Gale, 2000; Hicks, 1969), which is aligned with the shareholder/stakeholder distinction.[12]

Second, we investigate the influence of family shareholding on our results. Given the specificities of family firms' governance (Aguilera & Crespi-Cladera, 2012), we might expect the role of private/public information to be affected by family ownership. It may therefore influence the supply/demand for audit services, although the interaction is not clear. Prior studies argue that, compared to non-family firms, family firms are less likely to face the AP I, and more likely to face the AP II (Ali, Chen, & Radhakrishnan, 2007; Ho & Kang, 2013). Family firms have, on the one hand, the incentives and means to control managerial opportunism, since they have less diversified portfolios and hold large blocks of shares. Additionally, they are well informed about the firms' decisions because family members participate in the management or serve as directors on the board (Chen, Chen, & Cheng, 2008). Consequently, family firms face a lower principal – agent conflict. Given this reduced audit and litigation risks, auditors are likely to charge lower fees for family firms. On the other hand, controlling shareholders of family firms have stronger incentives to expropriate wealth from minority shareholders than widely held corporations, since private benefits of control are not diluted among several independent owners (Villalonga & Amit, 2006). Besides, family shareholders can easily extract private benefits with the help of a board dominated by family members (Hope et al., 2012). Thus, family firms face a higher AP II compared to non-family firms. Prior research shows that auditors need to increase the scope of their audit for firms with high agency conflicts because of increased audit risk (inherent and/or control risk) and auditor business risk (litigation risk) (Khalil et al., 2008). Consequently, audit fees in family firms depend on the tradeoffs generated between decreases in AP I and increases in AP II.

As prior research provides only limited guidance on how to identify family firms (Anderson & Reeb, 2003), we define family firms as firms with one family shareholder among the first three shareholders holding more than 5% cash-flow rights. We obtained the nature of the ownership from ThomsonOneBanker for a subsample of countries (United Kingdom, France, and Germany), which provides us with a reduced sample of 1868 observations. Table 7 reports the OLS regression results.

For the shareholder model, we confirm the main effect of shareholding on audit fees, with the cBLCK2 coefficient being positive and significant for both non-family (coeff.: + 1.013; $p < 0.10$) and family subsamples (coeff.: + 3.038; $p < 0.01$). For the stakeholder model, we also confirm the main effect of shareholding on audit fees, with cBLCK2 coefficients being negative and significant for both non-family (coeff.: -0.840; $p < 0.05$) and family subsamples (coeff.: -1.432; p < 0.05). In addition, we find evidence that the quadratic effect is more pronounced in shareholder countries ($cBLCK2_{FAM} > cBLCK2_{No\_FAM,}$ $p < 0.10$) while we do not find a difference in stakeholder countries ($cBLCK2_{FAM} > cBLCK2_{No\_FAM,}$ $p > 0.10$).

[12] According to these references, countries in our sample that are market-based countries are the United Kingdom and the United States, and bank-based countries are Germany, France, and Japan. We ran the main test on these two subsamples. We obtain similar results to the main analysis.

Table 7. Family ownership.

$$\text{FEE} = \beta_0 + \beta_1\ \text{cBLCK2} + \beta_2\ \text{cBLCK} + \sum_{1}^{14} \delta_k\ \text{FSCONTROL} + \text{Fixed effects} + \varepsilon$$

		Shareholder countries		Stakeholder countries	
FEE	Pred. signs	Non-family b/se	Family b/se	Non-family b/se	Family b/se
cBLCK2	(a)	1.013*	3.038***	− 0.840**	− 1.432**
		(0.576)	(1.044)	(0.411)	(0.666)
cBLCK	(b)	− 0.022	0.032	− 0.812***	− 0.116
		(0.156)	(0.235)	(0.119)	(0.211)
FSCONTROL	(c)	Included	Included	Included	Included
Year effects		Included	Included	Included	Included
Industry effects		Included	Included	Included	Included
Country effects		Included	Included	Included	Included
N		860	334	515	333
Adj. R^2		0.841	0.719	0.893	0.865
p-value		0.000	0.000	0.000	0.000
Hausman's test on β_2 (b)		H1	H1	H2	H2
F		n/a	n/a	23.4	4.55
p-value		n/a	n/a	0.000***	0.012**

*$p < .10$.
**$p < .05$.
***$p < .01$ (bivariate tests).

(a) Condition for the quadratic term β_1:
- H1 (shareholder): $\beta_1 > 0$.
- H2 (stakeholder): $\beta_1 < 0$.

(b) Condition for the linear term β_2 (Hausman's joint test):
- H1 (shareholder): $2\beta_1$ (mean SRH_FAM – 1) $< \beta_2$ and $\beta_2 < 2\beta_1$ mean SRH_ FAM.
- H2 (stakeholder): $2\beta_1$ mean STK_ FAM $< \beta_2$ and $\beta_2 < 2\beta_1$ (mean STK_ FAM – 1) with $\text{mean}_{\text{SRH\_FAM}}$ and $\text{mean}_{\text{STK\_FAM}}$ being the mean of BLCK for each subsample.
- n/a if β_1 is statistically not significant, as there is no inflection point if $\beta_1 = 0$.

(c) FSCONTROL denotes the firm-specific variables as identified in Table 1.

We only report the test variables here. cBLCK is the mean-centered transformation of BLCK, defined in Table 1; $\text{cBLCK2} = (\text{cBLCK})^2$. All other variables are defined in Table 1. The family (non-family) subsamples contain firms with (without) a family shareholder in the top three blockholders in a subsample of countries (United Kingdom, France and Germany). We identify a family shareholder as the 'Strategic Entities – Individuals' investor type defined by ThomsonOneBanker. All regressions are estimated after removing outliers with a Cook's distance value greater than 4/(sample size) (Choi et al., 2009).

These results are consistent with those of previous research documenting higher type II agency conflicts in family firms in the U.S. context. Family firms there present higher financial reporting quality (Ali et al., 2007; Ghosh & Tang, 2015) and greater earnings informativeness (Wang, 2006), suggesting that the effect of the reduced manager–shareholders agency problem dominates the potential increase in the AP II. These results are also supported by Ho and Kang (2013) and Ghosh and Tang (2015) in the United States. Ho and Kang (2013) find that family firms demand lower audit effort resulting in lower audit fees. Using a sample of S&P 1500 firms, they show that family firms are reluctant to engage top-tier auditors and that auditors perceive lower audit risk for family firms. Based on a sample of the 2000 largest industrial firms in the United States as of December 31, 2001, Ghosh and Tang (2015) show that family firms present superior reporting quality, lower audit risk and lower litigation risk. Consequently, when auditing family firms, auditors work less to provide assurance and charge less fees.

Maury (2006) finds that the behavior of family firms depends also on the investor protection level. Their results obtained from Western corporations evidence that family control influences firm profitability positively, particularly in economies with high shareholder protection. They also argue that family ownership in well-regulated environments does not seem to harm minority shareholders but instead profits them. Our results provide an updated view on this issue by showing that, despite the family firms' specificities, the distinction based on the corporate governance model is relevant and helps explain the relation between blockholder ownership and audit fees.

5. Conclusion

This paper examines the relation between blockholder ownership and audit fees conditional on a country's corporate governance model. This research is important in providing a better understanding of the incorporation of agency conflicts into the pricing of audit services and their effect on the role of the auditor. Furthermore, it provides a model that helps clarify previous confounding results regarding this matter.

Auditors clearly take into consideration the type and magnitude of agency conflicts when pricing their services, although they do it in very different ways according to the social context (Wiseman et al., 2012). Overall, litigation risk linked to agency conflict appears to be incorporated in the risk premium in shareholder countries, while its significance seems limited in stakeholder ones. In stakeholder countries, auditors seem more captive of the customer and the competitive market forces when pricing their services. These results contribute to the current debate on the importance of country vs. firm-level characteristics in the literature (Boulton et al., 2011; Doidge et al., 2007; Francis et al., 2008, 2011; Gaio, 2010).

In addition, our paper sheds light on certain elements to be considered when studying ownership and audit fees. First, previous literature broadly agrees on the negative relation between management ownership and audit fees (Gotti, Han, Higgs, & Kang, 2012; Gul & Tsui, 2001; Hope et al., 2012; Mitra et al., 2007; Niemi, 2005; Nikkinen & Sahlström, 2004). The few studies that examine non-managerial blockholdings and audit fees do not reach such broad consensus (Hay et al., 2006). Part of this lack of consensus comes from prior research that does not separate managerial from external ownership (Chan et al., 1993; Firth, 1997; Vafeas & Waegelein, 2007). This unification might cause problems, since managers do not face the information asymmetries and do not have the same incentives to hire auditors that outside shareholders have (Niemi, 2005). For instance, insider ownership works as a substitute for disclosure quality (Core et al., 2015) while management equity compensation and litigation risk have opposite effects on monitoring (Laux, 2010). These effects create a great degree of difficulty in disentangling the effects of insider and outsider ownership.

Another reason for the ambiguity of previous results comes from the assumption of a linear relation between blockholder ownership and audit fees. Only few studies (Ben Ali & Lesage, 2013; Vafeas & Waegelein, 2007) have tackled the issue as a nonlinear phenomenon.

Some caution should be taken, however, when interpreting our results. First, our variables related to ownership refer to direct and not to ultimate ownership. In addition, following Fan and Wong (2005), we assume that controlling ownership and management ownership are stable over the studied period. More generally, previous research (Faccio & Lang, 2002; Holderness, 2009) has raised concerns regarding data limitations from the Worldscope database.

This paper opens some avenues for further research on the role of social context and other corporate governance mechanisms on audit fees. For instance, the role of independent directors (from management) in relation to the role of the auditor across contexts is worth exploring. The audit literature would also benefit from further research on disentangling the relation between

effort and risk. DeFond and Zhang (2014) correctly argue that there is a lack of substantive research that disentangles audit effort from risk premium. However, we are not able to solve this puzzle given the substantial difficulties involved in gaining access to the required proprietary data. Yet, one would expect that effort positively correlates with any additional risk of litigation, meaning the higher the probability of getting sued for lack of a good audit, the more effort the auditor will put into avoiding it (Simunic, 1980). A premium beyond the regular fees might accompany that effort (Simunic & Stein, 1996). In addition, fees jointly capture both supply and demand factors (DeFond & Zhang, 2014). Although we deal with this issue in our theoretical development, we cannot disentangle both factors empirically. The use of audit fees and ownership concentration to measure agency conflicts may raise some measurement issues worth considering when reading our results and we encourage further research in this direction. Finally, by excluding firms with no blockholders, our study focuses on companies experiencing different degrees of both AP I and AP II issues. Future research could address the influence of smaller ownership on audit fees. Such inquiries may allow a better understanding on the relation between agency conflicts and the demand and supply of audit services in different corporate governance contexts.

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References

Aguilera, R. V., & Crespi-Cladera, R. (2012). Firm family firms: Current debates of corporate governance in family firms. *Journal of Family Business Strategy*, *3*(2), 66–69.

Ali, A., Chen, T.-Y., & Radhakrishnan, S. (2007). Corporate disclosures by family firms. *Journal of Accounting & Economics*, *44*(1–2), 238–286.

Ali, A., & Hwang, L.-S. (2000). Country-specific factors related to financial reporting and the value relevance of accounting data. *Journal of Accounting Research*, *38*(1), 1–21.

Allen, F., & Gale, D. (2000). *Comparing financial systems*. Cambridge: MIT Press.

Anderson, R. C., & Reeb, D. M. (2003). Founding-family ownership and firm performance: Evidence from the S&P 500. *Journal of Finance*, *58*(3), 1301–1328.

Ball, R., Kothari, S. P., & Robin, A. (2000). The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics*, *29*(1), 1–51.

Bedard, J. C., & Johnstone, K. M. (2004). Earnings manipulation risk, corporate governance risk, and auditors' planning and pricing decisions. *Accounting Review*, *79*(2), 277–304.

Ben Ali, C., & Lesage, C. (2013). Les auditeurs financiers face aux conflits d'agence: Une étude des déterminants des honoraires d'audit en France. *Comptabilité – Contrôle – Audit*, *19*(1), 59–89.

Bohinc, R., & Bainbridge, S. M. (2001). Corporate governance in post-privatized Slovenia. *The American Journal of Comparative Law*, *49*(1), 49–77.

Boulton, T. J., Smart, S. B., & Zutter, C. J. (2011). Earnings quality and international IPO underpricing. *Accounting Review*, *86*(2), 483–505.

Carcello, J. V. (2011, January 13–15). *Plenary session, AAA mid-year auditing section*, Albuquerque, New Mexico.

Carcello, J. V., Hermanson, D. R., Neal, T. L., & Riley, R. A. (2002). Board characteristics and audit fees. *Contemporary Accounting Research*, *19*(3), 365–384.

Chan, P., Ezzamel, M., & Gwilliam, D. (1993). Determinants of audit fees for quoted UK companies. *Journal of Business Finance & Accounting*, *20*(6), 765–786.
Chen, S., Chen, X. I. A., & Cheng, Q. (2008). Do family firms provide more or less voluntary disclosure? *Journal of Accounting Research*, *46*(3), 499–536.
Choi, J.-H., Kim, J.-B., Liu, X., & Simunic, D. A. (2008). Audit pricing, legal liability regimes, and big 4 premiums: Theory and cross-country evidence. *Contemporary Accounting Research*, *25*(1), 55–99.
Choi, J.-H., Kim, J.-B., Liu, X., & Simunic, D. A. (2009). Cross-listing audit fee premiums: Theory and evidence. *Accounting Review*, *84*(5), 1429–1463.
Core, J. E., Hail, L., & Verdi, R. S. (2015). Mandatory disclosure quality, inside ownership, and cost of capital. *European Accounting Review*, *24*(1), 1–29.
Daske, H., Hail, L., Leuz, C., & Verdi, R. (2013). Adopting a label: Heterogeneity in the economic consequences around IAS/IFRS adoptions. *Journal of Accounting Research*, *51*(3), 495–547.
DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting & Economics*, *58*(23), 275–326.
Desender, K. A., Aguilera, R. V., Crespi, R., & Garcia-Cestona, M. (2013). When does ownership matter? Board characteristics and behavior. *Strategic Management Journal*, *34*(7), 823–842.
Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008). The law and economics of self-dealing. *Journal of Financial Economics*, *88*(3), 430–465.
Doidge, C., Andrew Karolyi, G., & Stulz, R. M. (2007). Why do countries matter so much for corporate governance? *Journal of Financial Economics*, *86*(1), 1–39.
Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European corporations. *Journal of Financial Economics*, *65*(3), 365–395.
Fan, J. P. H., & Wong, T. J. (2005). Do external auditors perform a corporate governance role in emerging markets? Evidence from East Asia. *Journal of Accounting Research*, *43*(1), 35–72.
Feldmann, D. A., Read, W. J., & Abdolmohammadi, M. J. (2009). Financial restatements, audit fees, and the moderating effect of CFO turnover. *Auditing*, *28*(1), 205–223.
Firth, M. (1997). The provision of nonaudit services by accounting firms to their audit clients. *Contemporary Accounting Research*, *14*(2), 1–21.
Francis, J. R., Khurana, I. K., Martin, X., & Pereira, R. (2008). The role of firm-specific incentives and country factors in explaining voluntary IAS adoptions: Evidence from private firms. *European Accounting Review*, *17*(2), 331–360.
Francis, J. R., Khurana, I. K., Martin, X., & Pereira, R. (2011). The relative importance of firm incentives versus country factors in the demand for assurance services by private entities. *Contemporary Accounting Research*, *28*(2), 487–516.
Francis, J. R., & Simon, D. T. (1987). A test of audit pricing in the small-client segment of the U.S. audit market. *Accounting Review*, *62*(1), 145–157.
Francis, J. R., Vanstraelen, A., & Richard, C. (2009). Assessing France's joint audit requirement: Are two heads better than one? *Auditing*, *28*(2), 35–63.
Francis, J. R., & Wang, D. (2008). The joint effect of investor protection and Big 4 audits on earnings quality around the world. *Contemporary Accounting Research*, *25*(1), 157–191.
Gaio, C. (2010). The relative importance of firm and country characteristics for earnings quality around the world. *European Accounting Review*, *19*(4), 693–738.
Ghosh, A., & Tang, C. Y. (2015). Assessing financial reporting quality of family firms: The auditors'auditor's perspective. *Journal of Accounting & Economics*, *60*(2), 95–116.
Gotti, G., Han, S., Higgs, J. L., & Kang, T. (2012). Managerial stock ownership, analyst coverage, and audit fee. *Journal of Accounting, Auditing & Finance*, *27*(3), 412–437.
Guenther, D. A., & Young, D. (2000). The association between financial accounting measures and real economic activity: A multinational study. *Journal of Accounting and Economics*, *29*(1), 53–72.
Gul, F. A., & Tsui, J. S. L. (1997). A test of the free cash flow and debt monitoring hypotheses: Evidence from audit pricing. *Journal of Accounting and Economics*, *24*(2), 219–237.
Gul, F. A., & Tsui, J. S. L. (2001). Free cash flow, debt monitoring, and audit pricing: Further evidence on the role of director equity ownership. *Auditing*, *20*(2), 71–84.
Hay, D., Knechel, W. R., & Ling, H. (2008). Evidence on the impact of internal control and corporate governance on audit fees. *International Journal of Auditing*, *12*(1), 9–24.
Hay, D. C., Knechel, W. R., & Wong, N. (2006). Audit fees: A meta-analysis of the effect of supply and demand attributes. *Contemporary Accounting Research*, *23*(1), 141–191.
Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*(1–3), 405–440.
Hicks, J. (1969). *A theory of economic history*. Oxford: Clarendon.

Ho, J. L., & Kang, F. (2013). Auditor choice and audit fees in family firms: Evidence from the S&P 1500. *Auditing: A Journal of Practice & Theory*, *32*(4), 71–93. Retrieved from http://doi.org/10.2308/ajpt-50533

Holderness, C. G. (2009). The myth of diffuse ownership in the united states. *Review of Financial Studies*, *22*(4), 1377–1408.

Hope, O.-K., Langli, J. C., & Thomas, W. B. (2012). Agency conflicts and auditing in private firms. *Accounting, Organizations & Society*, *37*(7), 500–517.

Hwang, N.-C. R., & Chang, C. J. (2010). Litigation environment and auditors' decisions to accept clients' aggressive reporting. *Journal of Accounting & Public Policy*, *29*(3), 281–295.

Jensen, K. L., & Payne, J. L. (2005). Audit procurement: Managing audit quality and audit fees in response to agency costs. *Auditing*, *24*(2), 27–48.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *Journal of Finance*, *48*(3), 831–880.

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360.

Johnson, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2000). Tunneling. *American Economic Review*, *90*(2), 22–27.

Khalil, S., Magnan, M. L., & Cohen, J. R. (2008). Dual-class shares and audit pricing: Evidence from the Canadian markets. *Auditing*, *27*(2), 199–216.

Kothari, S. P., Lys, T., Smith, C. W., & Watts, R. L. (1988). Auditor liability and information disclosure. *Journal of Accounting, Auditing & Finance*, *3*(4), 307–339.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1997). Legal determinants of external finance. *Journal of Finance*, *52*(3), 1131–1150.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and finance. *Journal of Political Economy*, *106*(6), 1113–1155.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, *58*(1–2), 3–27.

Laux, V. (2010). Effects of litigation risk on board oversight and CEO incentive pay. *Management Science*, *56*(6), 938–948.

Lyon, J. D., & Maher, M. W. (2005). The importance of business risk in setting audit fees: Evidence from cases of client misconduct. *Journal of Accounting Research*, *43*(1), 133–151.

Maury, B. (2006). Family ownership and firm performance: Empirical evidence from Western European corporations. *Journal of Corporate Finance*, *12*(2), 321–341.

Mitra, S., Hossain, M., & Deis, D. (2007). The empirical relationship between ownership characteristics and audit fees. *Review of Quantitative Finance & Accounting*, *28*(3), 257–285.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation. *Journal of Financial Economics*, *20*(1), 293–315.

Niemi, L. (2005). Audit effort and fees under concentrated client ownership: Evidence from four international audit firms. *The International Journal of Accounting*, *40*(4), 303–323.

Nikkinen, J., & Sahlström, P. (2004). Does agency theory provide a general framework for audit pricing? *International Journal of Auditing*, *8*(3), 253–262.

O'Sullivan, N. (2000). The impact of board composition and ownership on audit quality: Evidence from large UK companies. *The British Accounting Review*, *32*(4), 397–414.

Peel, M. J., & Clatworthy, M. A. (2001). The relationship between governance structure and audit fees pre-Cadbury: Some empirical findings. *Corporate Governance: An International Review*, *9*(4), 286–297.

Piot, C. (2001). Agency costs and audit quality: Evidence from France. *European Accounting Review*, *10*(3), 461–499.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance*, *52*(2), 737–783.

Simunic, D. A. (1980). The pricing of audit services: Theory and evidence. *Journal of Accounting Research*, *18*(1), 161–190.

Simunic, D. A., & Stein, M. T. (1996). The impact of litigation risk on audit pricing: A review of the economics and the evidence. *Auditing*, *15*(2), 119–134.

Vafeas, N., & Waegelein, J. (2007). The association between audit committees, compensation incentives, and corporate audit fees. *Review of Quantitative Finance & Accounting*, *28*(3), 241–255.

Villalonga, B., & Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of Financial Economics*, *80*(2), 385–417.

Wang, D. (2006). Founding family ownership and earnings quality. *Journal of Accounting Research*, *44*(3), 619–656.

Wingate, M. (1997). An examination of cultural influence on audit environment. *Research in Accounting Regulation*, *11*(Supplement), 129–148.

Wiseman, R. M., Cuevas-Rodríguez, G., & Gomez-Mejia, L. R. (2012). Towards a social theory of agency. *Journal of Management Studies*, *49*(1), 202–222.

World Bank. (2009). *Doing business report*. Retrieved from http://www.doingbusiness.org/rankings

Zerni, M., Kallunki, J.-P., & Nilsson, H. (2010). The entrenchment problem, corporate governance mechanisms, and firm value. *Contemporary Accounting Research*, *27*(4), 1169–1206.