

Uncertain Supply Chain Management

homepage: www.GrowingScience.com/uscm**External auditing costs of fair value model amongst Jordanian financial institutions: The moderating effect of ownership structure****Esraa Esam Alharasis^{a*}, Maria Prokofieva^b, Colin Clark^c, Khaled Hussainey^d, Ahmad Marei^e, Abdalwali Lutfi^{f,gh} and Mahmaod Alrawad^{h,i}**^aDepartment of Accounting, Faculty of Business, Mutah University, Al-Karak Governorate, Jordan^bBusiness School, Victoria University, Melbourne, Australia^cVictoria University, Australia^dBangor Business School, Bangor University, Bangor, United Kingdom^eMiddle East University, Amman, Jordan^fCollege of Business Administration, The University of Kalba, Kalba, United Arab Emirates^gJadara University Research Center, Jadara University, Jordan^hApplied Science Research Center, Applied Science Private University, Amman, JordanⁱCollege of Business Administration and Economics, Al-Hussein Bin Talal University, Ma'an 71111, Jordan^jQuantitative Method, College of Business Administration, King Faisal University, Al-Ahsa 31982, Saudi Arabi**ABSTRACT***Article history:*

Received July 2, 2024

Received in revised format August 1, 2024

Accepted August 5 2024

Available online

August 6 2024

*Keywords:**Fair value model**Ownership structure**Audit costs**Developing countries**Jordan*

The paper presents a fresh empirical approach for clarifying the impact of Jordan's most prevalent forms of ownership on the link between the “fair value (FV)” model share of assets and auditing costs. Using information gathered from 105 Jordanian financial listed companies spanning 2005 to 2018, ordinary least squares regression is applied in this paper. While financial institution ownership variables cause the opposite to be observed, family ownership decreases the link among the share of assets at FV and audit expenses. Family ownership results in decreased auditing costs paid only for “Level 1” assets; conversely, the extremely uncertain FV assets “Level 2 & 3” show the opposite. Financial institutional ownership demonstrates that auditing FV Level 1 leads to higher auditing costs. When relating FV Levels 2 and 3, the moderating effect of financial institutional ownership was significantly negative. No significant moderating effect of government ownership is confirmed. The inconclusive and limited empirical explanation of audit costs resulting from the FV model from a Western setting motivates our investigation. This study is considered as a unique study as it takes into account the most prevalent types of ownership in the Jordanian context in the FV studies reviewing auditees in Jordan. New evidence is generated by documenting audit characteristics of Jordan, a developing country, and its institutional environment and compliance with the FV model. The results are useful to regulators and policymakers in regulating the auditing profession and resolving FV audit-related conflicts and issues.

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1. Introduction

In this era of globalization, traditional accounting regulatory systems are not meeting the expectations of international players. Developing countries are now linking their economies given the now more closely related trade and commercial interests, political cooperation, and integrated economic systems (Alqudah et al., 2023; Tahat et al., 2018). These elements produce more harmony with financial data. The reforms are significant in developing nations since conventional accounting rules and practices limit their chances to draw in outside investors (Al-Htaybat, 2018; Jamaani et al., 2022; Lutfi et al., 2022). The finest accounting system for enabling economic development is the “International Accounting Standards/International Financial

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ISSN 2291-6830 (Online) - ISSN 2291-6822 (Print)

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doi: 10.5267/j.uscm.2024.8.006

Reporting Standards (IAS)/(IFRS)” (Sangchan et al., 2020; Samaha & Khlif, 2016). The “Fair Value (FV)” model was launched in 2005 as part of the “International Accounting Standards Board (IASB schedule)”, after the “fair value option” (IAS 39) was published (IAS Plus, 2005). FV figures take into account the present context of the economy and provide fresh forecasts (IAS Plus, 2018). When compared to traditional accounting procedures, “Fair Value Measurement (FVM)” is superior in enhancing meaningful data on firms' financial positions and practices (Barth & Landsman, 2018; Alharasis et al., 2021). However, adopting the FVM creates significant challenges for auditors in acquiring and verifying FV input levels (Griffith et al., 2015; Griffith, 2020). Given the growing use of complex FV computations, managerial bias increases the need for high-quality audit services to ensure reliability. (Glover et al., 2019; Huang et al., 2016; Sangchan et al., 2020). Choosing among three input levels for financial instruments, which have been mandated since 2009 is equally challenging (Griffith, 2020; IAS Plus, 2020). Prices for stated equivalent equities and loans the company can get from active markets are “Level 1” inputs. Level 2 asset and liability inputs are either directly or indirectly observable. Level 3 inputs use valuation techniques predicated on invisible inputs (IAS Plus, 2019a, 2019b).

Particularly in Jordan, companies in the “Middle East (ME)” have a high degree of ownership concentration; family ownership is the most often occurring kind (Alhababsah, 2019; Alharasis et al., 2022a, 2022b). Under various conditions, one of the main factors causing more audit complexity and risk is considered as the type of ownership (Hay et al., 2006). Agency theory holds that managers' attempts to maximise their money, interests, and goals cause a conflict of interest between owners or managers and shareholders. This study thus looks at the moderating effect of such ownership characteristics in Jordan (family, government, and financial institutions) in the link between fair-valued asset share and auditing expenses from 2005 to 2018. This paper answers, for the first time, the issues brought up by Khlif and Achek (2016) on the dearth of studies on auditing inside the FVM and the ownership structure, especially in the ME. Moreover, the study is motivated by the 2005 introduction of “Fair Value Disclosure (FVD)” rules in the form of IAS 39 as well as the later hierarchy disclosure requirements in IFRS 7 and IFRS 13, which were published in 2009 and 2013 respectively. These criteria have greatly raised the audit difficulty and risk of analysis of FV subjective estimates (Alharasis and Mustafa, 2024; Alharasis et al., 2023).

Only two studies looked at how auditing expenses relate to the fair value of financial assets. For instance, Alexeyeva and Mejia-Likosava (2016) concentrated on the EU while Ettredge et al. (2014) applied US GAAP instead of IFRs requirements. But their findings were different. The contradicting results motivate this research to learn more about the influence of FV application on the audit profession. This paper thus presents an updated model for FV auditing costs by investigating the moderating effect of ownership concentration on the share of FV assets (and input levels: Level 1 and aggregated Level 2 & 3) and auditing costs using the principles-based framework (i.e., IFRS) rather than the rules-based framework (i.e., US GAAP). The writers know of no published studies on FVM's post-implementation costs or the effect of ownership concentration. With an eye on Jordan, a developing nation, this study looks at the possible moderating influence of ownership concentration in the relationship between FV and auditing expenses. Because of differences in empirical relationships, institutional inequities between nations generate questions about the relevance of auditing techniques in developed nations. This study thus emphasises on the features of Jordan's capital markets and the difficulties that have emerged since the FVM's first introduction in 2005.

The “Ordinary Least Squares (OLS)” regression approach investigated hypotheses using data from 105 publicly traded Jordanian banking companies from 2005 to 2018. The study found that family ownership reduces the link between FV and auditing costs. The regression test also demonstrates a significant negative relationship between Level 1 assets and auditing costs, indicating that the disputed FVM in family-owned entities has no complex or risky auditing results, whereas the opposite is true for Level 2 and Level 3 assets, which are highly uncertain and complex. This test also confirmed the positive and significant moderating effect of financial institution ownership correlating FV with auditing costs. Looking closely at the effect on hierarchy level inputs, the analysis confirms that financial institutions charged expensive auditing fees, especially in the case of the high ratios of Level 1 assets. This result is consistent with auditing theory since applying the FVM requires extra auditing examinations and qualitative tests. More hours and work are required in audit operations because of the significant ambivalence surrounding FV in expenses which raise auditing costs. While the opposite is confirmed when relating FV Levels 2 and 3 due to the high expertise of such owners on their business. It is, also, confirmed that there is no significant moderation effect of governmental ownership in correlating share of FV assets with auditing costs, due to the high compliance with Jordan's privatization policies and the Jordanian government's minimal contribution to corporate capital. The results of this research can be generalized to broader contexts such as those ME countries with similar cultural, institutional, and auditing/accounting characteristics.

The organisation of this paper is as follows. The institutional context of the study comes second in this section. Section 3 details the contribution of the study together with its theoretical background. The literature review and hypothesis development together make up Section 4. Section 5 details the approaches and data of the research. Section 6 houses the results and analysis. Section 7 addresses sensitivity analysis; Section 8 finishes the paper.

2. Background

Jordan has strong Arab social and international ties. Cultural and political reforms have helped its firms improve their business practices, particularly financial information processing (The World Bank, 2021). Jordan joined the “International Accounting

Standards Committee" (IASC) in early 1988, improving its accounting policies. "Jordanian Association of Certified Public Accountants (JACPA)" was created in 1989. In 1990, the IASC required the JACPA to verify Jordanian firms' IAS implementation. After the 1997 "Companies Law No. 22" was passed, corporations were required to present accounting reports and audited financial data using worldwide accounting and auditing standards. The 1997 "Companies Law" established Jordan's governance strategy. After the "Securities Act No. 23" was passed in 1998, the "Jordan Securities Commission" (JSC) mandated that all listed corporations implement IFRS financial reporting and "International Standards on Auditing (ISA)" auditing. External auditors must protect stakeholders' interests under "Law No. 22/1997" Article 21 (Al-Htaybat, 2018). Jordanian auditors were required to follow the "International Accounting and Auditing Standards" (IAAS) when delivering final opinions on financial statement items by law.

Jordanian financial institutions had to adopt FVA under "IAS 39" by 2005 and measure common assets like "Held for Trading (HFT)" and "Held for Sale (HFS)" using FVA. Jordan's economy has suffered most from FVA implementation. Jordan recognised unrealised gains/losses on fair-valued assets, peaking share values during the economic crisis. Poor investment selections were made in the face of unexpected share prices due to a lack of stock market knowledge (Abdullatif, 2016). Due to the Jordanian economy's export dependence, companies used more "financial assets," which led to negative press coverage of financial instrument losses (Tahat et al., 2018). Growing disclosure requirements about financial asset fair value made FVM implementation harder. The government resolved FV installation concerns on Jordan's stock exchange through the JSC. To lessen economic volatility, the JSC enacted "New fair value regulations" in February 2008 and modified them in 2011 (Alkhazaleh and Marei, 2021; Mansour et al., 2024; Qushtom et al., 2022). In 2014, the JSC passed legislation to oversee external auditors to improve Jordanian firms' FV information during the 'boom years' and before the crash. The 2015 "Jordan 2025" plan stressed the necessity for export growth in the region, notably in the GCC (Alharasis et al., 2024; Alharasis and Alkhwalidi, 2024; Alkhwalidi et al., 2024). Accurate, high-quality financial data could help the government attract foreign investment.

This analysis can be applied to other Middle Eastern countries because Jordan was chosen. Jordan is politically stable despite its violent history. Jordan was one of the first Arab nations to adopt IFRS/ISA financial reporting standards (Al-Htaybat, 2018). The approximately 30-year deployment of IAS/IFRS in Jordan gives useful insights for FVM creation and auditing under diverse conditions (Alharasis et al., 2023b). Starting in 2005, IAS 39 obliged Jordan's banks and other financial institutions to use FVMs. Jordan is the only Arab country that requires listed companies to disclose audit fees in annual reports (since 2001).

4. Literature review and hypothesis development

Post-FVM ownership concentration has become a serious accounting accuracy issue. "Ownership structure" may affect IFRS and auditing expenses, especially in poor countries like Jordan where family ownership is frequent (Alhababsah, 2019; Khlif and Achek, 2016; Alharasis, 2023). This may affect audit prices positively or negatively. Due to "agency problem", FV promotes aggressive earnings management. It may be harder to audit. Auditors take extra steps to verify management's FV metrics are high-quality since ownership concentration emphasises audit quality as a financial performance indicator. Auditor fees rise to reflect work (Sangchan et al., 2020). Some scholars (Badertscher et al., 2011; Karn, 2013; Lin et al., 2017) argue "ownership structure" produces more accurate FVDs because owners are industry specialists. Due to less work, auditors charge less (Griffith et al., 2015). Due to low demand for high-quality audit services, ownership concentration may result in fee discounts, encouraging corporations to hire cheaper auditors.

4.1 Family ownership

In agency theory, the controlling owner can explain different family ownership effects. Researchers underlined the relevance of understanding how family ownership influences agency costs and found that family owners can increase or decrease agency expenses. According to the "alignment viewpoint", family ownership prevents "agency conflict". Major familial owners share interests with minor owners, minimising seizure risk (Chrisman et al., 2004). Niskanen et al. (2010) recommend reducing audit expenses by reducing information asymmetry. Auditing is easier and cheaper. The first view is that long-term family owners may limit management's profitability growth. Family-owned enterprises prosper. To satisfy shareholders, family-owned enterprises rarely seek private gains. Such organisations have better earnings and reduced audit costs due to less audit work and time. Agency theory says family-owned businesses are motivated to solve the agency problem and its negative impacts, which come from majority-minority shareholder disputes. Family-owned enterprises control profits less (Amore et al., 2022). Family-owned enterprises pay less for audits due to higher profit quality (Wang et al., 2006). Family ownership is important in audit fees because most developing nations use family businesses (Alzoubi, 2016). Jordanian society requires family business owners to succeed commercially while keeping their status. If their firm fails, Jordanian family business owners may be ridiculed by competitors. Jordanians know family businesses. These business owners like discussing their stance, safeguarding their company's brand and social status, and minimising the "agency problem". Maintaining commercial and social reputations while reducing the principal-to-principal agency dilemma minimises reputational loss. In Jordan, family names precede company names, making this significant (Alhababsah, 2019). Alzoubi (2016) says family ownership boosts Jordanian financial reporting. To maintain the firm's value and financial success, family owners prioritise family reputation. These ownership forms can limit earnings management.

Another problematic viewpoint is the “entrenchment perspective”. Fan and Wong (2005) and Wang et al. (2006) found that large family ownership increases authority abuse and harms non-familial minor bodies. Family members often fill managerial roles, raising the risk of private gain and stealing other owners' interests. Family ownership may also induce firm management to favour family members over other shareholders. Major and minor owners' differences generate the latter “agency problem type II” situation. To overcome this “agency problem” and safeguard shareholders, audit fees will rise. The second opinion holds that the minority shareholders' agency problem type II (the principle-to-principal agency problem) may allow the firm's more powerful family owners to seize their riches. Due to enhanced profitability management, audit fees for these businesses must be greater to pay auditors for their time and resources in discovering management fraud and misrepresentation (Alhababsah, 2019). According to Jordanian tradition, family business owners want profit and social status. Such proprietors must either pay higher monitoring costs to avoid reputational damage or enhance their financial account accuracy. Given the conflicting empirical literature, the following null hypothesis is formed:

Hypothesis 1: *In Jordanian listed companies, family ownership has no significant impact in the link between the share of fair-valued assets and auditing costs.*

Hypothesis 1 is also investigated for different levels of fair value (Level 1, aggregated levels 2 and 3).

4.2 Government Ownership

State representatives are not regarded as owners since they do not have any personal cash flow rights, making government ownership a unique form of corporate ownership (Niemi, 2005). State ownership, on the other hand, is seen to play a monitoring role in listed companies' corporate governance. To satisfy future market expectations, government officials try to improve the reliability and openness of business financial reporting. Government ownership raises the requirement for greater audit quality to defend the company's brand, protect investors, and attract investment. According to Khlif and Achek (2016) and Lin and Yen (2016), state ownership has a considerable impact on the link between IFRS and auditing costs. Because active markets are often absent and governments claim to conduct quality audits, external auditors in Jordan encounter significant challenges when assessing FV figures (Abdullatif, 2016). Furthermore, Jordan's government's top aim is to attract international investment through offering good “signals” of the trustworthiness of companies' auditing reports (Alhababsah, 2019). As a result, Jordan's government has worked hard to adopt the FVM and build a reliable framework. Jordanian government ownership operates in the best interests of investors. Government representatives will almost certainly either pay more monitoring expenses to offset the “agency problem” (more costs) or improve the peculiarity of their publicly available financial accounts to provide favorable “signals” to investors (lower costs). Given the conflicting empirical literature, the following null hypothesis is formed:

Hypothesis 2: *In Jordanian listed companies, government ownership has no statistically significant impact on the relationship between the share of fair-valued assets and auditing costs.*

Hypothesis 2 is also investigated for different levels of fair value (Level 1, aggregated levels 2 and 3).

4.3 Financial Institutional ownership

Institutional ownership improves firm governance (Yao et al., 2015). Institutional investors want better manager oversight. They can influence management to improve owners' wealth. This type of ownership may also reduce managers' actions while reviewing FVE in various ways, such as using prestigious auditors as vital monitoring devices (high costs scenario) or minimising the “agency problem” (low costs scenario) (Alhababsah, 2019). The first scenario suggests that Jordanian enterprises' FVM adoption increases external auditors' complexity and risk, raising audit fees. The reliability and clarity of management's FVEs are compromised. The FVM's prominence in several IFRSs may call Jordanian enterprises' financial reporting into doubt (Abdulatif, 2016). IFRS causes most problems (Khlif and Achek, 2016). Jordanian company managers may want quality auditing to verify FVs. Lower agency costs allow businesses to get funding from lenders, especially banks, Jordan's main source of capital (Nawaiseh et al., 2019). However, owners reduce income management costs in the latter situation by negatively correlating with income management routines caused by the disparity between managers and owners, reducing auditing costs. Given the conflicting empirical literature, the following null hypothesis is formed:

Hypothesis 3: *Financial institutional ownership has no impact in relating the share of fair-valued assets and auditing costs of the listed firms in Jordan.*

Hypothesis 3 is also examined for different levels of fair value (Level 1, aggregated levels 2 and 3).

5. Data and sample production

5.1. Data collection and range

From 2005 to 2018, Jordanian companies' annual reports on the “Amman Stock Exchange” website provided the data. This study began in 2005 when ISA 39 legalised FV for Jordanian financial assets, followed by an IFRS 7 adjustment in 2009.

According to "IAS 39 in 2005, IFRS 7 in 2009, and IFRS 13 in 2013," the study time is the oldest and latest FVD application duration. Post-2018 data is unavailable or disrupted due to COVID-19. According to Panel A of Table 1, the sample consisted of 235 firms excluding 13 firms with missing data, 24 firms not in finance, 72 firms in industries with fewer than 10 businesses (Chi & Chin, 2011), and 21 firms with missing FVDs for financial assets. The sample size was 105 enterprises. Panel B separates the final recognised firms into major sub-industries.

Table 1**Sampling Procedure**

<i>Panel A: Selection of Sample</i>		
	Total Firms	Firm-year observations
<i>initial sample</i>	235	3290
<i>(-) Companies with missing data</i>	(13)	(182)
<i>(-) Manufacturing and service industry</i>	(103)	(1442)
<i>(-) Firms with non-FVD</i>	(14)	(196)
<i>Total final accepted sample</i>	105	1470
<i>Panel B: Industry Distribution</i>		
Sub-Sector	Total Accepted observations	Per cent
Real Estate	392	26.67
Diversified Financial Services	532	36.19
Banks	224	15.24
Insurance	322	21.90
Total	1470	100

5.2. Variable measurement and research design**5.2.1. Models development**

This study expands quantitative audit price studies (Ettredge et al., 2014; Alexeyeva & Mejia-Likosova, 2016; Sangchan, 2020). New variables are added to auditing FVMs as proxies for "ownership structure", which are used to test hypotheses regarding how corporate ownership structure moderates the link between FVM and audit fees. Previous audit FVMs were upgraded into these equations (Table 2 defines variables):

Baseline Models:

$$\text{Model (1): } Aud_Fee = \delta_0 + \delta_1 Ln_ASSET + \delta_2 SUB + \delta_3 ROI + \delta_4 SALE_GROWTH + \delta_5 RECINV + \delta_6 AUDITOR_BIG4 + \delta_7 AUDIT_TENURE + \delta_8 AUDIT_OPINION + IndFE + \varepsilon \quad (1)$$

$$\text{Models (2, 3 \& 4): } Aud_Fee = \delta_0 + \delta_1 FAMILY (or\ GOV (or\ FIN)) + \delta_2 Ln_ASSET + \delta_3 SUB + \delta_4 ROI + \delta_5 SALE_GROWTH + \delta_6 RECINV + \delta_7 AUDITOR_BIG4 + \delta_8 AUDIT_TENURE + \delta_9 AUDIT_OPINION + IndFE + \varepsilon \quad (2-4)$$

Hypothesis 1 (H₁): Family ownership

$$\text{Model (5): } Aud_Fee = \delta_0 + \delta_1 FV_TA + \delta_2 FAMILY + \delta_3 FV_TA * FAMILY + \delta_4 Ln_ASSET + \delta_5 SUB + \delta_6 ROI + \delta_7 SALE_GROWTH + \delta_8 RECINV + \delta_9 AUDITOR_BIG4 + \delta_{10} AUDIT_TENURE + \delta_{11} AUDIT_OPINION + IndFE + \varepsilon \quad (5)$$

$$\text{Model (6): } Aud_Fee = \delta_0 + \delta_1 FV1_TA + \delta_2 FV2_TA + \delta_3 FV3_TA + \delta_4 FAMILY + \delta_5 (FV1_TA + \delta_1 FV2_TA + \delta_1 FV3_TA) * FAMILY + \delta_6 Ln_ASSET + \delta_7 SUB + \delta_8 ROI + \delta_9 SALE_GROWTH + \delta_{10} RECINV + \delta_{11} AUDITOR_BIG4 + \delta_{12} AUDIT_TENURE + \delta_{13} AUDIT_OPINION + IndFE + \varepsilon \quad (6)$$

Hypothesis 2 (H₂): Government ownership

$$\text{Model (7): } Aud_Fee = \delta_0 + \delta_1 FV_TA + \delta_2 GOV + \delta_3 FV_TA * GOV + \delta_4 Ln_ASSET + \delta_5 SUB + \delta_6 ROI + \delta_7 SALE_GROWTH + \delta_8 RECINV + \delta_9 AUDITOR_BIG4 + \delta_{10} AUDIT_TENURE + \delta_{11} AUDIT_OPINION + IndFE + \varepsilon \quad (7)$$

$$\text{Model (8): } Aud_Fee = \delta_0 + \delta_1 FV1_TA + \delta_2 FV2_TA + \delta_3 FV3_TA + \delta_4 GOV + \delta_5 (FV1_TA + \delta_1 FV2_TA + \delta_1 FV3_TA) * GOV + \delta_6 Ln_ASSET + \delta_7 SUB + \delta_8 ROI + \delta_9 SALE_GROWTH + \delta_{10} RECINV + \delta_{11} AUDITOR_BIG4 + \delta_{12} AUDIT_TENURE + \delta_{13} AUDIT_OPINION + IndFE + \varepsilon \quad (8)$$

Hypothesis 3 (H₃): Institutional ownership

$$\text{Model (9): } Aud_Fee = \delta_0 + \delta_1 FV_TA + \delta_2 FIN + \delta_3 FV_TA * FIN + \delta_4 Ln_ASSET + \delta_5 SUB + \delta_6 ROI + \delta_7 SALE_GROWTH + \delta_8 RECINV + \delta_9 AUDITOR_BIG4 + \delta_{10} AUDIT_TENURE + \delta_{11} AUDIT_OPINION + IndFE + \varepsilon \quad (9)$$

$$\text{Model (10): } Aud_Fee = \delta_0 + \delta_1 FV1_TA + \delta_2 FV2_TA + \delta_3 FV3_TA + \delta_4 FIN + \delta_5 (FV1_TA + \delta_1 FV2_TA + \delta_1 FV3_TA) * FIN + \delta_6 Ln_ASSET + \delta_7 SUB + \delta_8 ROI + \delta_9 SALE_GROWTH + \delta_{10} RECINV + \delta_{11} AUDITOR_BIG4 + \delta_{12} AUDIT_TENURE + \delta_{13} AUDIT_OPINION + IndFE + \varepsilon \quad (10)$$

Building on previous analyses, this study used “robust OLS regression” with “year and industry fixed effect”. Research data (2005-2018) must meet four regression analysis test requirements for analysis. To verify regression assumptions (first, normality, linearity, homoscedasticity, and multicollinearity), the data is examined (Appendix A). The current study examines control variables LN_ASSET, SUB, ROI, SALE_GROWTH, RECINV, AUDITOR_BIG4, AUDIT_TENURE, and AUDIT_OPINION from prior studies (Alhababsah, 2019). Table 2 defines all variables.

Table 2
Variables measurements

Variable	Measurement
<i>Aud_Fee</i>	The natural log of auditing costs.
<i>FV_TA</i>	Firm's total Fair-valued assets deflated by total assets.
<i>FV1_TA, FV23_TA</i>	firms' total Fair-valued assets using Level 1, Level 2&3 FV inputs deflated by total assets.
<i>FAMILY</i>	The percentage of the number of total shares held by family members of the total number of a firm's shares.
<i>GOV</i>	The percentage of the number of total shares held by government investors of the total number of a firm's shares.
<i>FIN</i>	The percentage of the number of total shares held by finance institutional investors of the total number of a firm's shares.
<i>LN_ASSET</i>	The natural Log of a firm's total assets.
<i>SUB</i>	The number of firm's subsidiaries.
<i>ROI</i>	The net income by total assets.
<i>SALE_GROWTH</i>	The current year sales to last year sales.
<i>RECINV</i>	Sum of total receivables and inventory divided by total assets.
<i>AUDITOR_BIG4</i>	Dummy variable coded as 1 if the audit firm is one of the Big 4 audit firms (PwC, KPMG, Deloitte, and E&Y), 0 otherwise.
<i>AUDIT_TENURE</i>	Auditor tenure of three years, coded 1 if the audit firm did not change, 0 otherwise.
<i>AUDIT_OPINION</i>	Dummy variable coded 1 if the company receives an unqualified opinion, 0 otherwise.

6. Analysis and Results

6.1. Descriptive and correlation statistics

Table 3 displays regression variable descriptive statistics. The dependent variable is audit fees. *Aud_Fee* has a median of 9.398 (9.196) and a standard deviation of 1.085. Jordanian companies have 15% fair-valued assets (*FV_TA*), according to the independent variable. The mean (median) percentage of total fair-valued assets by input hierarchy levels “Level 1” (*FV1_TA*) and Levels 2 and 3 aggregated (*FV23_TA*) is 0.124 (0.055) and 0.021 (0.000). Jordanian enterprises had 12% “Level 1” fair-valued assets, according to the research. Table 3 displays regression variable descriptive statistics. The dependent variable is audit fees. *Aud_Fee* has a median of 9.398 (9.196) and a standard deviation of 1.085. Jordanian companies have 15% fair-valued assets (*FV_TA*), according to the independent variable. The mean (median) percentage of total fair-valued assets by input hierarchy levels “Level 1” (*FV1_TA*) and Levels 2 and 3 aggregated (*FV23_TA*) is 0.124 (0.055) and 0.021 (0.000). Jordanian enterprises had 12% "Level 1" fair-valued assets, according to the research.

Table 3
Descriptive Statistics

Variable	Mean	Median	Std. Dev.
<i>Aud_Fee</i>	9.398	9.196	1.085
<i>FV_TA</i>	0.148	0.073	0.180
<i>FV1_TA</i>	0.124	0.055	0.160
<i>FV23_TA</i>	0.021	0.000	0.061
<i>FAMILY</i>	0.222	0.166	0.217
<i>GOV</i>	0.050	0.000	0.119
<i>FIN</i>	0.288	0.200	0.274
<i>LN_ASSET</i>	17.330	16.913	1.972
<i>SUB</i>	2.254	1.000	3.458
<i>ROI</i>	0.062	0.028	0.956
<i>SALE_GROWTH</i>	1.636	1.007	3.357
<i>RECINV</i>	0.263	0.176	1.022
<i>AUDITOR_BIG4</i>	0.405	0.000	0.491
<i>AUDIT_TENURE</i>	0.533	1.000	0.499
<i>AUDIT_OPINION</i>	0.877	1.000	0.329
<i>N</i>	1470		

All variables are defined in Table 2.

Table 4 exhibits dependent and independent variable “Spearman correlation matrix” results. The multicollinearity test ensures that regression model independent variables are uncorrelated. Each model's mean VIF is less than 2, indicating no serious multicollinearity issues.

Table 4
Correlation matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 <i>Aud_Fee</i>	1.000														
2 <i>FV</i>	-0.181***	1.000													
3 <i>FVI</i>	-0.215***	0.921***	1.000												
4 <i>FV23</i>	0.050	0.386***	0.015	1.000											
5 <i>FAMILY</i>	-0.132***	0.041	0.0565*	-0.0778**	1.000										
6 <i>GOV</i>	0.0934***	-0.150***	-0.152***	-0.032	-0.018	1.000									
7 <i>FIN</i>	0.267***	0.002	-0.028	0.0790**	-0.431***	0.0693**	1.000								
8 <i>Ln_ASSET</i>	0.830***	-0.269***	-0.316***	0.0543*	-0.105***	0.106***	0.186***	1.000							
9 <i>SUB</i>	0.229***	-0.0787**	-0.0754**	-0.023	0.009	0.031	-0.015	0.250***	1.000						
10 <i>ROI</i>	0.330***	-0.005	0.014	-0.041	0.0554*	0.0760**	0.115***	0.357***	-0.161***	1.000					
11 <i>SALE_GROWTH</i>	-0.0752**	0.0515*	0.0554*	-0.001	0.018	-0.018	0.0735**	-0.0558*	-0.006	0.0536*	1.000				
12 <i>RECINV</i>	0.0589*	0.035	-0.022	0.161***	-0.049	0.003	0.001	0.041	-0.0588*	0.0766**	-0.015	1.000			
13 <i>AUDITOR_BIG4</i>	0.575***	-0.159***	-0.209***	0.0894**	-0.129***	0.133***	0.289***	0.514***	0.0628*	0.223***	-0.0614*	0.0652*	1.000		
14 <i>AUDIT_TENURE</i>	0.167***	0.021	0.012	0.024	-0.041	-0.036	0.105***	0.131***	0.0879***	0.013	-0.035	0.020	-0.028	1.000	
15 <i>AUDIT_OPINION</i>	-0.0531*	-0.138***	-0.130***	-0.0519*	-0.123***	-0.0573*	-0.125***	-0.044	0.147***	-0.235***	-0.006	-0.029	-0.0897***	0.015	1.000

"This table presents Spearman correlation matrix results amongst the dependent and independent variables."

"All continuous variables are winsorized at the 1% and 99% levels each year to reduce the influence of potential outliers."

"***, * Correlation is significant at the 0.01, 0.05 level (2-tailed), respectively."

6.2. t-test analysis

The FAM_DUM variable was used to divide the sample into family-owned and non-family-owned enterprises for the t-test analysis in Table 5 (Hay et al., 2006). The average charge difference is large (t-value = 2.697), indicating that non-family-owned firms pay more for auditing. The lack of agency means that most family-owned businesses pay lower audit fees (Abdullatif, 2016). Such organisations may generate higher-quality earnings (Sánchez et al., 2007), reducing auditing costs. Due to reduced audit time and effort (ALhababsah, 2019; Ali et al., 2007; Nawaieh, 2019; Jiraporn & DaDalt, 2009; Wang, 2006). Family-owned firms had a much lower mean FV_TA differential (t-value = -2.464). The family sample had a higher mean of "Level 1" assets (t-value = -2.4636) when examining FV hierarchy inputs Levels 1, 2, and 3. This is due to the nature of family firm assets and the fact that most Jordanian audit clients are closely owned enterprises. Up to stages 2 and 3, non-family enterprises showed a substantially higher uncertain FV (t-value = 2.0748). These findings suggest that firms with larger disparity or "agency conflict," particularly non-familial organisations, use degrees 2 and 3 (Lin et al., 2017).

Table 5
t-test results

Variable	Family firm (FAM_DUM=1) N = 908 firm	Non-Family firm (FAM_DUM=0) N = 562 firm	t - value(sig)
	Mean		
<i>Aud_Fee</i>	9.338	9.495	(2.6972)***
<i>FV_TA</i>	0.133	0.160	(-2.4636)**
<i>FV1_TA</i>	0.134	0.108	(-3.0655)***
<i>FV23_TA</i>	0.020	0.025	(2.0748)**

"Family_Dum = Dummy variable would take one if a family or individual hold 10% or more of equity, 0 otherwise."

6.3. Regression outcomes

Table 6 and Table 7 present OLS regression results. The tables show that each model has 80% to 81% explanatory power and significant P-values at 0.01. In Table 6, Model 1 presents the baseline model's control variables. All models' control variable coefficients had the predicted magnitude and sign, supporting past studies. Table 6 models 2-4 explain how each ownership characteristic affects audit fees. The study found that family (financial institution) ownership negatively (positively) affects audit fees (Coeff. = -0.260, t = -4.42; Coeff. = 0.202, t = 4.08), while government ownership does not.

Model 5 of Table 7 shows that "family ownership" negatively modifies the ratio of fair-valued assets and auditing costs (Coeff. = -0.662, t = -2.07). According to the alignment approach, good family ownership regulation reduces managers' power to affect profitability (Jiraporn & DaDalt, 2009; Anderson & Reeb, 2003). Agency theory states that "ownership structure" reduces the "agency problem" (Lim et al., 2014; Chrisman et al., 2004; Niskanen, 2010). Family-owned enterprises are especially motivated to address the "agency problem" and its potential impact (Ali et al., 2007). Family-owned businesses had less profit manipulation, reducing auditing costs (ALI et al. 2007; Jiraporn & DaDalt 2009; Wang 2006). Due to reduced information asymmetry, audits will be simpler and cheaper, reducing demand for higher-quality audit services (Niskanen et al. 2010). Gebhardt and Novotny-Farkas (2011), Badertscher et al. (2011), and Lin et al. (2011) found that ownership concentration makes IFRS/IAS bad for income smoothing. The data supports Tama-Sweet and Zhang (2015), who found that ownership concentration improves FV measures when owners are knowledgeable and skilled. Regression analysis confirmed Yao et al.'s (2015) findings because ownership concentration is a key corporate governance indicator (Shleifer & Vishny, 1997). They found that corporate governance lowers audit fees for FVM companies.

Model 6 shows that moderate (familial ownership) on the FV hierarchy negatively (positively) affects Level 1 (Levels 2 and 3) assets and auditing expenses. Coeff. = -1.715; t = -5.06 (1.669; 2.02). The univariate analysis showed that family firms used "Level 1" assets more than non-family enterprises. For pooled Level 2 and Level 3 assets, the opposite is true. Lin et al. (2017) found that corporate governance's strong correlation with FV hierarchy levels negatively affects financial restatement. Agency theory states that Tier 1 assets have no audit risk or complexity, but hazards increase with subjective input levels 2 and 3 (Sangchan et al., 2020). This reduces asymmetric knowledge in family-owned enterprises, improving corporate governance. The results match Alhababsah's (2016) Level 1 asset findings, showing that Jordanian family owners are trying to increase their firms' sustainability while maintaining their social status.

Results from regression complement prior study (Arrondo-García et al., 2016) demonstrating smaller, less debt-laden family businesses. Jordanian business owners are more willing to boast and work hard to maintain their reputation because competition can humiliate them if their firm fails. They reduce the "agency problem" and produce high-quality fair value estimations (Alhababsah, 2019). Family directors' experience improves supervision, agency conflict, and financial reporting (Jiraporn and DaDalt, 2009; Wang et al., 2006). Auditor theory suggests that high-quality information costs less to audit since it takes less time and effort (Liu, 2021). Family ownership decreases FVM and audit fees, contradicting H1.

Table 6
Result of Regression

DV = <i>Aud_Fee</i> Variables	Model (1) Baseline model Coeff. (Robust t)	Model (2) Coeff. (Robust t)	Model (3) Coeff. (Robust t)	Model (4) Coeff. (Robust t)
<i>Intercept</i>	4.852 (20.75)***	4.968 (21.78)***	4.857 (20.51)***	4.804 (20.64)***
<i>FAMILY</i>		-0.260 (-4.42)***		
<i>GOV</i>			0.036 (0.260)	
<i>FIN</i>				0.202 (4.08)***
<i>Ln ASSET</i>	0.217 (15.46)***	0.212 (15.59)***	0.217 (15.29)***	0.218 (15.70)***
<i>SUB</i>	0.034 (6.50)***	0.036 (6.66)***	0.034 (6.53)***	0.034 (6.50)***
<i>ROI</i>	0.000 (0.760)	0.000 (1.130)	0.000 (0.730)	0.000 (0.850)
<i>SALE_GROWTH</i>	-0.002 (-0.470)	-0.002 (-0.480)	-0.002 (-0.470)	-0.004 (-0.810)
<i>RECINV</i>	0.083 (1.170)	0.060 (0.860)	0.084 (1.200)	0.083 (1.190)
<i>AUDITOR_BIG4</i>	0.302 (9.87)***	0.286 (9.26)***	0.301 (9.88)***	0.274 (8.83)***
<i>AUDIT_TENURE</i>	0.077 (2.62)***	0.071 (2.40)**	0.078 (2.63)***	0.065 (2.23)**
<i>AUDIT_OPINION</i>	-0.108 (-2.35)**	-0.088 (-1.920)*	-0.109 (-2.39)**	-0.120 (-2.60)***
<i>Robust</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Year & Sub-sector FE</i>	<i>Controlled</i>	<i>Controlled</i>	<i>Controlled</i>	<i>Controlled</i>
<i>N</i>	1470	1470	1470	1470
<i>F - Statistic</i>	(24)***	(25)***	(25)***	(25)***
<i>R²</i>	80%	80%	80%	80%
<i>Mean VIF</i>	1.88	1.85	1.86	1.86

***, **, * Indicate statistical significance at the 0.01, 0.05, and 0.10 percent levels, respectively, using a two-tailed test.

Modelling 7 and 8 show that government concentration has no effect on the link between fair-valued assets and input levels (Level 1, aggregated Level 2, and 3). Coeff. = 0.632, t = 1.000 (0.662, 0.500, and 0.913, 0.400). When the FVM is used, government ownership does not increase client auditing expenses. Government ownership is the lowest in our analysis (see Table 3), at 5% of the sample. In regression analysis, the factor with the lowest mean will generally have less explanatory power. Jordan's 1990 privatisation and economic reforms have restricted government capital market participation. Analysis accepts null hypothesis (H2). Model 9 shows that financial institution ownership positively moderates fair-valued asset ratio and auditing costs (Coeff. = 0.579, t = 2.23). Financial firms prioritise short-term gains. A larger "agency problem" is expected. Institutional investors support corporate governance by scrutinising management's financial reporting (Alhababsah, 2019). Monitoring expenses rise when managers demand high-quality audits (Nawaiseh et al., 2019). Valuation approaches complicate accounting (Christensen & Nikolaev 2013; Glover et al., 2019). Judgement and disclosures are needed for FVM audits. This complicates financial statements for auditors, raising audit expenses (Bell & Griffin, 2012; Griffith et al., 2015). Agency and signal theories are supported by the fact that financial institutions prefer Big Four audit companies for high-quality audits. To ensure finance and international investment, they send good signals to shareholders. This supports Badertscher and Lin (2011), who found that agency expenses decrease following an IAS with ownership concentration. The analysis confirmed Yao et al. (2015): corporate governance raises FVM auditing expenses.

Model 10 shows how institutional ownership moderates FV input hierarchies. The coefficient for "Level 1" assets was 0.823 (t = 2.93), positive and significant. "Level 1" assets dominate Jordanian FV portfolios, explaining the current finding. Ettredge et al. (2014) state that Jordanian companies using "Level 1" increase auditing costs since the higher average FV mean is expected to explain auditing charges. The descriptive data above show that "Level 1" averages more than Levels 2 and 3 (Table 3). Thus, FIN moderates the relationship between auditing expenses and assets with the lowest realisable FV (Levels 2 and 3). Lin et al. (2017) revealed that enterprise ownership and FV hierarchy levels interact significantly and negatively affect financial restatement. High financial institution ownership reduces asymmetric knowledge, which can improve corporate governance. This reduces the "agency problem"-induced repatriation risk after the FV hierarchy's assets are revealed (Lin et al., 2017). Managers will aim for high audit quality to reduce agency expenses and increase funding continuity. Analysis contradicts the null hypothesis (H3).

Table 7
Result of Regression

DV = <i>Aud_Fee</i>	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)	Model (10)
Variables	Coeff. (Robust t)	Coeff. (Robust t)	Coeff. (Robust t)	Coeff. (Robust t)	Coeff. (Robust t)	Coeff. (Robust t)
<i>Intercept</i>	4.922 (21.58)***	4.883 (21.33)***	4.715 (20.16)***	4.629 (19.73)***	4.674 (20.24)***	4.546 (19.40)***
<i>FV</i>	0.572 (5.62)***		0.245 (2.94)***		0.049 (-0.400)	
<i>FV1</i>		0.813 (7.39)***		0.436 (4.58)***		0.160 (1.150)
<i>FV23</i>		-0.594 (-2.35)**		-0.286 (-1.540)		0.177 (0.790)
<i>FAMILY</i>	-0.058 (-0.840)	-0.073 (-1.040)				
<i>FV * FAMILY</i>	-1.338 (-4.51)***					
<i>FV1 * FAMILY</i>		-1.715 (-5.06)***				
<i>FV23 * FAMILY</i>		1.669 (2.02)**				
<i>GOV</i>			0.066 (0.400)	0.099 (0.600)		
<i>FV * GOV</i>			0.632 (1.000)			
<i>FVA1 * GOV</i>				0.662 (0.500)		
<i>FVA23 * GOV</i>				0.913 (0.400)		
<i>FIN</i>					0.107 (-1.680)	0.132 (2.05)**
<i>FV * FIN</i>					0.579 (2.23)**	
<i>FVA1 * FIN</i>						0.823 (2.93)***
<i>FVA23 * FIN</i>						-1.455 (-2.19)**
<i>Ln_ASSET</i>	0.211 (15.81)***	0.213 (16.00)***	0.223 (16.10)***	0.228 (16.42)***	0.225 (16.44)***	0.232 (16.73)***
<i>SUB</i>	0.036 (6.59)***	0.035 (6.41)***	0.034 (6.48)***	0.033 (6.33)***	0.034 (6.59)***	0.034 (6.51)***
<i>ROI</i>	0.000 (1.110)	0.000 (0.530)	0.000 (0.610)	0.000 (0.220)	0.000 (0.790)	0.000 (0.390)
<i>SALE_GROWTH</i>	-0.003 (-0.610)	-0.003 (-0.570)	-0.003 (-0.590)	-0.003 (-0.620)	-0.004 (-0.950)	-0.005 (-1.120)
<i>RECINV</i>	0.076 (1.080)	0.093 (1.340)	0.110 (1.580)	0.130 (1.830)	0.105 (1.500)	0.137 (1.950)
<i>AUDITOR_BIG4</i>	0.300 (9.79)***	0.314 (10.32)***	0.302 (9.97)***	0.310 (10.21)***	0.287 (9.18)***	0.295 (9.50)***
<i>AUDIT_TENURE</i>	0.066 (2.24)**	0.060 (2.04)**	0.068 (2.30)**	0.063 (2.12)**	0.056 (1.900)*	0.040 (1.360)
<i>AUDIT_OPINION</i>	-0.115 (-2.48)**	-0.111 (-2.39)**	-0.125 (-2.72)***	-0.129 (-2.81)***	-0.127 (-2.71)***	-0.130 (-2.77)***
<i>Robust Year & Sub-sector FE</i>	Yes Controlled	Yes Controlled	Yes Controlled	Yes Controlled	Yes Controlled	Yes Controlled
<i>N</i>	1470	1470	1470	1470	1470	1470
<i>F - Statistic</i>	(27)***	(29)***	(27)***	(29)***	(27)***	(29)***
<i>R²</i>	80.28%	81%	80%	80%	80.01%	80%
<i>Mean VIF</i>	1.95	1.96	1.89	1.94	1.96	2.01

***, **, * Indicate statistical significance at the 0.01, 0.05, and 0.10 percent levels, respectively, using a two-tailed test."

7. Sensitivity test

7.1. Control endogeneity problem

Our "Heckman two-stage" estimate accounts for the Big 4's likely self-selection bias in major auditing cost models. After controlling for "self-selection bias," the second-stage estimation's untabulated results remain unaltered.

7.2. Re-testing with the existence of the FVA variable

Equations (2, 4, and 6) are thus altered by the inclusion of FV “coded 1 if the firm's assets are declared in FV, 0 otherwise”. Untabulated regression results are robust when the independent variable is specified in this alternative way.

7.3. Excluding the “global financial crisis” of 2008

After omitting 105 firm-year observations during the 2008 crisis, the hypotheses were retested (Miranda-Lopez & Valdovinos-Hernandez, 2019). The untabulated analyses match the original analysis.

7.5. A Different Method to Figure Out Audit Fees

The “log of total audit fees” was measured differently in the second analysis. Instead of the main measure, audit fees were lowered by total assets in this robustness analysis. Both alternative measures' analyses match the primary study, proving its accuracy (see Appendix B).

7.4. Re-test controlled by firm fixed effects

Firm fixed effects allowed the hypotheses to be re-tested under control to consider probable variations in audit fees by companies. The results match those reported in the main study, therefore validating the major research conclusions (see Appendix C).

8. Conclusion

This article investigates using data from 105 Jordanian companies between 2005 and 2018 the moderating effect of "ownership structure" on the link between the share of fair-value assets on auditing expenses. The OLS model shows that family ownership produces a weak correlation among the percentage of fair-value assets and auditing expenses; on the other hand, financial institution ownership characteristics provide the opposite observation. Family ownership for "Level 1" assets has a clearly negative moderating effect; conversely, the extremely uncertain FV assets "Level 2 & 3" have opposite effects. Financial institutional ownership shows that greater auditing expenses follow from auditing FV Level 1. Regarding FV Levels 2 and 3, financial institutional ownership had a quite negative moderating influence. Government ownership has no appreciable moderating influence proven.

The results of this study give standard-setters and legislators current empirical data on the post-implementation FVD expenses in a non-Western environment. Moreover, the results help regulatory authorities monitor and control the audit profession, therefore affecting less verifiable FV under consideration and maybe causing auditing issues. The sample size and period of the study could restrict our findings. More proxies for the FVM and corporate governance concerns could be used in next studies. Furthermore, it would be advisable to increase the duration of the research to evaluate the effect of economic uncertainty during the COVID-19 epidemic.

Acknowledgement

This research was funded through the annual funding track by the Deanship of Scientific Research, from the vice presidency for graduate studies and scientific research, King Faisal University, Saudi Arabia [Grant No. KFU241490].

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Appendix A

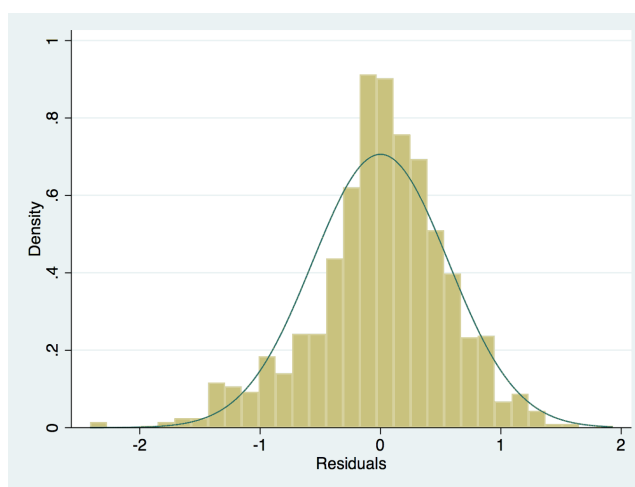
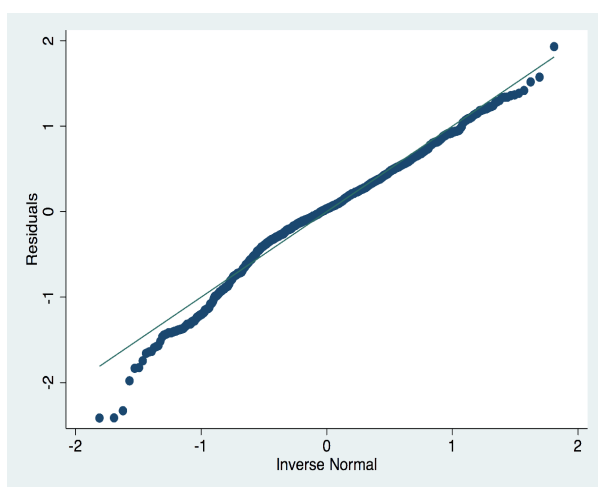


Fig. A1. Q-norm residual

Fig. A2. Histogram residual

Appendix B

A Different Method to Figure Out Audit Fees

DV = <i>AUDFEE/TA</i>	Model (5)	Model (7)	Model (9)
Variables	Coeff. (Robust t)	Coeff. (Robust t)	Coeff. (Robust t)
<i>Intercept</i>	0.013	0.013	0.013
	(15.51)***	(15.26)***	(15.75)***
<i>FV</i>	0.001	0.000	0.000
	(3.87)***	(2.76)***	(1.920)*
<i>FAMILY</i>	0.000		
	(1.050)		
<i>FV * FAMILY</i>	-0.000		
	(-2.44)**		
<i>GOV</i>		-0.001	
		(-2.68)***	
<i>FV * GOV</i>		0.001	
		(1.300)	
<i>FIN</i>			0.000
			(0.130)
<i>FV * FIN</i>			0.000
			(1.660)*
<i>Ln_ASSET</i>	-0.001	-0.001	-0.001
	(-15.30)***	(-15.00)***	(-15.34)***
<i>SUB</i>	0.000	0.000	0.000
	(3.26)***	(2.79)***	(3.14)***
<i>ROI</i>	0.000	0.000	0.000
	(0.300)	(0.070)	(0.090)
<i>SALE_GROWTH</i>	0.000	0.000	0.000
	(1.920)*	(1.99)**	(1.910)*
<i>RECINV</i>	0.000	0.000	0.000
	(1.470)	(1.540)	(1.380)
<i>AUDITOR_BIG4</i>	0.000	0.000	0.000
	(4.15)***	(4.70)***	(3.18)***
<i>AUDIT_TENURE</i>	0.000	0.000	0.000
	(0.040)	(0.050)	(0.230)
<i>AUDIT_OPINION</i>	0.000	0.000	0.000
	(1.570)	(1.780)	(2.16)**
Robust	Yes	Yes	Yes
Year & Sub-sector	Controlled	Controlled	Controlled
<i>N</i>	1470	1470	1470
<i>F - Statistic</i>	(26)***	(26)***	(26)***
<i>R²</i>	52.32%	52.26%	52.54%
<i>Mean VIF</i>	2.25	2.23	2.27

Appendix C

Re-test controlled by firm fixed effects

DV = <i>Aud_Fee</i> Variables	Model (5) Coeff. (Robust t)	Model (7) Coeff. (Robust t)	Model (9) Coeff. (Robust t)
<i>Intercept</i>	5.599 (12.70)***	5.729 (12.69)***	5.721 (12.68)***
<i>FV</i>	0.292 (8.79)***	0.221 (7.49)***	0.191 (4.65)***
<i>FAMILY</i>	0.152 (1.400)		
<i>FV * FAMILY</i>	-0.217 (-2.24)**		
<i>GOV</i>		0.027 (0.180)	
<i>FV * GOV</i>		0.120 (1.060)	
<i>FIN</i>			-0.118 (-1.040)
<i>FV * FIN</i>			0.150 (1.760)*
<i>Ln_ASSET</i>	0.177 (6.97)***	0.173 (6.68)***	0.175 (6.76)***
<i>SUB</i>	0.032 (3.34)***	0.033 (3.40)***	0.033 (3.42)***
<i>ROI</i>	0.000 (2.17)**	0.000 (1.950)*	0.000 (1.920)*
<i>SALE_GROWTH</i>	-0.009 (-2.09)**	-0.008 (-1.97)**	-0.008 (-1.97)**
<i>RECINV</i>	0.019 (0.260)	0.003 (0.040)	0.028 (0.370)
<i>AUDITOR_BIG4</i>	0.272 (7.46)***	0.273 (7.43)***	0.268 (7.26)***
<i>AUDIT_TENURE</i>	0.003 (0.120)	0.006 (0.220)	0.005 (0.200)
<i>AUDIT_OPINION</i>	0.090 (2.05)**	0.079 (1.810)*	0.082 (1.830)*
Robust	Yes	Yes	Yes
Year & Firm FE	Controlled	Controlled	Controlled
<i>N</i>	1470	1470	1470
<i>F - Statistic</i>	(115)***	(115)***	(115)***
<i>R²</i>	90%	90%	90%
<i>Mean VIF</i>	2.66	2.77	2.76



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