International Journal of Management and Sustainability
2023 Vol. 12, No. 4, pp. 518-534
ISSN(e): 2306-0662
ISSN(p): 2306-9856
DOI: 10.18488/11.v12i4.3535

The relationship between director's compensation and audit fee: Empirical evidence from developing countries

Ardianto Ardianto[1+]
Fiona Vista Putri[2]
Nadzri Ab Ghani[3]
Agus Widodo Mardijuwono[4]
Hidayati Nur Rochmah[5]
Roro Widya Ningtyas Soeprajitno[6]

[1,2,4,5,6]*Department of Accountancy, Universitas Airlangga, Surabaya 60286, Indonesia.*
[1]*Email: ardianto@feb.unair.ac.id*
[2]*Email: fiona.vista.putri-2021@feb.unair.ac.id*
[4]*Email: agus-w-m@feb.unair.ac.id*
[5]*Email: hidayati.nur.rochmah-2020@feb.unair.ac.id*
[6]*Email: rorowidya239@gmail.com*
[3]*Universiti Teknologi MARA, Kedah, Merbok, Malaysia.*
[3]*Email: nadzri.abghani@uitm.edu.my*

(+ Corresponding author)

Article History
Received: 1 December 2022
Revised: 15 June 2023
Accepted: 22 September 2023
Published: 29 November 2023

Keywords
Audit fee
Developing countries
Directors' compensation
Governance.

ABSTRACT

The present study investigates the correlation between director remuneration and audit fees within the context of a corporation operating in a developing nation. Additionally, this study investigates whether the extent of national consumption strengthens the association between director compensation and audit fees. This study employed the Ordinary Least Square (OLS) method to analyses a dataset consisting of 3,417 samples of non-financial firm data reported on the stock exchanges of Indonesia and Malaysia. The observation period for this study spanned from 2015 to 2019. The findings of this study indicate a substantial positive relationship between director salaries and audit fees in both countries. Furthermore, the evidence shows that the level of household consumption in a country will increase because of the positive relationship between director compensation and audit fees. In addition, CEOs and CFOs who have experience working as auditors carry a more negligible risk for the company. Meanwhile, directors' overcompensation will pose a greater risk for the company. This study is robust based on sensitivity testing using Coarsened Exact Matching (CEM) and Heckman regression. In general, the amount of compensation paid to the CEO shows the company's financial capacity, which reflects the company's liquidity and asset capabilities, which will be read as risk. Furthermore, the distinctiveness of the governance systems in these two countries, as observed in our sample, demonstrates a consistent outcome.

Contribution/Originality: In general, the amount of compensation paid to the CEO shows the company's financial capacity, which reflects the company's liquidity and asset capabilities, which will be read as risk. This study contributes to the literature and gives guidance on how companies deal with hidden potential risks through the compensation mechanism.

1. INTRODUCTION

The current public attention has been focused on the manipulation of financial reports by directors with the intention of personal financial advantage (Pardamean Sinaga, Adji Samekto, & Emirzon, 2019). Director's compensation plays a big role in this matter (Sharma, Ananthanarayanan, & Litt, 2021). According to various accounting scandals in developing nations, compensation has become a significant factor in financial manipulation in

addition to serving as a means of rewarding directors for their performance. This issue has attracted considerable attention from the public in recent times.

The arrangement of the amount and type of compensation in each company is certainly different. It depends on the corporate governance provisions and external factors, such as a country's economic factors. Several countries, such as Indonesia and Malaysia, are examples from Asia that have unique institutional contexts, country characteristics, and governance. Some studies that discussed director compensation in these two countries provided mixed results. For example, Soepriyanto, Kuncoro, Zudana, and Averine (2022) found that director compensation encourages public companies in Indonesia to deviate from accounting practices. Meanwhile, Girau, Bujang, Paulus Jidwin, and Said (2022) argued that compensation is an effective corporate governance mechanism in Malaysia to mitigate corporate fraud.

An effective monitoring mechanism is an important part of corporate governance (Bebchuk & Fried, 2006; Bebchuk, Grinstein, & Peyer, 2010). Several studies have been focused on maximizing the compensation that executives can receive to encourage better performance (Arayakarnkul, Chatjuthamard, Lhaopadchan, & Treepongkaruna, 2022), monitoring effectiveness (Reddy, Abidin, & You, 2015; Vafeas & Waegelein, 2007), and reduction of agency costs (Qu, Yao, & Percy, 2020). Other research looked at the idea that the right way to set up equity-based pay can change agency costs, lower long-term issues like risky investments and company policies (Brockman, Martin, & Unlu, 2010; Reddy et al., 2015), and trigger reductions in audit fees (Vafeas & Waegelein, 2007). Using the same logic, Armstrong, Larcker, Ormazabal, and Taylor (2013) and Baber, Kang, Liang, and Zhu (2015) emphasizes that high CEO compensation provides hope for minimal financial reporting errors in the company.

On the other hand, previous research found there was potential for CEO compensation due to the emergence of corporate earnings manipulation (Bergstresser & Philippon, 2006; Cheng & Warfield, 2005). In addition, high compensation causes directors to try to hide poor performance and use more accrual items by paying higher audits (Zhang, Bartol, Smith, Pfarrer, & Khanin, 2008). Moreover, Chen, Gul, Veeraraghavan, and Zolotoy (2015) also believe that the pressure generated increases the risk of errors in reporting and other unethical actions. This outcome suggests that the company faces potential risks as a result of the high compensation it provides to directors.

The audit is one of the monitoring mechanisms implemented to provide adequate assurance to stakeholders regarding the fairness of the client's financial statements (DeFond & Zhang, 2014). The Public Company Accounting Oversight Board (PCAOB) states that director compensation is one of the most important areas to observe because it carries a high level of risk (PCAOB, 2015). Therefore, external auditors should apply complex audit procedures to obtain adequate understanding and audit evidence in this area. The more complex the audit procedures the auditor must go through, the more effort the auditor must expend to complete the audit work. If the auditor perceives the company's risk to be large, the audit fee will automatically be high.

Based on those matters, this study aims to examine how the director's compensation relates to the amount of audit fees that the company must issue as a form of agency costs. This study uses 3,417 samples of data from non-financial companies published on the Indonesian and Malaysian stock exchanges for the observation years 2015 to 2019. Indonesia is one of the developing countries in Asia that implements a two-tier board system. Meanwhile, Malaysia applies a one-tier board system. The difference between these two systems is the proportion of the board in them. The author wants to address the uniqueness of these different settings in this study because these two systems carry different corporate governance mechanisms.

The present investigation has discovered a favorable correlation between director salary and audit fees. Interestingly, despite the distinct governance structures in place in Indonesia and Malaysia, the research regression analysis consistently reveals that there is a substantial positive relationship between director salaries and audit fees for public businesses in both countries. In addition to completing the primary analysis on the relationship between director salary and audit fees, this study also includes supplementary analyses that examine the influence of country-

level variables. Specifically, the study investigates the role of state household spending as a moderating variable in the two nations under observation.

Additional test results indicate that the country's household consumption level moderates the positive relationship between director compensation and audit fees. In addition, the results of other additional tests show that CEOs and CFOs with experience working as auditors make more cautious decisions. Thus, higher director's compensation is not related to audit fees if the CEO and CFO have served as auditors before. Furthermore, additional testing also shows that the greatest potential risk will arise when overcompensation is given to directors. This study's results are strong and don't have any endogeneity problems because they match up with the main study's results when using Coarsened Exact Matching (CEM) and Heckman regression for sensitivity testing.

In the end, this research contributes in several ways. First, this study contributes to developing literature on governance policies on directors' compensation and their relationship to audit fees, especially in developing countries. Finally, this research provides a practical contribution for policymakers in companies to consider better governance mechanisms in their companies so that the potential risks that cause high agency costs can be reduced. In addition, this study provides other practical implications, such as that it is important for companies to recruit executives who have adequate backgrounds and characteristics to achieve company goals.

The present study is examined and analyzed in multiple areas. The introduction section provides an overview of the study's history and motivation. Additionally, the subsequent section will examine the progression of the idea put forward in this research. This section will provide a comprehensive discussion of the research technique, which constitutes the third element of the study. Section 4 will encompass the presentation of the primary findings and supplementary findings pertaining to the analysis conducted in this study. Section 5 of this study encompasses the presentation of the research findings and the subsequent conclusions derived from the comprehensive analysis.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Differences in interests between managers and stakeholders may be the root cause of agency problems, which will have an impact on rising agency costs. As compensation given to directors is a mechanism to provide incentives for the performance that has been given, this is also a strategy to overcome agency problems (Al-Shammari, 2021). As the previous study by Girau et al. (2022) proved, the composition of the effectiveness of governance through the provision of compensation to directors is able to become a mechanism for fraud prevention. Hence, the provision of high director compensation can guarantee a minimal risk of the company failing to achieve its objectives. The company provides compensation to executives as a form of appreciation to motivate directors to improve their performance. Compensation is also a form of the company's efforts to maintain its managerial capabilities (Lin & Cheng, 2013; Peng, Sun, & Markóczy, 2015).

According to earlier studies Al-Shammari (2021); Aldogan Eklund (2022); Brockman, Ma, and Ye (2015) and Chu, Liu, Ma, and Li (2020), the company's high director compensation may pose risks to the business. Although compensation given to directors is a mechanism that can reduce agency problems, previous research has shown that excessive compensation will exacerbate agency problems (Dah & Frye, 2017). This outcome shows that the company's executives' high compensation cannot guarantee the directors' performance for the company, and that their attention to safeguarding the interests of shareholders will be even greater. The audit fee is the amount of costs incurred by the company to ensure that its internal control is good and that the financial statements presented are reasonable in the light of material misstatements (AlQadasi & Abidin, 2018; Chen, Hua, Liu, & Zhang, 2019; Hay, Knechel, & Ling, 2008; Hay, Knechel, & Wong, 2006; Kukrer & Saglam, 2023). As a result, the audit fee will be higher the greater the risk in the company (Hay et al., 2006).

Armstrong et al. (2013) believe that compensation creates pressure that can result in the risk of misreporting unethical actions. Even if the implications are not reached directly, the argument that high compensation can increase audit costs develops because of stakeholder expectations about monitoring effectiveness. High compensation causes

directors to try to hide poor performance and use more accrual items by paying higher audit fees (Zhang et al., 2008). These findings mean that a high compensation policy can lead to higher and more detrimental monitoring costs. This kind of explanation is based on the pressure to provide good performance, which is the reason why manipulation actions can be carried out (Chen et al., 2015). In addition to triggering manipulation, low-quality financial statements, potential restatements, and blurring of accounting errors can also occur in companies with high directors' compensation.

Recent research examining a sample of 810 in 2004 - 2012 public companies in New Zealand has also found that director compensation is positively related to audit fees (Sharma et al., 2021). This result indicates that executive compensation carries a large risk for the company, so it impacts increasing agency costs that must be incurred through the external audit process. The International Federation of Accountants (IFAC) states that director compensation is a high-risk area (IFAC, 2010). Furthermore, PCAOB also considers that the director's compensation area is a complex area that should be an important part of audit procedures in order to obtain an adequate understanding.

Based on the findings of earlier studies, we hypothesize that the company's director compensation is a complex area with a significant potential for risk, so auditors must put in a lot of effort to fully understand this area. When the audit effort is large, the time and energy to complete sufficient audit procedures will also be large, so it will increase the audit fee that must be paid.

H1: Directors' compensation is positively related to an audit fee.

3. METHODOLOGY

3.1. Sample Selection

This study used a multi-country test sample in the 2015-2019 period of Indonesian and Malaysian companies listed on the Stock Exchange. Table 1 shows the distribution of data samples and data frequency from our 8,765 total observations, with Indonesia having 3,910 observations and Malaysia having 4,855 observations for each. We used 3417 total samples, with Indonesia and Malaysia, respectively, 2566 and 851 samples. We involved all sectors of the company and eliminated incomplete data samples. However, we missed several data points on the sample of Indonesian companies due to the voluntary nature of audit fee disclosures. In addition, we excluded data with Standards Industrial Classification Code (SIC) 6 because of the different nature and regulations of the financial sector.

Table 1. Distribution of data sample and data frequency.

Panel A. Samples selection of data frequency	
Description:	**Sample size**
The total observed population of the research (2015-2019)	8.765
(-) Financial firms with SIC 6	1.710
(-) Audit Fee related missing data	3.638
The total number of final samples available for ARL processing	3.417

Table 1. Continue…

Panel B. Sample distribution by industry			
SIC (Industry)	**Total**	**%**	**Cumulative**
0 (Agriculture, forestry, and fishing)	35	1.02	1.02
1 (Mining)	396	11.59	12.61
2 (Construction)	397	11.62	24.23
3 (Manufacturing)	391	11.44	25.67
4 (Transportation, communication, and utilities)	410	12.00	47.67
5 (Wholesale and retail trade)	471	13.78	61.46
7 (Service industries)	674	19.78	81.18
8 (Health, legal & educational services, and consulting)	43	1.26	82.44
9 (Public administration, no classifiable)	600	17.56	100%
Total	3,417	100%	100%

3.2. Research Empirical Model

This study used ordinary linear regression (OLS) to test the main hypothesis, namely the relationship between director compensation and audit fees issued by the company. In addition, we also applied the Coarsened Exact Matching (CEM) and Heckman two-stage least squares methods to examine the sensitivity analysis of this study.

The study's dependent variable is audit fees, which are found by taking the natural logarithm of the total amount of audit fees. The study's independent variable is board of directors' pay, which is found by taking the natural logarithm of the total amount of pay, without distinguishing between long-term and short-term incentives, as done in research (Reddy et al., 2015; Sharma et al., 2021). Meanwhile, several control variables were used in this study to avoid the issue of observable bias in the results that were concluded later. To clarify this matter, the following research model proposed in this research hypothesis is presented in Equation 1.

$$AFEE = \beta_1 + \beta_2 COMPDIR_{i.t} + \beta_3 BOARDSIZE_{i.t} + \beta_4 CEO\_exAUDITOR_{i.t} + \beta_5 CFO\_exAUDITOR_{i.t} + \beta_6 MEETING\_HELD_{i.t} + \beta_7 BIG4_{i.t} + \beta_8 ARL_{i.t} + \beta_9 OPINION_{i.t} + \beta_{10} FIRMSIZE_{i.t} + \beta_{11} LEVERAGE_{i.t} + \beta_{12} ROA_{i.t} + \beta_{13} LOSS_{i.t} + \varepsilon_{i.t} \quad [1]$$

The control variables used in this study include governance and financial variables. Furthermore, to get a complete description, an explanation of the definition of each variable is presented in Appendix 1.

4. RESULTS

4.1. Descriptive Statistics

Table 2 presents the descriptive statistics for this study. In Malaysia and Indonesia, the mean of the logarithm audit fee is 19,443, with a minimum value of 12,012 and a maximum value of 22,584. On the other hand, the mean logarithmic value of the compensation the company pays to directors in Malaysia and Indonesia is 21,990, with a minimum value of 12,195 and a maximum value of 25,492. Furthermore, the average board size serving multiple companies in Indonesia and Malaysia is seven people, with a minimum of 4 people and a maximum of 15 people. On average, companies in Indonesia and Malaysia have CEOs and CFOs who have previously worked as auditors, with a mean score of 0.080 and 0.306, respectively. In addition, the average number of meetings held by the board of directors in each period is 7-8 times, with the maximum number held being 47 times. BIG4 has audited a mean of 40.5% of businesses in Indonesia and Malaysia, with a standard deviation of 49.1%, and the average audit report delay is 95 days, with a minimum of 81 days until the partner signs the audit report. It indicates that Malaysian and Indonesian companies are still the primary market shares of BIG 4 Public Accounting Firms in the observation period of this study. In this observation period, companies in Indonesia and Malaysia had an average opinion of 1,877 with a median of 2, meaning that several companies in the sample of this study received unqualified and qualified opinions. The natural logarithm of the company's assets, which has an average value of 20,599 and a median value of 19,234, is one of several variables used to represent the company's financial characteristics in this study. The leverage variable, which represents the next financial characteristic, has an average value of 0.314 and a median value of 0.174. The company's mean ROA in this observation is 7,129, with a minimum and maximum value of -33,180 and 212,881, respectively. Furthermore, as many as 31.3% of companies in this study's observation are companies with loss experience. Only about 70% of the companies in this observation have a positive income value.

Table 3 presents the result of the Pearson correlation test, which univariates the correlation between variables one and the others. Univariately, the director's compensation strongly correlates with audit fees, showing a significant positive direction. The pay for directors will directly affect the audit fee the company has to pay. This is because the audit fee is based on the level of audit risk (Simunic, 1980), the amount of work that goes into the audit (Mande & Son, 2015), and the number of audit guarantees that are needed to protect the company's reputation in case of fraud (Goodwin-Stewart & Kent, 2006). Furthermore, the size of the board, the number of meetings held by the board of directors, and the size of the Public Accounting Firm that audits the company univariately will significantly increase

the audit fee. Meanwhile, audit report lag and company size univariately will have a significant negative relationship with the audit fee that the company must pay in the observation period of this study.

Table 2. Descriptive statistics.

Variables	Mean	SD	Min.	25%	Med.	75%	Max.
AFEE	19.443	1.128	12.012	18.674	19.269	20.088	22.584
COMPDIR	21.990	1.464	12.195	20.940	22.026	22.980	25.492
BOARDSIZE	7.761	2.401	4.000	6.000	7.000	9.000	15.000
CEO_exAUDITOR	0.080	0.271	0.000	0.000	0.000	0.000	1.000
CFO_exAUDITOR	0.306	0.461	0.000	0.000	0.000	1.000	1.000
MEETING_HELD	7.933	7.267	0.000	5.000	5.000	8.000	47.000
BIG4	0.405	0.491	0.000	0.000	0.000	1.000	1.000
ARL	95.298	25.727	24.000	81.000	95.000	110.000	178.000
OPINION	1.877	0.329	1.000	2.000	2.000	2.000	2.000
FIRMSIZE	20.599	4.363	11.841	18.079	19.234	21.585	31.184
LEVERAGE	0.314	0.509	0.000	0.026	0.174	0.438	3.894
ROA	7.129	29.765	-33.180	-0.049	0.173	3.578	212.881
LOSS	0.313	0.464	0.000	0.000	0.000	1.000	1.000

Notes: AFEE (Audit fee); COMPDIR (Compensation of director); BOARDSIZE (Size of board); ARL (Audit report lag); ROA (Return on assets); LOSS (Company's loss experience).

Table 3. Pearson correlation.

Variables		[1]	[2]	[3]	[4]	[5]	[6]	[7]
[1]	AFEE	1.000						
[2]	COMPDIR	0.235*** (0.000)	1.000					
[3]	BOARDSIZE	0.123*** (0.000)	0.020 (0.253)	1.000				
[4]	CEO_exAUDITOR	0.020 (0.252)	-0.012 (0.472)	0.006 (0.715)	1.000			
[5]	CFO_exAUDITOR	0.018 (0.290)	0.023 (0.178)	0.040** (0.019)	0.103*** (0.000)	1.000		
[6]	MEETING_HELD	0.030* (0.083)	-0.158*** (0.000)	0.309*** (0.000)	0.020 (0.250)	-0.033* (0.051)	1.000	
[7]	BIG4	0.171*** (0.000)	0.066*** (0.000)	0.246*** (0.000)	0.006 (0.723)	0.057*** (0.001)	0.084*** (0.000)	1.000
[8]	ARL	-0.118*** (0.000)	0.064*** (0.000)	-0.260*** (0.000)	-0.017 (0.309)	-0.001 (0.940)	-0.249*** (0.000)	-0.176*** (0.000)
[9]	OPINION	-0.021 (0.215)	-0.104*** (0.000)	0.063*** (0.000)	0.064*** (0.000)	0.102*** (0.000)	0.120*** (0.000)	-0.055*** (0.001)
[10]	FIRMSIZE	-0.080*** (0.000)	-0.332*** (0.000)	0.344*** (0.000)	-0.010 (0.573)	-0.049*** (0.004)	0.499*** (0.000)	0.074*** (0.000)
[11]	LEVERAGE	-0.021 (0.228)	-0.080*** (0.000)	0.047*** (0.005)	0.052*** (0.002)	-0.002 (0.914)	0.154*** (0.000)	0.015 (0.394)
[12]	ROA	-0.018 (0.289)	0.019 (0.274)	0.064*** (0.000)	-0.014 (0.406)	0.022 (0.205)	-0.032* (0.060)	0.101*** (0.000)
[13]	LOSS	0.000 (0.989)	-0.010 (0.563)	-0.213*** (0.000)	0.020 (0.234)	-0.019 (0.255)	-0.045*** (0.008)	-0.181*** (0.000)
Variables		[7]	[8]	[9]	[10]	[11]	[12]	[13]
[7]	BIG4	1.000						
[8]	ARL	-0.176*** (0.000)	1.000					
[9]	OPINION	-0.055*** (0.001)	-0.035** (0.043)	1.000				
[10]	FIRMSIZE	0.074*** (0.000)	-0.270*** (0.000)	0.124*** (0.000)	1.000			
[11]	LEVERAGE	0.015 (0.394)	-0.056*** (0.001)	0.007 (0.663)	0.093*** (0.000)	1.000		
[12]	ROA	0.101*** (0.000)	-0.099*** (0.000)	-0.042** (0.014)	-0.002 (0.909)	-0.125*** (0.000)	1.000	
[13]	LOSS	-0.181*** (0.000)	0.246*** (0.000)	0.008 (0.657)	-0.118*** (0.000)	0.049*** (0.004)	-0.241*** (0.000)	1.000

Note: p-values in parentheses.
* p < 0.1, ** p < 0.05, *** p < 0.01.

4.2. Main Result

Table 4 presents the main results of this study. The first column presents the regression results based on this study's overall sample observations. The results show that from 3,417 data observations of public companies in Malaysia and Indonesia, director compensation has a significant positive relationship with audit fees, with a coefficient value (t-value) of 0.094 (4622) at a significance level of 1%. That is, every increase in compensation to directors will positively increase the audit fee that must be paid significantly. Separating the samples of the two countries observed in this study also helped to achieve the regression results. The second column shows that in Malaysia alone, with 2,566 observations, the relationship between director compensation and audit fees is significantly positive, with a coefficient (t-value) of 0.157 (3,741) at a significance level of 1%.

In the meantime, column 3 displays the relationship between director pay and audit fees in Indonesia, based on 851 observations. This relationship is statistically significant, with a t-value of 0.077 (3,949) and a significance level of 5%. Based on these results, Malaysia shows a slightly lower positive relationship than Indonesia. However, overall, the results of this study prove that the hypothesis proposed in this study is proven. So that it can be interpreted that the director's compensation provided by the company carries a significant risk that can increase the auditor's effort to complete adequate audit procedures, it has an impact on increasing the audit fee that the company must pay as a form of agency fee.

Table 4. Main regression.

Variables	All sample	Malaysia	Indonesia
	AFEE	AFEE	AFEE
COMPDIR	0.094***	0.157***	0.077***
	(4.622)	(3.741)	(3.949)
BOARDSIZE	0.155***	0.017	0.120
	(4.477)	(0.749)	(1.618)
CEO_exAUDITOR	0.355	0.187**	1.327*
	(1.559)	(2.449)	(1.797)
CFO_exAUDITOR	-0.032	-0.074	-0.453
	(-0.224)	(-0.829)	(-1.011)
MEETING_HELD	0.049***	0.071***	0.030**
	(3.932)	(3.021)	(1.964)
BIG4	0.968***	0.737***	1.228***
	(7.087)	(7.896)	(2.821)
ARL	-0.007**	-0.004***	-0.018
	(-2.122)	(-2.904)	(-1.612)
OPINION	0.893***	-0.054	1.510
	(4.206)	(-0.565)	(0.687)
FIRMSIZE	0.034	0.062***	0.024
	(1.266)	(3.923)	(0.537)
LEVERAGE	-0.082	0.122	-1.128
	(-0.621)	(1.398)	(-1.571)
ROA	-0.005***	-0.005***	-0.007
	(-2.982)	(-3.076)	(-0.351)
LOSS	0.427***	0.299***	0.368
	(2.901)	(3.517)	(0.649)
_cons	13.435***	13.847***	15.740***
	(8.824)	(15.686)	(3.245)
Year fixed effect	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes
Country fixed effect	Yes	No	No
R-square	0.163	0.105	0.377
Adjusted r-square	0.157	0.097	0.359
Total	3417	2566	851

Note: *t* statistics in parentheses.
$^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$.

4.3. Sensitivity Analysis

4.3.1. Coarsened Exact Matching (CEM)

Coarsened Exact Matching (CEM) was chosen as a tool to test the issue of self-selection bias. Furthermore, we argue that this test is important because, like the characteristics of other companies, it can also affect the significance of research results, so it can also affect the relationship between director compensation and increasing audit fees. The results of the CEM test are presented in Table 5. Divided into five strata, the control variables used in this study served as the basis for the CEM test. From a total of 3,417 total observed data samples, 630 observations in this study were matched. The results of the CEM test show that the relationship between director compensation and audit fees is consistent with the main results of this study, with a coefficient (t-value) of 0.181 (2,534). These results confirm our argument that compensation given to directors carries risks and increases the audit fees that companies have to pay.

Table 5. Coarsened exact matching.

Panel A. Matching summary		
	AFEE = 0	**AFEE = 1**
All	1709	1708
Matched	359	271
Unmatched	1350	1437

Panel B. CEM for director's compensation on audit fee	
	AFEE
COMPDIR	0.181**
	(2.534)
BOARDSIZE	-0.009
	(-0.111)
CEO_exAUDITOR	-0.098
	(-0.548)
CFO_exAUDITOR	0.286**
	(2.049)
MEETING_HELD	0.061
	(0.611)
BIG4	0.635***
	(2.742)
ARL	-0.002
	(-0.338)
OPINION	0.074
	(0.256)
FIRMSIZE	0.159**
	(2.120)
LEVERAGE	1.277
	(1.609)
ROA	-0.002
	(-1.455)
LOSS	0.360**
	(2.104)
_cons	11.234***
	(3.730)
Year fixed effect	Yes
Industry fixed effect	Yes
Country fixed effect	Yes
R-square	0.142
Adjusted r-square	0.106
Total	630

Note: t statistics in parentheses.
* p < 0.1, ** p < 0.05, *** p < 0.01.

4.4. Heckman Two-Stage Least Square Regression

Heckman's two-stage least squares regression was used to get around this endogeneity problem (Heckman, 1979). This is because there could be unobserved variables that change the relationship between the director's pay and the audit fee that needs to be paid. Unobserved variables are potential biases that arise because there may be other variables that are not included in the study model, but they can influence the dependent variable. Therefore, we propose this test in two stages. Stage 1 is a test of instrument variables with independent variables. The instrument variable proposed in this study is the amount of director's compensation based on the average industry observation. The results show that the instrument variable has a significant positive relationship with the dependent variable, with a coefficient value (t-value) of 0.080 (2.73). It implies that the industry average has an impact on the director's compensation package. Table 6 presents an addition: we found that the director's compensation (COMPDIR) was positively significant (coeff = 0.095, t-value = 4.630), with the audit fee (AFEE) at a significance level of 1% in the second stage. On the other hand, MILLS, which is the non-selection hazard ratio, in the second stage showed insignificant results at a coefficient value (t-value) of 0.609 (0.517). Therefore, it can be concluded that the research model proposed in this study is free from the issue of endogeneity, especially the issue of unobserved variables.

Table 6. Two-stage Heckman regression.

Variables	First stage	Second stage
	COMPDIR	AFEE
MEAN_COMPDIR	0.080*** (2.73)	-
COMPDIR	-	0.095*** (4.630)
BOARDSIZE	0.137*** (12.31)	0.204** (2.136)
CEO_exAUDITOR	-0.108 (-1.28)	0.313 (1.236)
CFO_exAUDITOR	0.085* (1.68)	0.004 (0.024)
MEETING_HELD	0.015*** (3.34)	0.053*** (4.052)
BIG4	0.137*** (2.78)	1.018*** (6.012)
ARL	-0.007*** (-6.55)	-0.009* (-1.743)
OPINION	-0.174* (-1.71)	0.830*** (3.348)
FIRMSIZE	0.045*** (5.05)	0.050 (1.332)
LEVERAGE	0.110** (2.40)	-0.044 (-0.275)
ROA	-0.003*** (-3.69)	-0.006** (-2.217)
LOSS	-0.175*** (-3.33)	0.358* (1.745)
MILLS	-	0.609 (0.517)
_cons	-3.033*** (-5.37)	12.217*** (3.899)
Year fixed effect	Yes	Yes
Industry fixed effect	Yes	Yes
Country fixed effect	Yes	Yes
R-square		0.163
Adjusted r-square	0.129	0.157
Total	3417	3417

Note: *t* statistics in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

4.5. Additional Analysis

To deepen the analytical examination of this study's main results, we propose several additional tests that can enhance the main regressions of this study. Some of these tests were performed by adding moderating variables, dividing the sample based on the governance variable, and splitting the sample based on the quartile of the director's compensation amount paid by the company.

4.6. Moderation Using the Level of Consumption Percentage

The level of household consumption is part of a country's contribution to the Gross Domestic Product (GDP). The level of private consumption is the expenditure on goods and services by households for consumption purposes. In this case, households are the ultimate demand for various goods and services in a country's economy. Several previous studies from several different countries have found that household welfare was the trigger for the high level of household consumption itself (Bhatia & Mitchell, 2016; Campbell & Cocco, 2007; Case, Quigley, & Shiller, 2005; Clatworthy & Jones, 2001; Dechow & Dichev, 2002; Ding, Liu, & Wu, 2016; Disney, Gathergood, & Henley, 2010; Dvornak & Kohler, 2007; Gan, 2010; Harymawan & Nowland, 2016; He, Ye, & Shi, 2020; Hwang & Kim, 2017; Irvine, 2008; Li & Zhang, 2021; Li, Liu, Lu, Wang, & Zhou, 2022).

Table 7. Level country analysis with consumption as moderating variable.

Variables	(1)
	AFEE
COMPxCONSUM	0.228***
	(8.111)
COMPDIR	-0.087***
	(-5.376)
d_CONSUMPTION	-3.569***
	(-6.913)
BOARDSIZE	0.151***
	(4.383)
CEO_exAUDITOR	0.280
	(1.257)
CFO_exAUDITOR	-0.026
	(-0.187)
MEETING_HELD	0.045***
	(3.520)
BIG4	1.008***
	(7.426)
ARL	-0.008**
	(-2.454)
OPINION	0.511**
	(2.545)
FIRMSIZE	0.020
	(0.735)
LEVERAGE	-0.090
	(-0.701)
ROA	-0.006***
	(-3.287)
LOSS	0.379***
	(2.615)
_cons	18.273***
	(12.054)
Year fixed effect	Yes
Industry fixed effect	Yes
Country fixed effect	Yes
R-square	0.186
Adjusted r-square	0.180
Total	3417

Note: AFEE (Audit fee); COMPxCONSUM (Compensation X household consumption); COMPDIR (Compensation of director); d_CONSUMPTION (Household consumption index); BOARDSIZE (Size of board); ARL (Audit report lag); ROA (Return on assets); LOSS (Company's loss experience).
t statistics in parentheses.
* p < 0.1, ** p < 0.05, *** p < 0.01.

Based on these findings, this study proposes that the percentage value of a country's household consumption level (CONSUMPTION) is moderating the relationship between director compensation (COMPDIR) and company audit fees (AFEE). Data on consumption levels for Malaysia and Indonesia were obtained from World Bank data (theglobaleconomy.com). Household consumption as a percentage of GDP serves to gauge the nation's consumption level. Table 7 presents an additional analysis of additional moderating variables in the relationship between company compensation and audit fees. The results suggest that in countries with a high level of consumption, the positive relationship between director compensation and audit fees will strengthen with a coefficient (t-value) of 0.228 (8.111) at a significance level of 1%. It suggests that the high level of household consumption in a nation, which can raise risk within the company, also influences the company's compensation for the directors. It is because directors under much pressure tend to be motivated to maintain their positions in various ways. Some of these things encourage auditors' skepticism to question its fairness. As a result, more effort must be put in, ultimately increasing the audit fee.

4.7. Split Sample based on CEO and CFO Ex-Auditor

The next test performed a split-sample regression on director compensation with audit fees based on the CEO and CFO who have served as auditors before. It is done with the purpose of finding more specific and accurate results. For example, previous research found that experienced executives who were former auditors tend to be more conservative and risk-averse in determining company strategy (Hoitash, Hoitash, & Kurt, 2016; Ngelo, Harymawan, & Nasih, 2022; Ngelo, Permatasari, Rasid, Harymawan, & Ekasari, 2022).

Table 8. CEO and CFO Ex-auditor split sample analysis.

Variables	CEO_ExAuditor = 1	CEO_ExAuditor = 0	CFO_ExAuditor = 1	CFO_ExAuditor = 0
	AFEE	AFEE	AFEE	AFEE
COMPDIR	0.063 (1.015)	0.053*** (2.949)	0.043 (1.298)	0.054*** (2.646)
BOARDSIZE	0.295** (2.377)	0.124*** (3.890)	0.204*** (3.497)	0.109*** (3.093)
CFO_exAUDITOR	0.306 (0.769)	-0.174 (-1.338)	-	-
CEO_exAUDITOR	-	-	0.835*** (3.242)	0.319 (1.027)
MEETING_HELD	-0.045 (-0.501)	0.045*** (5.135)	0.041** (1.974)	0.043*** (3.519)
BIG4	0.646 (1.357)	1.153*** (9.091)	1.213*** (5.531)	1.085*** (7.261)
ARL	0.026*** (3.362)	0.039*** (14.088)	0.041*** (7.907)	0.037*** (12.291)
OPINION	1.376 (1.417)	0.346** (2.101)	0.403 (1.290)	0.447** (2.311)
FIRMSIZE	0.012 (0.175)	0.078*** (3.159)	-0.005 (-0.130)	0.114*** (3.457)
LEVERAGE	0.174 (0.646)	-0.004 (-0.036)	0.186 (1.227)	-0.050 (-0.350)
ROA	0.002 (0.391)	-0.004** (-2.321)	-0.006 (-1.441)	-0.002 (-1.566)
LOSS	-0.346 (-0.883)	0.002 (0.017)	0.127 (0.626)	-0.099 (-0.613)
_cons	11.055*** (2.645)	11.487*** (8.598)	10.262*** (3.181)	11.014*** (7.572)
Year fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Country fixed effect	Yes	Yes	Yes	Yes
R-square	0.320	0.342	0.348	0.337
Adjusted r-square	0.254	0.337	0.333	0.330
Total	272	3145	1044	2373

Note: t statistics in parentheses.
* p < 0.1, ** p < 0.05, *** p < 0.01.

Therefore, companies led by directors who were formerly auditors will be more careful to make deliberate decisions to form better corporate habits and work cultures. Furthermore, the analysis in Table 8 shows that the relationship between the director's compensation and audit fees will increase significantly when the CEO and CFO have no audit experience. Companies run by CEOs and CFOs who have previously served as auditors do not demonstrate a significant relationship between director compensation and audit fees. Therefore, this finding indicates that the high potential risk of companies offering high compensation to directors will be minimized when the directors have previous experience as auditors.

4.8. Split Sample based on Directors' Compensation

A final additional analysis examines the relationship between the director's compensation and audit fees by decomposing the sample size of the director's compensation based on its quartiles. The analysis result indicates that the relationship between directors' compensation, which tends to be low, will not significantly increase the audit fee. However, when director compensation is very high, the relationship between director compensation and audit fees will increase significantly. These results are presented in Table 9, columns 1 to 3. We found that when the compensation given to directors is low to medium, the relationship is insignificant with audit fees.

Table 9. Regression using split sample based on directors' compensation.

Variables	Low compensation	Middle to low compensation	Middle to high compensation	High compensation
	AFEE	AFEE	AFEE	AFEE
COMPDIR	0.017	0.131	0.050	0.352*
	(0.360)	(0.512)	(0.214)	(1.803)
BOARDSIZE	0.066	0.084	0.022	0.147***
	(0.909)	(1.349)	(0.438)	(2.676)
CEO_exAUDITOR	0.797	0.321*	0.853***	0.412
	(1.330)	(1.701)	(3.508)	(0.748)
CFO_exAUDITOR	-0.131	-0.243	-0.160	0.154
	(-0.408)	(-1.049)	(-0.805)	(0.668)
MEETING_HELD	0.053**	-0.034	0.030*	0.035**
	(2.176)	(-0.730)	(1.876)	(2.417)
BIG4	0.615*	0.907***	1.015***	1.205***
	(1.665)	(4.316)	(5.603)	(4.687)
ARL	0.045***	0.042***	0.027***	0.031***
	(10.564)	(6.840)	(4.004)	(5.753)
OPINION	0.626	0.202	0.305	0.372*
	(1.133)	(0.695)	(1.466)	(1.812)
FIRMSIZE	-0.001	0.019	0.019	0.083**
	(-0.011)	(0.461)	(0.589)	(2.375)
LEVERAGE	-0.132	0.111	-0.091	-0.036
	(-0.618)	(1.055)	(-0.488)	(-0.078)
ROA	0.001	-0.009*	0.002	-0.003
	(0.664)	(-1.871)	(0.931)	(-1.406)
LOSS	0.133	0.101	-0.048	-0.159
	(0.394)	(0.455)	(-0.257)	(-0.553)
_cons	13.968***	12.232**	16.101***	3.126
	(5.457)	(2.184)	(2.976)	(0.604)
Year fixed effect	Yes	Yes	Yes	Yes
Industry fixed effect	Yes	Yes	Yes	Yes
Country fixed effect	Yes	Yes	Yes	Yes
R-square	0.406	0.324	0.183	0.289
Adjusted r-square	0.388	0.304	0.158	0.267
Total	855	854	854	854

Note: t statistics in parentheses.
* p < 0.1, ** p < 0.05, *** p < 0.01.

Meanwhile, column 4 shows that when the director's compensation is very high, the director's compensation will significantly increase the audit fee, with a coefficient (t-value) of 0.352 (1,803) at a significance level of 10%. These results support our hypothesis that a significant positive relationship between director compensation and audit fees

will increase when the company provides a huge amount of compensation to directors. Furthermore, this confirms that very high compensation will potentially increase the company's risk, so audit fees that must be paid will be even more significant.

5. CONCLUSION

This study aims to examine the relationship between director compensation and audit fees. This study uses data on public companies listed on the Malaysian and Indonesian stock exchanges in 2015-2019. Along with the 3,417 samples of Malaysian and Indonesian data used, this study finds that director compensation is associated with significantly increasing audit fees. These results strengthen the argument for our hypothesis that higher board compensation creates expectations and pressures that lead to increased monitoring costs. Our research corroborates the notion that directors can avoid performance appraisal failures by increasing audit fees. However, other factors, such as an increase in the risk the auditor is capturing and subsequently expanding the audit fee, may also be to blame for the increase in audit fees. The potential CEM testing and Heckman's two-stage least squares regression are good ways to deal with endogeneity problems caused by self-selection bias and variables that aren't being observed. Based on the findings of both investigations, a consistent outcome was observed. Therefore, it may be inferred that the findings of this research are reliable and unaffected by endogeneity concerns. Moreover, the supplementary study undertaken revealed that the degree of consumption within a country enhances the favorable correlation between director salary and audit fees. Research conducted on companies with seasoned CEOs and CFOs serving as auditors has revealed that there is no significant correlation between director compensation and audit fees. Furthermore, it has been observed that director salaries at lower to moderate levels do not exhibit any association with audit fees. On the contrary, the correlation between remuneration and audit fees exhibits greater strength in instances where director salary is notably elevated. This study provides several contributions. First, as the findings of this study indicate, high compensation brings with it potential risks for companies, one of which is the driving force behind the high level of risk, one of which is the high level of state household consumption. The findings of this study suggest that the high compensation given to directors should be coupled with a good corporate governance mechanism so that these potential risks can be reduced. Second, this study also informs the experience of a director, which can reduce the potential risk in a company because they have the nature to be more careful in making every decision. Thus, this research can be the basis for considering the right experienced personnel to occupy the director position in the company. Third, this study contributes to the development of literature on governance policies on directors' compensation and its relationship to audit fees, especially in developing country settings.

In conclusion, it is important to acknowledge the constraint on the sample size in Indonesia due to the voluntary nature of disclosing audit fees. Additionally, it is important to acknowledge that the measurement employed in our study was constrained to the realm of compensation and focused on a distinct facet of compensation. Therefore, future research on otters can incorporate alternative measurements, take into account additional variables that may contribute to a more comprehensive analysis, and address the limitations identified in our work.

Funding: This research is supported by Riset Kolaborasi Mitra Luar Negeri Universitas Airlangga (Grant number: 452/UN3.14/PT/2020).
Institutional Review Board Statement: Not applicable.
Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Data Availability Statement: The corresponding author can provide the supporting data of this study upon a reasonable request.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

REFERENCES

Al-Shammari, H. A. (2021). CEO compensation and firm performance: The mediating effects of CEO risk taking behaviour. *Cogent Business & Management*, *8*(1), 1894893. https://doi.org/10.1108/jfc-02-2021-0045

Aldogan Eklund, M. (2022). Does risk matter for executive compensation? *Corporate Governance: The International Journal of Business in Society*, *22*(1), 159-172. https://doi.org/10.1108/cg-12-2020-0536

AlQadasi, A., & Abidin, S. (2018). The effectiveness of internal corporate governance and audit quality: The role of ownership concentration – Malaysian evidence. *Corporate Governance (Bingley)*, *18*(2), 233–253. https://doi.org/10.1108/CG-02-2017-0043

Arayakarnkul, P., Chatjuthamard, P., Lhaopadchan, S., & Treepongkaruna, S. (2022). Corporate governance, board connections and remuneration. *Corporate Social Responsibility and Environmental Management*, *29*(4), 795-808. https://doi.org/10.1002/csr.2234

Armstrong, C. S., Larcker, D. F., Ormazabal, G., & Taylor, D. J. (2013). The relation between equity incentives and misreporting: The role of risk-taking incentives. *Journal of Financial Economics*, *109*(2), 327-350. https://doi.org/10.1016/j.jfineco.2013.02.019

Baber, W. R., Kang, S. H., Liang, L., & Zhu, Z. (2015). External corporate governance and misreporting. *Contemporary Accounting Research*, *32*(4), 1413-1442. https://doi.org/10.1111/1911-3846.12137

Bebchuk, L. A., & Fried, J. M. (2006). Pay without performance: Overview of the issues. *Academy of Management Perspectives*, *20*(1), 5-24.

Bebchuk, L. A., Grinstein, Y., & Peyer, U. (2010). Lucky CEOs and lucky directors. *The Journal of Finance*, *65*(6), 2363-2401. https://doi.org/10.1111/j.1540-6261.2010.01618.x

Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics*, *80*(3), 511-529. https://doi.org/10.1016/j.jfineco.2004.10.011

Bhatia, K., & Mitchell, C. (2016). Household-specific housing capital gains and consumption: Evidence from Canadian microdata. *Regional Science and Urban Economics*, *56*, 19-33. https://doi.org/10.1016/j.regsciurbeco.2015.10.004

Brockman, P., Ma, T., & Ye, J. (2015). CEO compensation risk and timely loss recognition. *Journal of Business Finance & Accounting*, *42*(1-2), 204-236. https://doi.org/10.1111/jbfa.12100

Brockman, P., Martin, X., & Unlu, E. (2010). Executive compensation and the maturity structure of corporate debt. *The Journal of Finance*, *65*(3), 1123-1161. https://doi.org/10.1111/j.1540-6261.2010.01563.x

Campbell, J. Y., & Cocco, J. F. (2007). How do house prices affect consumption? Evidence from micro data. *Journal of Monetary Economics 54*(3), 591–621. https://doi.org/10.1016/j.jmoneco.2005.10.016

Case, K. E., Quigley, J. M., & Shiller, R. J. (2005). Comparing wealth effects: The stock market versus the housing market. *Advances in Macroeconomics*, *5*(1), 1-34.

Chen, H., Hua, S., Liu, Z., & Zhang, M. (2019). Audit fees, perceived audit risk, and the financial crisis of 2008. *Asian Review of Accounting*, *27*(1), 97–111. https://doi.org/10.1108/ARA-01-2017-0007

Chen, Y., Gul, F. A., Veeraraghavan, M., & Zolotoy, L. (2015). Executive equity risk-taking incentives and audit pricing. *The Accounting Review*, *90*(6), 2205-2234. https://doi.org/10.2308/accr-51046

Cheng, Q., & Warfield, T. D. (2005). Equity incentives and earnings management. *The Accounting Review*, *80*(2), 441-476. https://doi.org/10.2308/accr.2005.80.2.441

Chu, Y., Liu, M., Ma, T., & Li, X. (2020). Executive compensation and corporate risk-taking: Evidence from private loan contracts. *Journal of Corporate Finance*, *64*, 101683. https://doi.org/10.1016/j.jcorpfin.2020.101683

Clatworthy, M., & Jones, M. J. (2001). The effect of thematic structure on the variability of annual report readability. *Accounting, Auditing & Accountability Journal*, *14*(3), 311-326. https://doi.org/10.1108/09513570110399890

Dah, M. A., & Frye, M. B. (2017). Is board compensation excessive? *Journal of Corporate Finance*, *45*, 566-585. https://doi.org/10.1016/j.jcorpfin.2017.06.001

Dechow, P. M., & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, *77*(s-1), 35-59. https://doi.org/10.2308/accr.2002.77.s-1.61

DeFond, M., & Zhang, J. (2014). A review of auditing archival research. *Journal of Accounting and Economics*, *58*(2–3), 275-326. https://doi.org/10.1016/j.jacceco.2014.09.002

Ding, S., Liu, M., & Wu, Z. (2016). Financial reporting quality and external debt financing constraints: The case of privately held firms. *Abacus*, *52*(3), 351-373. https://doi.org/10.1111/abac.12083

Disney, R., Gathergood, J., & Henley, A. (2010). House price shocks, negative equity, and household consumption in the United Kingdom. *Journal of the European Economic Association*, *8*(6), 1179-1207. https://doi.org/10.1111/j.1542-4774.2010.tb00552.x

Dvornak, N., & Kohler, M. (2007). Housing wealth, stock market wealth and consumption: A panel analysis for Australia. *Economic Record*, *83*(261), 117-130. https://doi.org/10.1111/j.1475-4932.2007.00388.x

Gan, J. (2010). Housing wealth and consumption growth: Evidence from a large panel of households. *The Review of Financial Studies*, *23*(6), 2229-2267. https://doi.org/10.1093/rfs/hhp127

Girau, E. A., Bujang, I., Paulus Jidwin, A., & Said, J. (2022). Corporate governance challenges and opportunities in mitigating corporate fraud in Malaysia. *Journal of Financial Crime*, *29*(2), 620-638. https://doi.org/10.1108/jfc-02-2021-0045

Goodwin-Stewart, J., & Kent, P. (2006). Relationship between external audit fees, internal audit and the audit committee. *Accounting and Finance*, *46*(13), 387-404.

Harymawan, I., & Nowland, J. (2016). Political connections and earnings quality: How do connected firms respond to changes in political stability and government effectiveness? *International Journal of Accounting & Information Management*, *24*(4), 339-356. https://doi.org/10.1108/ijaim-05-2016-0056

Hay, D. C., 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. https://doi.org/10.1111/j.1099-1123.2008.00367.x

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. https://doi.org/https://doi.org/10.1506/4XR4-KT5V-E8CN-91GX

He, Z., Ye, J., & Shi, X. (2020). Housing wealth and household consumption in urban China. *Urban Studies*, *57*(8), 1714-1732. https://doi.org/10.1177/0042098019844410

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica: Journal of the Econometric Society*, *47*(1), 153-161.

Hoitash, R., Hoitash, U., & Kurt, A. C. (2016). Do accountants make better chief financial officers? *Journal of Accounting and Economics*, *61*(2-3), 414-432. https://doi.org/10.1016/j.jacceco.2016.03.002

Hwang, B.-H., & Kim, H. H. (2017). It pays to write well. *Journal of Financial Economics*, *124*(2), 373-394. https://doi.org/10.1016/j.jfineco.2017.01.006

IFAC. (2010). Handbook of international quality control auditing, review, other assurance, and related services pronouncements.

Irvine, H. (2008). The global institutionalization of financial reporting: The case of the United Arab Emirates. *Accounting Forum*, *32*(2), 125–142.

Kukrer, E., & Saglam, N. (2023). Research on the role of internal audits in ensuring the effectiveness of internal control systems in the Turkish public sector. *Journal of Accounting, Business and Finance Research*, *16*(2), 65–77. https://doi.org/10.55217/102.v16i2.655

Li, C., & Zhang, Y. (2021). How does housing wealth affect household consumption? Evidence from macro-data with special implications for China. *China Economic Review*, *69*, 101655. https://doi.org/10.1016/j.chieco.2021.101655

Li, Y., Liu, K., Lu, X., Wang, B. Z., & Zhou, X. (2022). Welfare housing and household consumption in urban China. *Journal of Economic Behavior & Organization*, *195*, 326-334. https://doi.org/10.1016/j.jebo.2022.01.024

Lin, W.-T., & Cheng, K.-Y. (2013). The effect of upper echelons' compensation on firm internationalization. *Asia Pacific Journal of Management*, *30*(1), 73-90. https://doi.org/10.1007/s10490-011-9261-9

Mande, V., & Son, M. (2015). How do auditor fees affect accruals quality? Additional evidence. *International Journal of Auditing*, *19*(3), 238-251. https://doi.org/10.1111/ijau.12038

Ngelo, A. A., Harymawan, I., & Nasih, M. (2022). Ex-auditor executives and investment efficiency: Evidence from Indonesia. *Asian Review of Accounting*, *30*(4), 559-580. https://doi.org/10.1108/ara-01-2022-0015

Ngelo, A. A., Permatasari, Y., Rasid, S. Z. A., Harymawan, I., & Ekasari, W. F. (2022). Ex-auditor CEOs and corporate social responsibility (CSR) disclosure: Evidence from a voluntary period of sustainability report in Indonesia. *Sustainability*, *14*(18), 11418. https://doi.org/10.3390/su141811418

Pardamean Sinaga, H. D., Adji Samekto, F. X., & Emirzon, J. (2019). Ideal corporate criminal liability for the performance and accreditation of public accountant audit report in Indonesia. *International Journal of Economics and Business Administration*, *7*(4), 451–463. https://doi.org/10.35808/ijeba/357

PCAOB. (2015). PCAOB 12 identifying and assessing risks of material misstatement. Wiley Practitioner's Guide to GAAS 2015, 202, 893–905. https://doi.org/10.1002/9781118979037.ch75

Peng, M. W., Sun, S. L., & Markóczy, L. (2015). Human capital and CEO compensation during institutional transitions. *Journal of Management Studies*, *52*(1), 117-147. https://doi.org/10.1111/joms.12106

Qu, X., Yao, D., & Percy, M. (2020). How the design of CEO equity-based compensation can lead to lower audit fees: Evidence from Australia. *Journal of Business Ethics*, *163*(2), 281-308. https://doi.org/10.1007/s10551-018-4031-y

Reddy, K., Abidin, S., & You, L. (2015). Does corporate governance matter in determining CEO compensation in the publicly listed companies in New Zealand? An empirical investigation. *Managerial Finance*, *41*(3), 301–327. https://doi.org/10.1108/MF-09-2013-0253

Sharma, D. S., Ananthanarayanan, U., & Litt, B. (2021). CEO compensation, corporate governance, and audit fees: Evidence from New Zealand. *International Journal of Auditing*, *25*(1), 117-141. https://doi.org/10.1111/ijau.12211

Simunic, D. A. (1980). The pricing of audit services: Theory and evidence. *Journal of Accounting Research*, *18*(1), 161-190. https://doi.org/10.2307/2490397

Soepriyanto, G., Kuncoro, E. A., Zudana, A. E., & Averine, L. (2022). Does executive compensation affect accounting irregularities? Evidence from listed firms in Indonesia. *SAGE Open*, *12*(3), 215824402211111109. https://doi.org/10.1177/21582440221111109

Vafeas, N., & Waegelein, J. F. (2007). The association between audit committees, compensation incentives, and corporate audit fees. *Review of Quantitative Finance and Accounting*, *28*(3), 241-255. https://doi.org/10.1007/s11156-006-0012-9

Zhang, X., Bartol, K. M., Smith, K. G., Pfarrer, M. D., & Khanin, D. M. (2008). CEOs on the edge: Earnings manipulation and stock-based incentive misalignment. *Academy of Management Journal*, *51*(2), 241-258. https://doi.org/10.5465/amj.2008.31767230

Appendix 1. Definition of operational variable.

Symbol	Description	Source of data
Dependent variables		
AFEE	The natural logarithm of the number of audit fees incurred by the firm for one period	Annual report
Independent variables		
COMPDIR	Natural logarithm of the amount of compensation received by the directors	Financial report
Control variables		
BOARDSIZE	The number of all directors within the firm	Annual report
CEO_exAUDITOR	Dummy 1 is obtained if the CEO has a history as an auditor, dummy 0 otherwise	Annual report & bloomberg
CFO_exAUDITOR	Dummy 1 is obtained if the CFO has a history of being an auditor, dummy 0 otherwise	Annual report & bloomberg
MEETING_HELD	Number of meetings held by the board of directors	Annual report
BIG4	Dummy 1 if the company is audited by a BIG4 auditor, 0 otherwise	Annual report
ARL	The difference days between the close of the financial statements date and the date of signing the independent audit report by the auditor	Annual report
OPINION	Score 2 if unqualified, 1 if qualified, and 0 if there is no opinion or disclaimer.	Annual report
FIRMSIZE	The natural logarithm of the firm's total assets	Osiris
LEVERAGE	Total debt divided by total asset	Osiris
ROA	Total of earning before interest and tax divided by total asset	Osiris
LOSS	Dummy measurement by giving 1 if the firm had experienced losses and 0 if otherwise	Osiris