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Masaki Kusano and Yoshihiro Sakuma

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*Graduate School of Economics
Kyoto University
Yoshida-Hommachi, Sakyo-ku
Kyoto City, 606-8501, Japan*

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Masaki Kusano†

Graduate School of Economics, Kyoto University

kusano@econ.kyoto-u.ac.jp

Yoshihiro Sakuma

Faculty of Business Administration, Tohoku Gakuin University

sakumayo@mail.tohoku-gakuin.ac.jp

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Abstract

This study examines the effects of recognized versus disclosed lease arrangements in the Japanese audit market. In particular, we investigate whether the relations between recognized versus disclosed finance leases and audit fees and costs are different and whether these relations differ between audit fees and costs. We find that recognized finance leases are associated with audit fees while disclosed finance leases are not. Moreover, the associations between recognized versus disclosed finance leases and audit fees are substantially different. However, neither recognized nor disclosed finance leases are associated with audit costs, and recognized and disclosed finance leases have similar associations with audit costs. These results suggest that audit effort does not differ between recognized and disclosed finance leases and that a risk premium is charged to recognized finance leases relative to disclosed finance leases. Our results are not consistent with the view that investors' differential treatments between recognized and disclosed items are due to the reliability of accounting information. This study makes contributions to the accounting literature on recognition versus disclosure and has implications for the global convergence of accounting standards.

Keywords: Recognition versus Disclosure, Finance Leases, Audit Fees, Audit Costs

JEL Classification: M41, M42, M48

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† Corresponding Author

1. Introduction

In this study, we investigate the effects of recognized versus disclosed finance leases on auditors' decisions in Japan. In particular, we examine whether the relations between recognized versus disclosed finance leases and audit fees and costs are different and whether these relations differ between audit fees and costs.

Previous studies investigate whether capital market participants treat disclosed financial information differently from recognized amounts (e.g., Aboody, 1996; Ahmed et al., 2006; Davis-Friday et al., 1999; Israeli, 2015; Michels, 2017; Müller et al., 2015; Yu, 2013). Focusing on lease arrangements, prior literature examines the associations between recognized finance leases versus disclosed operating leases and firms' risk (Barone et al., 2014; Spencer and Webb, 2015). For instance, Dhaliwal et al. (2011) find that equity investors process recognized finance leases and disclosed operating leases differently when assessing firms' equity risk. Many previous studies report the value and risk differences between recognized and disclosed items in capital markets.

Prior literature indicates that one of the factors in investors' differential treatments between recognized and disclosed items is due to the reliability of accounting information (Bratten et al., 2013; Callahan et al., 2013; Davis-Friday et al., 2004; Müller et al., 2015; Schipper, 2007). In particular, auditors are more likely to scrutinize recognized amounts in financial statements than disclosed financial information in the notes (e.g., Schipper, 2007). Using investment property, Goncharov et al. (2014) suggest that auditors expend more effort to validate recognized fair value amounts relative to disclosed fair value information. Incremental audit effort expended for recognized items increases the reliability of accounting information; thus, capital market participants process disclosed and recognized items differently.

These previous studies provide useful evidence on recognition versus disclosure. However, our study differs from the previous literature on recognition versus disclosure in two ways. First, this study uses only finance leases when examining recognition versus disclosure of lease arrangements. Previous studies use different types of leases—finance

leases and operating leases—when investigating the relations between recognized versus disclosed leases and firms’ risk (Bratten et al., 2013; Dhaliwal et al., 2011; Sengupta and Wang, 2011). Their research design consists of a joint test of the conjectures that operating leases are economically similar to finance leases and that capital market participants process recognized and disclosed leases similarly. This assumption may be problematic since previous studies suggest that capital market participants perceive operating leases as having different economic characteristics compared with finance leases (Caskey and Ozel, 2015; Dhaliwal et al., 2011). Furthermore, previous studies have constructively capitalized operating lease obligations using future minimum lease payments. Since the assumptions underlying lease arrangements and the parameter estimates affect the estimated amounts, measurement errors concerning the constructively capitalized leases can occur, affecting the investigations of recognition versus disclosure (Bratten et al., 2013; Callahan et al., 2013).

Employing Japanese lease accounting as a research setting can overcome these limitations. Until 2008, Japanese firms could choose to either recognize or disclose finance leases that do not transfer ownership to lessees. Almost all Japanese firms avoided the capitalization of finance leases by choosing the off-balance sheet treatment. In March 2007, the Accounting Standard Board of Japan (ASBJ) issued Statement No. 13, *Accounting Standard for Lease Transactions* (ASBJ, 2007a) and Guidance No. 16, *Guidance on Accounting Standard for Lease Transactions* (ASBJ, 2007b). Statement No. 13 requires lessees to recognize all finance leases on their balance sheets retroactively, while Guidance No. 16 permits an important exception: Japanese firms are allowed to continue the off-balance sheet treatment of finance leases that do not transfer ownership to lessees contracted before the adoption of Statement No. 13. Japanese firms that choose this off-balance sheet treatment must disclose information equivalent to the capitalization of finance leases in the notes. Using this unique setting, previous studies investigate the associations between recognized versus disclosed finance leases and firms’ risk (e.g., Kusano, 2017). This study uses only finance leases and analyzes the effects of recognition

versus disclosure of lease arrangements in the audit market.

Second, our study investigates the relations between recognized versus disclosed finance leases and audit costs as well as audit fees. Previous studies analyze the associations between recognized versus disclosed items and audit fees (Goncharov et al., 2014; Krishnan and Sengupta, 2011). However, these studies fail to examine the effects of recognized versus disclosed items on auditors' decisions. Since audit fees reflect audit effort and a risk premium, using audit fee data only prevents a determination of whether audit fee increases are attributable to incremental audit effort or a higher risk premium. When auditors raise audit fees by charging a risk premium without increasing their audit effort, the higher audit fees will not improve the reliability of accounting information. Few studies discriminate between audit effort and a risk premium due to the public unavailability of audit cost data.

We overcome this data limitation using Japanese audit data. Japanese firms must disclose the number of audit team members based on their professional qualifications in annual securities reports (*Yuka Shoken Hokokusho* in Japanese). Previous studies that use these unique audit data employ the number of audit team members to measure audit costs, namely audit effort (Fukukawa, 2011; Kim and Fukukawa, 2013). Following the prior literature, this study uses the number of audit team members as the measure of audit costs (i.e., audit effort) and examines whether auditors expend more effort to validate recognized finance leases than disclosed finance leases.

To ensure an in-depth study of the effects of recognition versus disclosure of lease arrangements in the audit market, we investigate whether the associations between recognized versus disclosed finance leases and audit fees and costs are different and whether these associations differ between audit fees and costs. For audit fees, we find that recognized finance leases are associated with audit fees but that disclosed finance leases are not. In addition, recognized and disclosed finance leases have different associations with audit fees. For audit costs, we find that neither recognized nor disclosed finance leases are associated with audit costs, and that the associations between recognized versus

disclosed finance leases and audit costs are statistically similar. Our results suggest that audit effort does not differ between recognized and disclosed items and that a risk premium is charged to recognized amounts in financial statements relative to disclosed financial information in the notes.

This study makes three contributions to the accounting literature on recognition versus disclosure. First, our study extends this line of research by examining the effects of recognized versus disclosed *finance* leases in audit market. Most previous studies investigate recognized *finance* leases versus disclosed *operating* leases in capital markets (Barone et al., 2014; Spencer and Webb, 2015). However, using different types of leases makes it harder to distinguish the effects of recognition versus disclosure from the differences in the underlying economics of leases. In addition, constructively capitalizing operating leases causes measurement errors, affecting the analysis of recognition versus disclosure of lease arrangements. Only a few studies control for the type of leases when analyzing the associations between recognition versus disclosure of leases and firms' risk (Arata, 2012; Kusano, 2017). To the best of our knowledge, no study has examined the impacts of recognized versus disclosed finance leases on auditors. Employing a unique setting in which both recognized and disclosed finance leases are possible, this study investigates recognition versus disclosure of lease arrangements in audit market.

Second, our study extends the prior literature on recognition versus disclosure by using both audit fees and costs. A few previous studies analyze the relations between recognized versus disclosed items and audit fees (Goncharov et al., 2014; Krishnan and Sengupta, 2011). However, since audit fees reflect audit effort and a risk premium, these studies fail to discriminate between audit effort and a risk premium when examining the effects of recognized versus disclosed items on auditors' decisions. Our study overcomes their limitations by analyzing the associations between recognition versus disclosure and audit costs as well as audit fees.

Finally, our study provides important insights into the factors in the differential treatments between recognized and disclosed items. Prior literature shows that investors'

differential treatments between recognized and disclosed items are driven by investors' information processing and/or reliability of accounting information (e.g., Schipper, 2007). Our results suggest that auditors raise audit fees by charging a risk premium to recognized items relative to disclosed items without increasing their audit effort. These findings are not consistent with the view that investors' differential treatments between recognized and disclosed items are driven by the reliability of accounting information (Bratten et al., 2013; Callahan et al., 2013; Davis-Friday et al., 2004; Müller et al., 2015).

Our study also has implications for the global convergence of accounting standards. The International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) have criticized their current lease accounting standards since they do not provide complete operating lease information in the notes (IASB, 2009, 2010, 2013). In 2016, both accounting standard-setters issued new lease accounting standards, IFRS 16 and ASC 842, which require lessees to recognize both finance leases and operating leases on their balance sheets (FASB, 2016; IASB, 2016). Our results suggest that auditors are more likely to assess their business risk higher arising from recognized amounts relative to disclosed financial information and might thus raise audit fees when the new lease accounting standards are adopted.

The remainder of this paper is organized as follows. Section 2 summarizes accounting for leases in Japan, reviews prior research, and develops hypotheses. Section 3 explains our research design to investigate whether recognized finance leases are processed differently from disclosed finance leases when audit fees and costs are determined. Section 4 provides the reasons for selecting the samples and reports the descriptive statistics of the variables of this empirical research. Section 5 reports the associations between recognized versus disclosed finance leases and audit fees and costs. Finally, Section 6 provides the conclusions and discusses the limitations of this study.

2. Background and Hypothesis Development

2.1 Accounting for Leases in Japan

In June 1993, the Business Accounting Council (BAC) issued the lease accounting standard, *Statement of Opinions on Accounting Standards for Lease Transactions* (BAC, 1993). The Statement classified leases as either finance leases or operating leases and required the following accounting treatments: finance leases were recognized on lessees' balance sheets, and operating leases were disclosed in the notes to financial statements. These classifications and accounting treatments are similar to those of International Financial Reporting Standards (IFRS) (IAS 17) (IASB, 1982) and U.S. Generally Accepted Accounting Principles (GAAP) (ASC 840/SFAS 13) (FASB, 1976).

In Japan, finance leases are classified into two additional categories: finance leases that transfer ownership to lessees (FLO) and finance leases that do not transfer ownership to lessees (FLNO).¹ In principle, Japanese firms must recognize finance leases on their balance sheets. However, the BAC allowed Japanese firms to not capitalize FLNO on their balance sheets as long as information equivalent to the capitalization of finance leases was disclosed in the notes to financial statements. Almost all Japanese firms chose this off-balance sheet treatment.²

In 2002, the ASBJ, established as a private standard-setter in 2001, began to consider whether the off-balance sheet treatment of finance leases should be abolished to advance the global convergence of accounting standards. The ASBJ deliberated on this issue for four years and finally issued Statement No. 13 in March 2007. Statement No. 13 requires

¹ In January 1994, the Japanese Institute of Certified Public Accountants (JICPA) issued the implementation guidance, *Practical Guidelines on Accounting Standards for, and Disclosure of, Lease Transactions* (JICPA, 1994). The JICPA provided the following criteria for classifying leases as either finance leases or operating leases: (a) transfer of the ownership term, (b) grant of the right to purchase term, (c) custom-made or custom-built assets, (d) present value criterion, and (e) useful economic life criterion. Leases that meet any of these criteria are classified as finance leases; the rest are classified as operating leases. Furthermore, finance leases that meet criterion (a), (b), or (c) are classified as FLO; all others are classified as FLNO.

² The Japan Leasing Association (JLA) found that 99.7% of Japanese listed companies that prepared consolidated financial statements following Japanese GAAP chose the off-balance sheet treatment of FLNO (JLA, 2003).

lessees to recognize all finance leases—FLO and FLNO—on their balance sheets for fiscal years beginning on or after April 1, 2008.³ Contrariwise, Statement No. 13 does not change the accounting treatment of operating leases: they are still disclosed in the notes to financial statements. Statement No. 13 is very similar to IFRS (IAS 17) and U.S. GAAP (ASC 840/SFAS 13).

When the ASBJ issued Statement No. 13, it also issued Guidance No. 16, which permits Japanese firms to continue the off-balance sheet treatment of FLNO contracted before the adoption of Statement No. 13. Accordingly, under Statement No. 13, Japanese firms can choose either of the following two accounting treatments: (1) a principle treatment that requires lessees to recognize all finance leases on their balance sheets retroactively; or (2) an exception that permits lessees to recognize only finance leases contracted after the adoption of Statement No. 13. Thus, firms that choose the principle treatment have only recognized finance leases, while firms that choose the exception to the treatment have both recognized and disclosed finance leases. Japanese firms that choose the exception (i.e., the off-balance sheet treatment of preexisting FLNO) must disclose information equivalent to the capitalization of finance leases, including the amounts of finance lease obligations. Employing this unique setting, we can investigate recognized versus disclosed lease arrangements by focusing solely on finance leases.

2.2 Prior Studies

2.2.1 Recognition versus Disclosure in Capital Markets

Prior studies have examined whether capital market participants process recognized amounts in financial statements differently from disclosed financial information in the notes (e.g., Aboody, 1996; Ahmed et al., 2006; Davis-Friday et al., 1999; Israeli, 2015; Michels, 2017; Müller et al., 2015; Yu, 2013). For instance, Israeli (2015) investigates the associations between recognized versus disclosed fair values of investment property and

³ Early adoption of Statement No. 13 was permitted for fiscal years beginning on or after April 1, 2007.

stock prices (stock returns). Using European real estate firms, he shows that equity investors place smaller valuation weights on disclosed financial information in the notes compared to recognized amounts in financial statements.

Furthermore, prior literature analyzes the value and risk relevance of recognized versus disclosed lease arrangements (Barone et al., 2014; Spencer and Webb, 2015). In particular, previous studies investigate the associations between recognized finance leases versus disclosed operating leases and firms' risk (Bratten et al., 2013; Dhaliwal et al., 2011; Sengupta and Wang, 2011). For instance, Dhaliwal et al. (2011) find that equity investors treat recognized finance leases differently from disclosed operating leases when assessing firms' equity risk. However, Bratten et al. (2013) and Sengupta and Wang (2011) report that recognized finance leases and disclosed operating leases have similar associations with firms' risk.

These studies provide useful evidence on the effects of recognized versus disclosed lease arrangements on capital market participants. However, they have serious research design issues. First, they use different types of leases—finance leases and operating leases—when analyzing the effects of recognition versus disclosure on firms' risk. It is necessary to satisfy the assumption that operating leases are very similar to finance leases from an economic perspective. If this assumption is not satisfied, a joint hypothesis must be tested about whether capital market participants perceive operating leases as having similar economic characteristics compared with finance leases and whether they process disclosed and recognized leases similarly. In fact, Caskey and Ozel (2015) indicate that operating leases are economically different from finance leases. These results suggest that differences in the underlying economics of lease transactions would affect the relations between recognized versus disclosed leases and firms' stock prices (returns) and risk.

Second, prior studies constructively capitalize operating lease obligations using future minimum lease payments when examining whether disclosed financial information is processed differently from recognized amounts. Since the assumptions underlying lease arrangements and the parameter estimates affect the estimated amounts, measurement

errors concerning constructively capitalized leases could occur, affecting the investigation of recognition versus disclosure (Bratten et al., 2013; Callahan et al., 2013). For instance, Bratten et al. (2013) show that the remaining lease contract lifetime has substantial effects on the measurement errors of operating lease obligations. These results suggest that the measurement errors of constructively capitalized operating leases have significant effects on the value and risk relevance of lease arrangements.

Using Japanese lease accounting as the research setting can prevent the aforementioned research design issues. In Japan, firms that choose the off-balance sheet treatment of finance leases must disclose information equivalent to the capitalization of finance leases, including point estimates of finance lease obligations. In this case, financial statement users do not have to estimate the amounts of disclosed finance lease obligations when making their decisions. It is thus possible to use only finance leases when analyzing recognition versus disclosure of lease arrangements. Employing this unique setting, some prior studies examine the risk relevance of recognized and disclosed finance lease obligations (e.g., Arata, 2012; Kusano, 2017).

For instance, Arata (2012) investigates whether bond investors process recognized and disclosed finance leases differently using bond spreads. She finds differences in the risk relevance of finance leases for explaining firms' credit risk. Furthermore, Kusano (2017) examines whether and why equity investors treat recognized finance leases differently from disclosed finance leases when assessing firms' equity risk. He finds that the relations between recognized versus disclosed finance leases and firms' equity risk are substantially different but that, for firms with higher levels of institutional ownership, recognized and disclosed finance leases have the same risk relevance for explaining firms' equity risk. Arata (2012) and Kusano (2017) provide useful evidence on the effects of recognition versus disclosure of lease arrangements in capital markets. Unlike these studies, however, our study examines whether auditors treat disclosed finance leases differently from recognized finance leases when determining audit fees and costs.

2.2.2 Effects of Recognition versus Disclosure on Audit Fees and Costs

Prior literature reports that firms' (i.e., clients') business risk has significant effects on the risk that audit firms will suffer losses resulting from the engagement with clients—auditors' business risk (e.g., Brumfield et al., 1983; Johnstone, 2000; O'Malley, 1993). Future possible losses such as litigation and reputational losses are more likely to arise when firms are financially distressed and experience business failure.

Auditors address their business risk by increasing their audit investment (i.e., audit effort) and/or charging a risk premium (e.g., Houston et al., 2005; Lyon and Maher, 2005; Pratt and Stice, 1994; Simunic, 1980).⁴ When auditors' business risk increases, they expend additional audit effort, such as by increasing audit hours or assigning more experienced staff to the audit team, in order to avoid economic losses. Increasing audit investment raises audit costs and thus increases audit fees. Furthermore, auditors who cannot respond to their business risk by expending greater audit effort will charge a risk premium to cover future possible losses, including litigation and reputational losses. In this case, auditors will increase audit fees without raising audit costs. Using proprietary data from an audit firm, previous studies find that auditors respond to their business risk by either increasing audit effort or charging a higher risk premium, or both (e.g., Bedard and Johnstone, 2004; Bell et al., 2001; Johnstone and Bedard, 2001, 2003; O'Keefe et al., 1994; Simunic and Stein, 1996).

However, it is not clear whether auditors treat disclosed and recognized items similarly when addressing their business risk. Only a few studies analyze the effects of recognized versus disclosed items on audit fees (Goncharov et al., 2014; Krishnan and Sengupta, 2011). For instance, Goncharov et al. (2014) report that audit fees are higher for firms that recognize the fair value of investment property in financial statements than for firms that disclose it in the notes. Their results suggest that recognized amounts are

⁴ Auditors can also address auditors' business risk by resigning from the audit engagement (e.g., Kim and Park, 2014; Krishnan and Krishnan, 1997; Shu, 2000; Stice, 1991). For instance, Kim and Park (2014) report that auditors resign from the audit engagement when clients' aggressive real earnings management increases auditors' business risk.

processed differently from disclosed financial information when audit fees are determined. Contrariwise, Krishnan and Sengupta (2011) find that the associations between recognized versus disclosed pension obligations and audit fees are statistically similar. Their findings suggest that auditors process recognized and disclosed items similarly when determining audit fees.

These studies provide useful evidence on the relations between recognized versus disclosed items and audit fees. However, they fail to investigate the effects of recognition versus disclosure on auditors' decisions because audit fees reflect audit effort and a risk premium. Accordingly, using audit fee data only renders impossible any determination of whether auditors expend incremental audit effort or charge a higher risk premium when addressing their business risk. Previous studies show that the reliability of accounting information is one of the factors in investors' differential treatments between recognized amounts and disclosed financial information (Bratten et al., 2013; Callahan et al., 2013; Davis-Friday et al., 2004; Müller et al., 2015). In particular, prior literature suggests that auditors are more likely to scrutinize recognized items than disclosed items (e.g., Schipper 2007). Auditors' decisions about whether to increase audit effort or charge a risk premium have significant effects on the reliability of accounting information.

Japanese firms have to disclose the number of audit team members based on their professional qualifications. In particular, the numbers of certified public accountants including signing partners, junior accountants, and other professional staff are disclosed in annual reports. Prior literature uses the number of audit team members as a measure of audit costs (Fukukawa, 2011; Kim and Fukukawa, 2013). Employing these unique Japanese audit data, this study examines the effects of recognized versus disclosed finance leases on audit costs as well as on audit fees. Accordingly, our research extends the prior literature on recognition versus disclosure by providing useful evidence on whether auditors are more likely to scrutinize recognized items than disclosed items in response to higher auditors' business risk.

2.3 Hypothesis Development

Capital market participants assess firms' risk using accounting information, including recognized amounts in financial statements and disclosed financial information in the notes. If lease arrangements have substantial effects on firms' risk, capital market participants incorporate lease information into their decision making regardless of the accounting treatment. In fact, prior literature shows that capital market participants amend firms' leverage using off-balance sheet leases when assessing firms' risk (e.g., Altamuro et al., 2014; Beattie et al., 2000; Bowman, 1980; Ely, 1995; Imhoff et al., 1993; Kraft, 2015; Kusano, 2018). Accordingly, even when firms employ off-balance sheet leases, lease arrangements have significant effects on firms' business risk, including the risk of financial distress.

Firms' business risk also affects auditors' business risk arising from future possible losses, including litigation and reputational losses (e.g., Brumfield et al., 1983; Johnstone, 2000; O'Malley, 1993). If lease arrangements increase auditors' business risk, auditors would respond to their business risk by expending additional audit effort, such as by increasing their audit hours or assigning more experienced staff to the audit team. Incremental audit effort results in raising audit costs and fees. Moreover, auditors would address their business risk by charging a higher risk premium and thus raise audit fees to cover future possible losses. Therefore, auditors would increase audit investment and/or charge a risk premium in response to higher auditors' business risk.

Thus, this study investigates the effects of disclosed finance leases on audit fees and costs. Accordingly, we develop the following hypotheses to examine the associations between disclosed finance lease obligations and audit fees and costs:

Hypothesis 1(a): Disclosed finance lease obligations in the notes are associated with audit fees.

Hypothesis 1(b): Disclosed finance lease obligations in the notes are associated with audit costs.

Even though disclosed finance leases are associated with audit fees and costs, it is not

clear whether disclosed and recognized finance leases are treated similarly when audit fees and costs are determined. In fact, previous studies provide mixed evidence on the effects of recognized versus disclosed items on audit fees (Goncharov et al., 2014; Krishnan and Sengupta, 2011). The effects of recognized versus disclosed finance leases on audit fees and costs are thus empirical issues.

We predict that audit fees and costs differ between recognition and disclosure since recognized amounts are more likely to affect auditors' business risk than disclosed financial information. Prior literature reports that firms manage reported accounting numbers in financial statements or misstate financial statements due to contractual and capital market incentives (e.g., Dechow et al., 2011; Dechow and Skinner, 2000; Song et al., 2016). Previous studies also show that earnings management and material misstatements have substantial effects on auditors' business risk (e.g., Heninger, 2001; Palmrose and Scholz, 2004). These results suggest that, since firms are more likely to manage or manipulate reported accounting numbers in financial statements than disclosed financial information in the notes, recognized items have more significant effects on auditors' business risk than disclosed items have. Higher auditors' business risk would motivate auditors to either increase audit investment in defense of future litigation or reputational losses or charge a higher risk premium to cover future losses, or both (e.g., Greiner et al., 2017; Houston et al., 1999, 2005; Krishnan et al., 2013). Therefore, since auditors are more likely to assess auditors' business risk higher arising from recognized amounts than disclosed financial information, they would discriminate between recognized and disclosed items when determining audit fees and costs.

Thus, this study investigates whether disclosed finance leases are treated differently from recognized finance leases when audit fees and costs are determined. Accordingly, we develop the following hypotheses to examine the associations between recognized versus disclosed finance lease obligations and audit fees and costs:

Hypothesis 2(a): The association between disclosed finance leases and audit fees is weaker than the association between recognized finance leases and audit fees.

Hypothesis 2(b): The association between disclosed finance leases and audit costs is weaker than the association between recognized finance leases and audit costs.

3. Research Models for Testing Hypotheses

To test Hypotheses 1 and 2, we investigate whether disclosed finance leases are associated with audit fees and costs and whether disclosed finance leases are treated differently from recognized finance leases when audit fees and costs are determined. We examine the effects of recognized versus disclosed finance leases on audit fees and costs by estimating the following regression models:

$$\begin{aligned}
 Fee_{i,t} = & \alpha_0 + \alpha_1 FLO_on_{i,t} + \alpha_2 FLO_off_{i,t} + \alpha_3 Debt_{i,t} + \alpha_5 ROA_{i,t} + \alpha_5 Loss_{i,t} \\
 & + \alpha_6 Liquidity_{i,t} + \alpha_7 GC_{i,t} + \alpha_8 Size_{i,t} + \alpha_9 Complexity_{i,t} + \alpha_{10} Sub_{i,t} \\
 & + \alpha_{11} FO_{i,t} + \alpha_{12} Big3_{i,t} + \sum_j \alpha_j Industry\ Indicator \\
 & + \sum_k \alpha_k Year\ Indicator + \varepsilon
 \end{aligned} \tag{1}$$

$$\begin{aligned}
 Cost_{i,t} = & \beta_0 + \beta_1 FLO_on_{i,t} + \beta_2 FLO_off_{i,t} + \beta_3 Debt_{i,t} + \beta_4 ROA_{i,t} + \beta_5 Loss_{i,t} \\
 & + \beta_6 Liquidity_{i,t} + \beta_7 GC_{i,t} + \beta_8 Size_{i,t} + \beta_9 Complexity_{i,t} + \beta_{10} Sub_{i,t} \\
 & + \beta_{11} FO_{i,t} + \beta_{12} Big3_{i,t} + \sum_j \beta_j Industry\ Indicator \\
 & + \sum_k \beta_k Year\ Indicator + \epsilon
 \end{aligned} \tag{2}$$

where Fee is the natural log of audit fees in fiscal year t. Cost is the natural log of the number of accounting and non-accounting professionals on an audit team in fiscal year t.⁵

⁶ FLO_on is recognized finance lease obligations divided by the book value of equity at the

⁵ Following the prior literature, we exclude the number of signing partners from the number of audit team members to measure audit effort (Hossain et al., 2017; Kim and Fukukawa, 2013). We also include the number of signing partners into Cost and examine the relations between recognized versus disclosed finance leases and audit costs. Unreported results do not change our main results.

⁶ Many Japanese firms provide point estimates of the number of accounting and non-accounting professionals on an audit team. However, some firms disclose range estimates of the numbers of certified public accountants, junior accountants, and other professional staff. When firms provide range estimates of the number of audit team members, our study uses the median number. In addition, some firms do not disclose the classification of audit team members but report only the total number of audit team members. Excluding these firms from our sample is similar to our main results (unreported table).

end of fiscal year t . FLO_off is disclosed finance lease obligations divided by the book value of equity at the end of fiscal year t . Debt is debt (excluding recognized finance lease obligations) divided by the book value of equity at the end of fiscal year t . ROA is ordinary income divided by the sum of total assets and disclosed finance lease assets at the end of fiscal year t . Loss is an indicator variable that takes the value of 1 if a firm reports a net loss during fiscal year $t-1$ or fiscal year t , and 0 otherwise. Liquidity is the sum of cash and trading securities divided by the sum of total assets and disclosed finance lease assets at the end of fiscal year t . GC is an indicator variable that takes the value of 1 if a firm receives a going concern opinion in fiscal year t , and 0 otherwise. Size is the natural log of the sum of total assets and disclosed finance lease assets at the end of fiscal year t . Complexity is the sum of receivables and inventories divided by the sum of total assets and disclosed finance lease assets at the end of fiscal year t . Sub is the natural log of one plus the number of subsidiaries. FO is foreign ownership at the end of fiscal year t . Big3 is an indicator variable that takes the value of 1 if an auditor is a Big 3 audit firm (i.e., Azsa, ShinNihon, and Tohmatsu), and 0 otherwise.⁷

We estimate regression models (1) and (2) using ordinary least squares (OLS) with robust standard errors clustered at the firm level. Hypothesis 1 predicts that disclosed finance leases are positively associated with audit fees and costs. A higher FLO_off leads to increasing in auditors' business risk because firms with a high reliance on disclosed finance leases are expected to have higher business risk. In response to higher auditors' business risk, auditors would expend incremental audit effort and thus increase audit costs and fees. Moreover, auditors would address their business risk by charging a risk

⁷ The Japanese audit market is similar to audit markets in the U.S. and many other countries where the Big 4 audit firms dominate the audit market. Each Japanese Big 4 audit firm has an alliance with an international Big 4 audit firm: Arata is a PricewaterhouseCoopers (PwC) affiliate; Azsa is a KPMG affiliate; ShinNihon is an Ernst & Young affiliate; and Tohmatsu is a Deloitte Touche Tohmatsu affiliate. However, Arata (currently PwC Arata) is much smaller than the other Big 4 audit firms (i.e., Azsa, ShinNihon, and Tohmatsu) in terms of the number of clients and certified public accountants (Fukukawa, 2011). Following the prior literature (e.g., Hossain et al., 2017; Fukukawa, 2011; Kim and Fukukawa, 2013), we use Big3 as our indicator variable to control for auditor related factors. We also include the Big 4 audit firms into an indicator variable that takes the value of 1 if an auditor is a Big 4 audit firm, and 0 otherwise. Using this variable does not change our main results (unreported table).

premium, thereby increasing audit fees. Accordingly, a higher FLO_off results in higher Fee and Cost. We predict that the sign of the coefficients in the regression models will be positive ($\alpha_2 > 0$ and $\beta_2 > 0$). In addition, similar to the case with disclosed finance lease obligations, firms with a greater reliance on debt and recognized finance lease obligations are expected to have higher business risk and thus increase auditors' business risk. Auditors respond to their business risk by increasing audit effort or charging a risk premium, thereby raising audit fees and costs. Thus, we predict that the sign of the coefficients of Debt and FLO_on will be positive.

Next, Hypothesis 2 predicts that, even though disclosed finance leases are associated with audit fees and costs, these finance leases are treated differently from recognized finance leases when audit fees and costs are determined. Prior literature reports that earnings management and material misstatements have substantial effects on auditors' business risk (e.g., Heninger, 2001; Palmrose and Scholz, 2004). In response to auditors' business risk, auditors would increase audit effort for or charge a risk premium to recognized finance leases relative to disclosed finance leases. Accordingly, the associations between recognized versus disclosed finance leases and audit fees and costs can be different. The relations between the coefficients in the regression models are expected to be $\alpha_1 > \alpha_2$ and $\beta_1 > \beta_2$. We test these predictions using the F test and the likelihood ratio (LR) test of equality between the coefficients of FLO_on and FLO_off.

We include control variables for audit fees and costs. Previous studies report that clients' risk, size, and complexity as well as other client and auditor related factors are associated with audit fees and costs (e.g., Bae et al., 2016; DeFond and Zhang, 2014; Fukukawa, 2011; Hay et al., 2006; Hossain et al., 2017; Kim and Fukukawa, 2013). To control for clients' risk, in addition to leverage (Debt and FLO_on), we employ profitability (ROA) and financial risk (Loss, Liquidity, and GC) as control variables.⁸ When clients' risk

⁸ We replace GC with MOPINION, an indicator variable that takes the value of 1 if a firm receives other than an unqualified opinion in the fiscal year, and 0 otherwise. Unreported results are qualitatively similar to our main results.

is higher, auditors expend greater audit effort and/or charge a higher risk premium, thereby raising audit fees and costs. Accordingly, the sign of the coefficients of ROA and Liquidity will be negative, but the sign of the coefficients of Loss and GC will be positive. Moreover, to control for clients' size, we employ firm size (Size) as a control variable. In addition, we include inherent risk (Complexity) and the number of subsidiaries (Sub) to control for clients' complexity. When a client is larger and more complex, auditors need more audit effort to conduct the audit, which leads to higher audit fees and costs. Accordingly, the sign of the coefficients of Size, Complexity, and Sub is expected to be positive.

In addition to clients' risk, size, and complexity, we also include foreign ownership (FO) to control for other client related factors. When foreign ownership is higher, foreign investors demand more audit effort from auditors to monitor management. In response to their expectation, auditors expend incremental audit effort and thus raise audit fees and costs. Furthermore, we employ auditor related factors as a control variable. We include an indicator variable that takes the value of 1 if an auditor is a Big 3 audit firm, and 0 otherwise (Big3). Big N audit firms are expected to provide higher audit quality than non-Big N audit firms. Big N audit firms increase audit investment to provide higher audit quality, thereby raising audit fees and costs. Accordingly, the sign of the coefficients of FO and Big3 will be positive. Finally, to control for industry and year fixed effects, we include Industry Indicators and Year Indicators in regression models (1) and (2).^{9, 10}

4. Sample Selection and Descriptive Statistics

The sample is selected from the period 2009–2013 using the following criteria:

⁹ This study defines industries using the Nikkei industry classification of 36 industries (*Nikkei gyousyu chu-bunrui*).

¹⁰ Previous studies also use a first year audit dummy that takes the value of 1 if an audit firm is an initial audit engagement for a firm in the first year as a control variable for audit fees and costs (e.g., Bae et al., 2016; Kim and Fukukawa, 2013). Following the prior literature, our study also includes this variable and investigates the relations between recognized versus disclosed finance leases and audit fees and costs. Unreported results show that including this control variable does not change our main results and that the coefficients of the variable are not statistically significant.

- (i) Firms that adopt Japanese GAAP are listed on stock exchanges in Japan.
- (ii) Banks, securities firms, insurance, and other financial firms are excluded.¹¹
- (iii) The firm's fiscal year ends in March.¹²
- (iv) The accounting period has not changed during the fiscal year.
- (v) Firms with joint auditors are excluded.

This study obtains data on financial statements from the *Nikkei NEEDS Financial QUEST* database. In addition, this study hand-collects audit data from annual securities reports. This study examines the effects of recognized versus disclosed finance leases on audit fees and costs using the same time period. Since Statement No. 13 was mandatorily adopted for fiscal years beginning on and after April 1, 2008, this study covers the period after March 31, 2009.¹³ In addition, since the ChuoAoyama's demise and the introduction of the internal control audit under Japanese equivalent of SOX changed the Japanese audit market considerably, including the audit environment and fees (e.g., Fukukawa, 2011; Machida and Yazawa, 2012; Sakuma, 2008; Skinner and Srinivasan, 2012), this study starts the sample period in March 2009.^{14, 15}

¹¹ This study excludes firm-year observations for financial institutions because they tend to be net lessors.

¹² Because most Japanese listed firms end their fiscal year in March, this study examines Japanese firms with a fiscal-year end in March.

¹³ March 31, 2009 is the first fiscal year end after the mandatory adoption of Statement No. 13. Accordingly, in 2009, we include into our sample only firms with a fiscal-year end on March 31, 2009. For 2010 to 2013, our sample includes firms with a fiscal-year end in March. We also include only firm-year observations with a fiscal-year end on March 31 into our sample. Unreported results do not change our main results.

¹⁴ ChuoAoyama—a former PwC affiliate in Japan—was one of the Big 4 audit firms and was implicated in a major accounting fraud at a large cosmetics company (Kanebo). In May 2006, the Japanese regulatory agency issued a suspension order to ChuoAoyama that forbade it from providing audit services for two months. PwC established a new audit firm, Arata, in response to this suspension. After the two-month suspension, ChuoAoyama changed its name to “Misuzu” but never recovered from the reputational damage. Finally, Misuzu decided to dissolve in February 2007 and transferred its audit staff and clients to the other Big 4 audit firms (i.e., Azsa, ShinNihon, and Tohmatsu). During this process, a local office of Misuzu in Kyoto established a new audit firm—Kyoto—which is currently a member firm of PwC (PwC Kyoto).

¹⁵ Japanese equivalent of SOX was introduced in response to several high-profile accounting frauds. Under Japanese equivalent of SOX, auditors must conduct an audit of internal control reports submitted by firm managers for fiscal years beginning on and after April 1, 2008. Machida and Yazawa (2012) report that the mean and median of audit fees in 2009 increased by 54.09% and 46.01% over the previous year. Their results suggest that the introduction of internal control audits results in a significant increase in audit fees.

Under the aforementioned criteria, the initial sample consists of 9,569 observations from consolidated financial statements. This study requires accounting data, including finance leases. Firms that lack data on the dependent or independent variables are excluded from the sample.¹⁶ The data are available for a sample of 8,211 firm-year observations. Furthermore, 14 observations with negative total assets or a negative book value of equity at the end of the fiscal year are excluded. To control for outliers, observations of continuous variables are trimmed by year at the top and bottom 1%. The final sample consists of 7,149 firm-year observations.¹⁷ It also includes 5,097 firm-year observations in which the exception (i.e., off-balance sheet treatment of preexisting FLNO) is chosen in response to the adoption of Statement No. 13.

<Insert Table 1>

Table 1 presents the descriptive statistics for the variables used in this study. This table reports that the mean (median) of Fee, the natural log of audit fees, is 3.7604 (3.6636). It also reports that the mean (median) of Cost, the natural log of the number of accounting and non-accounting professionals on an audit team, is 2.5331 (2.5649). In addition, the means (medians) of FLO_on and FLO_off, which are recognized and disclosed finance lease obligations, are 0.0219 (0.0055) and 0.0113 (0.0012), respectively.

<Insert Table 2>

Table 2 presents the correlation matrix for the variables used in this study. The upper right-hand area of the table reports the Spearman rank-order correlations, and the lower left-hand area of the table reports the Pearson correlations. In the Spearman correlation analysis, FLO_on is positively and significantly associated with Fee and Cost. In the Spearman correlation analysis, FLO_off is positively and significantly associated with Fee. These results suggest that recognized finance lease obligations are associated with audit fees and costs and that disclosed finance lease obligations are associated with audit fees.

¹⁶ We also include Japanese firms that do not use finance leases into our sample. Unreported results are consistent with our main results.

¹⁷ Our final sample does not include an SEC registrant.

Most of the correlations between the independent variables are relatively low.¹⁸

5. Results

5.1 Main Results

First, using regression models (1) and (2), this study examines whether disclosed finance leases are associated with audit fees and costs. Table 3 reports the results for Hypotheses 1(a) and 1(b). Industry and year fixed effects are included but not tabulated. Columns (1) and (2) present the results on the associations between finance leases and audit fees, and columns (3) and (4) present the results on the associations between finance leases and audit costs, respectively.

<Insert Table 3>

Columns (1) and (3) of Table 3 report the results for a sample of all firms in this study. In column (1), the coefficient of FLO_on is positive and statistically significant at the 5% level. This result shows that recognized finance lease obligations are associated with audit fees. However, the coefficient of FLO_off, -0.0910 , is not consistent with the expected sign and is not statistically significant.¹⁹ Thus, our evidence does not indicate that disclosed finance lease obligations are associated with audit fees. Column (3) presents the results on the relations between finance leases and audit costs. The coefficients of FLO_on and FLO_off are positive but are not statistically significant. The results indicate that neither recognized nor disclosed finance lease obligations are associated with audit costs. Thus, our evidence is not consistent with Hypotheses 1(a) and 1(b).

When Statement No. 13 was adopted, Japanese firms chose either the principle treatment or the exception to the treatment. Firms that choose the principle treatment

¹⁸ However, Table 2 shows that some correlations between the independent variables are relatively high. For instance, the coefficients between Size and Sub are 0.7556 (Pearson correlation) and 0.7326 (Spearman correlation), respectively. When we estimate the regression models using OLS, we calculate the variance inflation factor (VIF). The values of VIF are lower than 10. The results suggest that the effects of multicollinearity are not concerned.

¹⁹ We also exclude FLO_on from regression model (1) and reinvestigate the associations between disclosed finance leases and audit fees. Unreported results show that the coefficients of FLO_off are not statistically significant.

recognize all finance leases on their balance sheets retroactively; thus, they have only recognized finance leases. However, firms that choose the exception to the treatment have both disclosed and recognized finance leases. Firms that choose the exception are required to recognize finance leases contracted subsequent to Statement No. 13 adoption but are allowed to disclose in the notes finance leases that do not transfer ownership to lessees (i.e., FLNO) contracted prior to Statement No. 13 adoption.

To mitigate the cross-sectional effects, we focus on firms that choose the exception and investigate the effects of recognized versus disclosed finance leases on audit fees and costs. In column (2), the coefficient of FLO_on is positive and statistically significant at the 5% level, but the coefficient of FLO_off is negative and is not statistically significant. Our results indicate that recognized finance leases are associated with audit fees but that disclosed finance leases are not. Column (4) shows that the coefficients of FLO_on and FLO_off are not statistically significant. The results also show that recognized and disclosed finance leases are not associated with audit costs. Once again, our results are not consistent with Hypotheses 1(a) and 1(b).

Next, this study investigates whether recognized and disclosed finance leases are processed differently when audit fees and costs are determined. Using the F test and the LR test, this study examines the equality of the coefficients of FLO_on and FLO_off. Table 4 presents the results for Hypotheses 2(a) and 2(b). Columns (1) and (2) report the results for audit fees, and columns (3) and (4) report the results for audit costs, respectively.

<Insert Table 4>

In columns (1) and (2), the F tests report that the coefficients of FLO_on are significantly different from the coefficients of FLO_off. In addition, the LR tests show that the coefficients of FLO_on are statistically different from the coefficients of FLO_off at the 1% level. These results reveal that associations between recognized versus disclosed finance leases and audit fees are substantially different. This evidence is consistent with Hypothesis 2(a). Columns (3) and (4) present the results on the relations between recognized versus disclosed finance leases and audit costs. Both the F tests and the LR

tests report that the coefficients of FLO_{on} are not significantly different from the coefficients of FLO_{off}. These results suggest that recognized and disclosed finance leases are processed similarly when audit costs are determined. This evidence is not consistent with Hypothesis 2(b).

In summary, we investigate the relations between recognized versus disclosed finance leases and audit costs as well as audit fees. We find differences in the relations between recognized versus disclosed finance leases and audit fees. However, using the number of audit team members as the measure of audit costs (i.e., audit effort), we find that disclosed finance leases are treated similarly to recognized finance leases when audit costs are determined. Our results indicate that audit fees are higher for recognized finance leases than for disclosed finance leases but that audit costs do not differ between recognized and disclosed finance leases. These results suggest that auditors raise audit fees by charging a risk premium to recognized items relative to disclosed items without increasing their audit effort. Our results also indicate that the impacts of recognized finance leases on audit fees are greater than the impacts of recognized finance leases on audit costs. For instance, in columns (1) and (3) of Table 3, *ceteris paribus*, an increase in one standard deviation in recognized finance leases increases audit fees and costs by around 1.43% ($e^{0.3336 \times 0.0425} - 1$) and 0.50% ($e^{0.1184 \times 0.0425} - 1$), respectively. These results also suggest that auditors charge a risk premium to recognized finance leases without increasing their audit effort. Prior literature suggests that incremental audit effort for recognized items increases the reliability of accounting information and thus that capital market participants treat recognized amounts differently from disclosed financial information (e.g., Schipper, 2007). However, our results are not consistent with the view that investors' differential treatments between recognized and disclosed finance leases are driven by the reliability of accounting information.

5.2 Robustness Tests

The results thus far indicate that the relations between recognized versus disclosed

finance leases and audit fees are substantially different but that the relations between recognized versus disclosed finance leases and audit costs are statistically similar. This subsection describes the analyses conducted to determine the robustness of our findings.

First, we retest Hypotheses 1 and 2 by considering that audit fees and costs are determined simultaneously. Using seemingly unrelated regression, we reinvestigate the associations between recognized versus disclosed finance leases and audit fees and costs. Unreported results show that disclosed finance leases are not associated with audit fees and costs. Moreover, the associations between recognized versus disclosed finance leases and audit fees are significantly different. However, recognized and disclosed finance leases are treated similarly when audit costs are determined. These results are consistent with our main findings.

Second, we reexamine Hypotheses 1 and 2 by including operating lease obligations into equations (1) and (2). Unlike U.S. firms, Japanese firms were more likely to use finance leases than operating leases before the adoption of Statement No. 13 (Kusano et al., 2015). However, Statement No. 13 requires lessees to recognize finance leases on their balance sheets. In response to the adoption of Statement No. 13, Japanese firms are more likely to transfer leases from finance leases to operating leases and employ operating leases (e.g., Kusano, 2018; Kusano et al., 2016). To mitigate the effects of changes in the lease accounting standard, we include future minimum lease payments under operating leases when reinvestigating Hypotheses 1 and 2. Unreported results show that disclosed finance and operating leases are not associated with audit fees and costs. In addition, recognized and disclosed finance leases have different associations with audit fees, but they have similar associations with audit costs. These results are also consistent with our main findings.

Finally, using the next year's audit fees and costs, we reinvestigate whether the associations between recognized versus disclosed audit fees and costs are different and whether these associations differ between audit fees and costs. Prior literature indicates that auditors and firms determine their audit fees and sign an engagement letter (audit

contract) by the end of the first quarter of the fiscal year (Hackenbrack et al., 2014). When auditors make an audit plan, the audit planning decision would reflect firms' business risk prior to the fiscal year.²⁰ Accordingly, we reexamine the effects of recognized versus disclosed finance leases on the next year's audit fees and costs. Table 5 presents the results of Hypotheses 1 and 2 using the next year's audit fees and costs. Columns (1) and (3) present the results for a sample of all firms in this study, and columns (2) and (4) present the results for firms that choose the exception, respectively.

<Insert Table 5>

Columns (1) and (2) report the results for audit fees, and columns (3) and (4) report the results for audit costs. In columns (1)–(4), the coefficients of FLO_off are not statistically significant. These results suggest that disclosed finance leases are not associated with audit fees and costs. In columns (1) and (2), the F tests report that the coefficients of FLO_off are not substantially different from the coefficients of FLO_on. However, the LR tests reveal that the coefficients of FLO_off are significantly different from the coefficients of FLO_on at the 5% level. These results suggest that the associations between recognized versus disclosed finance leases and audit fees are partially different. In columns (3) and (4), the F tests and the LR tests report that the coefficients of FLO_off are statistically similar to the coefficients of FLO_on. Our results suggest that disclosed finance leases are processed similarly to recognized finance leases when audit costs are determined. Therefore, the main results are unchanged after several robustness tests, suggesting that our inferences are robust.

5.3 Additional Analysis

When lease arrangements have significant effects on auditors' business risk, auditors might be more likely to respond to their business risk arising from firms with a high

²⁰ In addition to firms' past business risk, auditors estimate firms' future business risk and incorporate it into audit fees (Hackenbrack et al., 2014; Stanley, 2011). For instance, Hackenbrack et al. (2014) report the positive associations between "bad news" events after signing audit contract and changes in audit fees. Their results are consistent with the view that audit fees reflect firms' future business risk.

reliance on finance leases than firms with a low reliance on finance leases. We divide our sample between firms with a low and a high reliance on finance leases and conduct an additional analysis to investigate the effects of recognized versus disclosed finance leases on audit fees.²¹ We partition our sample based on the median of the ratio of finance leases, which is finance lease obligations divided by the sum of debt and finance lease obligations. Based on regression model (1), Table 6 reports the results on the associations between recognized versus disclosed finance leases and audit fees for the subsample analysis. Columns (1) and (3) report the results for firms with a low reliance on finance leases, and columns (2) and (4) report the results for firms with a high reliance on finance leases, respectively.

<Insert Table 6>

Columns (1) and (2) of Table 6 present the results for a sample of all firms in this study. The coefficients of FLO_on are positive and statistically significant, but the coefficients of FLO_off are not consistent with expected sign and are not statistically significant. For firms with a low reliance on finance leases, the F test reports that the coefficient of FLO_on is not statistically different from the coefficient of FLO_off. However, in column (1), the LR test reveals that the coefficient of FLO_on is significantly different from the coefficient of FLO_off at the 1% level. In addition, in column (2), the F test and the LR test show that the coefficients of FLO_on are statistically different from the coefficients of FLO_off.

Columns (3) and (4) present the results for firms that choose the exception. In column (4), the coefficient of FLO_on is consistent with expected sign and statistically significant; in column (3), however, the coefficient of FLO_on is positive but is not statistically significant. In addition, the coefficients of FLO_off are not statistically significant. For firms with a low reliance on finance leases, the F test and the LR test report that the coefficients of FLO_on are statistically similar to the coefficients of FLO_off. However, for firms with a high reliance on finance leases, the F test and the LR test indicate that the

²¹ We also examine the relations between recognized versus disclosed and audit costs by dividing our sample between firms with a low and a high reliance on finance leases. Unreported results do not change our main results, regardless of the reliance on finance leases.

coefficients of FLO_{on} are significantly different from the coefficients of FLO_{off}. These results suggest that the reliance on finance leases has significant effects on the relations between recognized versus disclosed finance leases and audit fees.

In summary, our results indicate that, unlike recognized finance leases, disclosed finance leases are not associated with finance leases. Furthermore, our results suggest that the associations between recognized versus disclosed finance leases and audit fees vary with the reliance on finance leases. When firms rely heavily on finance leases, auditors are more likely to treat disclosed and recognized finance leases differently when determining audit fees. These results also suggest that auditors raise audit fees by charging a risk premium to recognized items relative to disclosed items.

6. Concluding Remarks

This study analyzes the effects of recognized versus disclosed finance leases on audit fees and costs. In particular, this study investigates whether the associations between recognized versus disclosed finance leases and audit fees and costs are different and whether these associations differ between audit fees and costs. This study provides the following useful evidence regarding recognized versus disclosed finance leases.

First, we examine whether disclosed finance leases are associated with audit fees and costs. Unlike recognized finance leases, we fail to find that disclosed finance lease obligations are associated with audit fees. Using the number of audit team members as the measure of audit costs (i.e., audit effort), we also fail to find the relations between disclosed finance lease obligations and audit costs.

Second, we analyze whether disclosed finance leases are treated differently from recognized finance leases when audit fees and costs are determined. We find differences in the associations between recognized versus disclosed finance lease obligations and audit fees. However, we find that recognized and disclosed finance lease obligations have similar associations with audit costs.

Overall, we find that audit fees are higher for recognized finance leases than for

disclosed finance leases but that audit costs do not differ between recognized and disclosed finance leases. Our results suggest that auditors raise audit fees by charging a risk premium to recognized items relative to disclosed items without expending additional audit effort. Prior literature indicates that the reliability of accounting information is one of the factors in investors' differential treatments between recognized and disclosed items (Bratten et al., 2013; Callahan et al., 2013; Davis-Friday et al., 2004; Müller et al., 2015; Schipper, 2007). In particular, auditors are more likely to scrutinize recognized amounts in financial statements than disclosed financial information in the notes (e.g., Schipper, 2007). However, our findings are not consistent with the view that investors' differential treatments between recognized and disclosed items are driven by the reliability of accounting information. Rather, our study complements the prior research reporting that investors' information processing has significant effects on their differential treatments between recognition and disclosure (Kusano, 2017; Michels, 2017; Müller et al., 2015; Yu, 2013).

Despite its useful insights into recognition versus disclosure of lease arrangements, this study has several limitations. For instance, following the prior literature (Fukukawa, 2011; Kim and Fukukawa, 2013), our study uses the number of audit team members as the measure of audit costs (i.e., audit effort) to investigate the effects of recognized versus disclosed finance leases on audit costs. Since auditing is a labor intensive service, we consider that this variable is an appropriate proxy for audit costs. However, given that many prior studies use audit hours to measure audit costs, our variable might lead to a measurement error. Considering the very limited public availability of audit cost data, the number of accounting and non-accounting professionals on an audit team is one of the best available measures of audit costs. Nevertheless, despite its limitations, our study makes significant contributions to the accounting literature on recognition versus disclosure and has implications for the global convergence of accounting standards.

References

- Aboody, D. (1996), "Recognition versus Disclosure in the Oil and Gas Industry," *Journal of Accounting Research* 34(Supplement): 21–32.
- Accounting Standards Board of Japan: ASBJ (2007a), ASBJ Statement No. 13, *Accounting Standard for Lease Transactions*, ASBJ.
- Accounting Standards Board of Japan: ASBJ (2007b), ASBJ Guidance No. 16, *Guidance on Accounting Standard for Lease Transactions*, ASBJ.
- Ahmed, A. S., E. Kilic and G. J. Lobo (2006), "Does Recognition versus Disclosure Matter? Evidence from Value-Relevance of Banks' Recognized and Disclosed Derivative Financial Instruments," *The Accounting Review* 81(3): 567–588.
- Altamuro, J., R. Johnston, S. Pandit and H. Zhang (2014), "Operating Leases and Credit Assessments," *Contemporary Accounting Research* 31(2): 551–580.
- Arata, E. (2012), "Economic Consequences of Changes in Accounting Standard: Capitalization of Finance Leases and the Cost of Debt," T. Obinata ed., *Origin of Research in Accounting Standards*, Chuokeizai-Sha: 269–284 (in Japanese).
- Bae, G. S., S. U. Choi and J. H. Rho (2016), "Audit Hours and Unit Audit Price of Industry Specialist Auditors: Evidence from Korea," *Contemporary Accounting Research* 33(1): 314–340.
- Barone, E., J. Birt and S. Moya (2014), "Lease Accounting: A Review of Recent Literature," *Accounting in Europe* 11(1): 35–54.
- Beattie, V., A. Goodacre and S. Thomson (2000), "Recognition versus Disclosure: An Investigation of the Impact on Equity Risk Using UK Operating Lease Disclosures," *Journal of Business Finance & Accounting* 27(9–10): 1185–1224.
- Bedard, J. C. and K. M. Johnstone (2004), "Earnings Manipulation Risk, Corporate Governance Risk, and Auditors' Planning and Pricing Decisions," *The Accounting Review* 79(2) 277–304.
- Bell, T. B., W. R. Landsman and D. A. Shackelford (2001), "Auditors' Perceived Business Risk and Audit Fees: Analysis and Evidence," *Journal of Accounting Research* 39(1): 35–43.
- Bowman, R. G. (1980), "The Debt Equivalence of Leases: An Empirical Investigation," *The Accounting Review* 55(2): 237–253.
- Bratten, B., P. Choudhary and K. Schipper (2013), "Evidence that Market Participants Assess Recognized and Disclosed Items Similarly when Reliability is Not an Issue," *The Accounting Review* 88(4): 1179–1210.
- Brumfield, C. A., R. K. Elliott and P. D. Jacobson (1983), "Business Risk and the Audit Process," *Journal of Accountancy* 155(4): 60–68.
- Business Accounting Council: BAC (1993), *Statement of Opinions on Accounting Standards for Lease Transactions*, BAC.
- Callahan, C. M., R. E. Smith and A. W. Spencer (2013), "The Valuation and Reliability Implications of FIN 46 for Synthetic Lease Liabilities," *Journal of Accounting and Public Policy* 32(4): 271–291.

- Caskey, J. and N. B. Ozel (2015), "Reporting and Non-Reporting Incentives in Leasing: Evidence from the Airline Industry," Working Paper.
- Davis-Friday, P. Y., L. B. Folami, C. S. Liu and H. F. Mittelstaedt (1999), "The Value Relevance of Financial Statement Recognition vs. Disclosure: Evidence from SFAS No. 106," *The Accounting Review* 74(4): 403–423.
- Davis-Friday, P. Y., C. S. Liu and H. F. Mittelstaedt (2004), "Recognition and Disclosure Reliability: Evidence from SFAS No. 106," *Contemporary Accounting Research* 21(2): 399–429.
- Dechow, P. M., W. Ge, C. R. Larson and R. G. Sloan (2011), "Predicting Material Accounting Misstatements," *Contemporary Accounting Research*, 28(1): 17–82.
- Dechow, P. M. and D. J. Skinner (2000), "Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators," *Accounting Horizons* 14(2): 235–250.
- DeFond, M. and J. Zhang (2014), "A Review of Archival Auditing Research," *Journal of Accounting and Economics* 58(2–3): 275–326.
- Dhaliwal, D. S., H. S. Lee and M. Neamtiu (2011), "The Impact of Operating Leases on Firm Financial and Operating Risk," *Journal of Accounting, Auditing & Finance* 26(2): 151–197.
- Ely, K. M. (1995), "Operating Lease Accounting and the Market's Assessment of Equity Risk," *Journal of Accounting Research* 33(2): 397–415.
- Financial Accounting Standards Board: FASB (1976), Statement of Financial Accounting Standards (SFAS) No. 13, *Accounting for Leases*, FASB.
- Financial Accounting Standards Board: FASB (2016), Accounting Standards Codification (ASC) Topic 842, *Leases*, FASB.
- Fukukawa, H. (2011), "Audit Pricing and Cost Strategies of Japanese Big 3 Firms," *International Journal of Auditing* 15(2): 109–126.
- Goncharov, I., E. J. Riedl and T. Sellhorn (2014), "Fair Value and Audit Fees," *Review of Accounting Studies* 19(1): 210–241.
- Greiner, A., M. J. Kohlbeck and T. J. Smith (2017), "The Relationship between Aggressive Real Earnings Management and Current and Future Audit Fees," *Auditing: A Journal of Practice & Theory* 36(1): 85–107.
- Hackenbrack, K. E., N. T. Jenkins and M. Pevzner (2014), "Relevant but Delayed Information in Negotiated Audit Fees," *Auditing: A Journal of Practice & Theory* 33(4): 95–117.
- Hay, D. C., W. R. Knechel and N. Wong (2006), "Audit Fees: A Meta-analysis of the Effect of Supply and Demand Attributes," *Contemporary Accounting Research* 23(1): 141–191.
- Heninger, W. G. (2001), "The Association between Auditor Litigation and Abnormal Accruals," *The Accounting Review* 76(1): 111–126.
- Hossain, S., K. Yazawa and G. S. Monroe (2017), "The Relationship between Audit Team Composition, Audit Fees, and Quality," *Auditing: A Journal of Practice & Theory* 36(3): 115–135.
- Houston, R. W., M. F. Peters and J. H. Pratt (1999), "The Audit Risk Model, Business Risk

- and Audit-Planning Decisions,” *The Accounting Review* 74(3): 281–298.
- Houston, R. W., M. F. Peters and J. H. Pratt (2005), “Nonlitigation Risk and Pricing Audit Services,” *Auditing: A Journal of Practice & Theory* 24(1): 37–53.
- Imhoff Jr., E. A., R. C. Lipe and D. W. Wright (1993), “The Effects of Recognition versus Disclosure on Shareholder Risk and Executive Compensation,” *Journal of Accounting, Auditing & Finance* 8(4): 335–368.
- International Accounting Standards Board: IASB (2009), Discussion Paper, *Leases – Preliminary Views*, IASB.
- International Accounting Standards Board: IASB (2010), Exposure Draft, *Leases*, IASB.
- International Accounting Standards Board: IASB (2013), Exposure Draft, *Leases*, IASB.
- International Accounting Standards Board: IASB (2016), International Financial Reporting Standards (IFRS) No. 16, *Leases*, IASB.
- International Accounting Standards Committee: IASC (1982), International Accounting Standards (IAS) No. 17, *Leases*, IASC.
- Israeli, D. (2015), “Recognition versus Disclosure: Evidence from Fair Value of Investment Property,” *Review of Accounting Studies* 20(4): 1457–1503.
- Japan Leasing Association: JLA (2003), *Disclosure of Lease Information and Impacts of Abolishment of “Off-Balance Sheet Treatment”: Special Study on Revision of Lease Accounting Standard*, JLA.
- Japanese Institute of Certified Public Accountants: JICPA (1994), *Practical Guidelines on Accounting Standards for, and Disclosure of, Lease Transactions*, JICPA.
- Johnstone, K. M. (2000), “Client-Acceptance Decisions: Simultaneous Effects of Client Business Risk, Audit Risk, Auditor Business Risk, and Risk Adaptation,” *Auditing: A Journal of Practice & Theory* 19(1): 1–25.
- Johnstone, K. M. and J. C. Bedard (2001), “Engagement Planning, Bid Pricing, and Client Response in the Market for Initial Attest Engagements,” *The Accounting Review* 76(2): 199–220.
- Johnstone, K. M. and J. C. Bedard (2003), “Risk Management in Client Acceptance Decisions,” *The Accounting Review* 78(4) 1003–1025.
- Kim, H. and H. Fukukawa (2013), “Japan’s Big 3 Firms’ Response to Clients’ Business Risk: Greater Audit Effort or Higher Audit Fees?” *International Journal of Auditing* 17(2): 190–212.
- Kim, Y. and M. S. Park (2014), “Real Activities Manipulation and Auditors’ Client-Retention Decisions,” *The Accounting Review* 89(1): 367–401.
- Kraft, P. (2015), “Rating Agency Adjustments to GAAP Financial Statements and Their Effect on Ratings and Credit Spreads,” *The Accounting Review* 90(2): 641–674.
- Krishnan, G. V. and P. Sengupta (2011), “How do Auditors Perceive Recognized vs. Disclosed Lease and Pension Obligations? Evidence from Fees and Going-Concern Opinions,” *International Journal of Auditing* 15(2): 127–149.
- Krishnan, G. V., L. Sun, Q. Wang and R. Yang (2013), “Client Risk Management: A Pecking Order Analysis of Auditor Response to Upward Earnings Management Risk,” *Auditing: A Journal of Practice & Theory* 32(2): 147–169.

- Krishnan, J. and J. Krishnan (1997), "Litigation Risk and Auditor Resignations," *The Accounting Review* 72(4): 539–560
- Kusano, M. (2017), "Does Recognition versus Disclosure Affect Risk Relevance? Evidence from Finance Leases in Japan," Working Paper.
- Kusano, M. (2018), "Effect of Capitalizing Operating Leases on Credit Ratings: Evidence from Japan," *Journal of International Accounting, Auditing and Taxation* 30: 45–56.
- Kusano, M., Y. Sakuma and N. Tsunogaya (2015), "Economic Impacts of Capitalization of Operating Leases: Evidence from Japan," *Corporate Ownership and Control* 12(4): 838–850.
- Kusano, M., Y. Sakuma and N. Tsunogaya (2016), "Economic Consequences of Changes in the Lease Accounting Standard: Evidence from Japan," *Journal of Contemporary Accounting & Economics* 12(1): 73–88.
- Lyon, J. D. and M. W. Maher (2005), "The Importance of Business Risk in Setting Audit Fees: Evidence from Cases of Client Misconduct," *Journal of Accounting Research* 43(1): 133–151.
- Machida, Y. and K. Yazawa (2012), "Investigation Results on Current Status of Audit Fees," Study Group on Auditor and Audit Fee Issues ed., *Current Status and Issues of Audit Fees in Japan*, JICPA: 59–97 (in Japanese).
- Michels, J. (2017), "Disclosure versus Recognition: Inferences from Subsequent Events," *Journal of Accounting Research* 55(1): 3–34.
- Müller, M. A., E. J. Riedl and T. Sellhorn (2015), "Recognition versus Disclosure of Fair Values," *The Accounting Review* 90(6): 2411–2447.
- O'Keefe, T. B., D. A. Simunic and M. T. Stein (1994), "The Production of Audit Services: Evidence from a Major Public Accounting Firm," *Journal of Accounting Research* 32(2): 241–261.
- O'Malley, S. F. (1993), "Legal Liability is Having a Chilling Effect on the Auditor's Role," *Accounting Horizons* 7(2): 82–87.
- Palmrose, Z. V. and S. Scholz (2004), "The Circumstances and Legal Consequences of Non-GAAP Reporting: Evidence from Restatements," *Contemporary Accounting Research* 21(1): 139–180.
- Pratt, J. and J. D. Stice (1994), "The Effects of Client Characteristics on Auditor Litigation Risk Judgments, Required Audit Evidence, and Recommended Audit Fees," *The Accounting Review* 69(4): 639–656.
- Sakuma, Y. (2008), "Auditor's Reputation and Client Stock Price Reactions: The Case of Kanebo Co. and Chuo Aoyama Audit Firm," *Kaikei (Accounting)* 174(6): 42–54 (in Japanese).
- Schipper, K. (2007), "Required Disclosures in Financial Reports," *The Accounting Review* 82(2): 301–326.
- Sengupta, P. and Z. Wang (2011), "Pricing of Off-Balance Sheet Debt: How do Bond Market Participants Use the Footnote Disclosures on Operating Leases and Postretirement Benefit Plans?" *Accounting and Finance* 51(3): 787–808.
- Shu, S. S. (2000), "Auditor Resignations: Clientele Effects and Legal Liability," *Journal of*

- Accounting and Economics* 29(2): 173–205.
- Simunic, D. A. (1980), “The Pricing of Audit Services: Theory and Evidence,” *Journal of Accounting Research* 18(1): 161–190.
- Simunic, D. A. and M. T. Stein (1996), “Impact of Litigation Risk on Audit Pricing: A Review of the Economics and the Evidence,” *Auditing: A Journal of Practice & Theory* 15(Supplement): 119–134.
- Skinner, D. J., and S. Srinivasan (2012), “Audit Quality and Auditor Reputation: Evidence from Japan,” *The Accounting Review* 87(5): 1737–1765.
- Song, M., N. Oshiro and A. Shuto (2016), “Predicting Accounting Fraud: Evidence from Japan,” *The Japanese Accounting Review* 6: 17–63.
- Spencer, A. W. and T. Z. Webb (2015), “Leases: A Review of Contemporary Academic Literature Relating to Lessees,” *Accounting Horizons* 29(4): 997–1023.
- Stanley, J. D. (2011), “Is the Audit Fee Disclosure a Leading Indicator of Clients’ Business Risk?” *Auditing: A Journal of Practice & Theory* 30(3): 157–179.
- Stice, J. D. (1991), “Using Financial and Market Information to Identify Pre-Engagement Factors Associated with Lawsuits against Auditors,” *The Accounting Review* 66(3): 516–533.
- Yu, K. (2013), “Does Recognition versus Disclosure Affect Value Relevance? Evidence from Pension Accounting,” *The Accounting Review* 88(3): 1095–1127.

Table 1: Descriptive Statistics

	N	Mean	SD	Min	p25	Median	p75	Max
Fee	7,149	3.7604	0.6071	2.5649	3.3322	3.6636	4.0604	6.0088
Cost	7,149	2.5331	0.4922	1.0986	2.1972	2.5649	2.8332	3.9318
FLO_on	7,149	0.0219	0.0425	0.0000	0.0009	0.0055	0.0224	0.4291
FLO_off	7,149	0.0113	0.0321	0.0000	0.0000	0.0012	0.0076	0.4347
Debt	7,149	0.7051	0.9024	0.0000	0.0955	0.3974	0.9613	7.4307
ROA	7,149	0.0399	0.0417	-0.1935	0.0168	0.0368	0.0630	0.2013
Loss	7,149	0.3013	0.4589	0.0000	0.0000	0.0000	1.0000	1.0000
Liquidity	7,149	0.1627	0.1008	0.0118	0.0882	0.1435	0.2157	0.5543
GC	7,149	0.0056	0.0746	0.0000	0.0000	0.0000	0.0000	1.0000
Size	7,149	10.8832	1.3553	7.6634	9.9051	10.7497	11.7704	14.8800
Complexity	7,149	0.3427	0.1466	0.0170	0.2473	0.3436	0.4382	0.7306
Sub	7,149	2.3413	0.9808	0.6931	1.6094	2.1972	2.9444	5.1818
FO	7,149	0.0823	0.0929	0.0000	0.0077	0.0462	0.1280	0.4440
Big3	7,149	0.7435	0.4368	0.0000	0.0000	1.0000	1.0000	1.0000

Notes: Table 1 presents the descriptive statistics for the variables used in this study. All continuous variables are trimmed by year at the top and bottom 1%. Fee is the natural log of audit fees. Cost is the natural log of the number of accounting and non-accounting professionals on an audit team. FLO_on is recognized finance lease obligations divided by the book value of equity at the end of fiscal year t . FLO_off is disclosed finance lease obligations divided by the book value of equity at the end of fiscal year t . Debt is debt (excluding recognized finance lease obligations) divided by the book value of equity at the end of fiscal year t . ROA is ordinary income divided by the sum of total assets and disclosed finance lease assets at the end of fiscal year t . Loss is an indicator variable that takes the value of 1 if a firm reports net loss during fiscal year $t-1$ or fiscal year t , and 0 otherwise. Liquidity is the sum of cash and trading securities divided by the sum of total assets and disclosed finance lease assets at the end of fiscal year t . GC is an indicator variable that takes the value of 1 if a firm receives a going concern opinion in fiscal year t , and 0 otherwise. Size is the natural log of the sum of total assets and disclosed finance lease assets at the end of fiscal year t . Complexity is the sum of receivables and inventories divided by the sum of total assets and disclosed finance lease assets at the end of fiscal year t . Sub is the natural log of one plus the number of subsidiaries. FO is foreign ownership at the end of fiscal year t . Big3 is an indicator variable that takes the value of 1 if an auditor is a Big 3 audit firm, and 0 otherwise.

Table 2: Correlation Matrix

	Fee	Cost	FLO_on	FLO_off	Debt	ROA	Loss	Liquidity	GC	Size	Complexity	Sub	FO	Big3
Fee	1.0000	0.5519 (0.0000)	0.0745 (0.0000)	0.0258 (0.0293)	0.1271 (0.0000)	0.0509 (0.0000)	-0.0427 (0.0003)	-0.1566 (0.0000)	-0.0427 (0.0003)	0.7969 (0.0000)	-0.0216 (0.0675)	0.7085 (0.0000)	0.5971 (0.0000)	0.2756 (0.0000)
Cost	0.5881 (0.0000)	1.0000	0.0593 (0.0000)	-0.0009 (0.9366)	0.0532 (0.0000)	0.0727 (0.0000)	-0.0439 (0.0002)	-0.1171 (0.0000)	-0.0535 (0.0000)	0.4728 (0.0000)	-0.0463 (0.0001)	0.4281 (0.0000)	0.3713 (0.0000)	0.4012 (0.0000)
FLO_on	0.0133 (0.2613)	0.0152 (0.1983)	1.0000	0.0533 (0.0000)	0.3153 (0.0000)	-0.0597 (0.0000)	0.0177 (0.1344)	-0.1698 (0.0000)	-0.0083 (0.4815)	0.0084 (0.4753)	-0.0488 (0.0000)	0.1014 (0.0000)	-0.0900 (0.0000)	-0.0070 (0.5516)
FLO_off	-0.0204 (0.0844)	-0.0093 (0.4336)	0.1887 (0.0000)	1.0000	0.2281 (0.0000)	-0.1228 (0.0000)	0.1059 (0.0000)	-0.1462 (0.0000)	0.0441 (0.0002)	-0.0398 (0.0008)	-0.0727 (0.0000)	0.0004 (0.9762)	-0.1466 (0.0000)	-0.0116 (0.3277)
Debt	0.1338 (0.0000)	0.0499 (0.0000)	0.2802 (0.0000)	0.2737 (0.0000)	1.0000	-0.3489 (0.0000)	0.2129 (0.0000)	-0.4457 (0.0000)	0.0625 (0.0000)	0.0858 (0.0000)	0.0103 (0.3817)	0.1646 (0.0000)	-0.1905 (0.0000)	-0.0507 (0.0000)
ROA	0.0292 (0.0134)	0.0604 (0.0000)	-0.0581 (0.0000)	-0.1134 (0.0000)	-0.2990 (0.0000)	1.0000	-0.5771 (0.0000)	0.2081 (0.0000)	-0.1140 (0.0000)	0.0826 (0.0000)	-0.0832 (0.0000)	0.0557 (0.0000)	0.2521 (0.0000)	0.0745 (0.0000)
Loss	-0.0227 (0.0545)	-0.0414 (0.0005)	0.0529 (0.0000)	0.1073 (0.0000)	0.2122 (0.0000)	-0.5496 (0.0000)	1.0000	-0.0421 (0.0004)	0.1101 (0.0000)	-0.1245 (0.0000)	0.0379 (0.0014)	-0.0493 (0.0000)	-0.1192 (0.0000)	-0.0666 (0.0000)
Liquidity	-0.1498 (0.0000)	-0.1184 (0.0000)	-0.1469 (0.0000)	-0.1146 (0.0000)	-0.3180 (0.0000)	0.1933 (0.0000)	-0.0431 (0.0003)	1.0000	-0.0196 (0.0972)	-0.2362 (0.0000)	-0.1213 (0.0000)	-0.1448 (0.0000)	0.0427 (0.0003)	-0.0582 (0.0000)
GC	-0.0354 (0.0027)	-0.0522 (0.0000)	-0.0075 (0.5274)	0.0977 (0.0000)	0.1036 (0.0000)	-0.1606 (0.0000)	0.1101 (0.0000)	-0.0150 (0.2045)	1.0000	-0.0893 (0.0000)	0.0061 (0.6082)	-0.0562 (0.0000)	-0.0669 (0.0000)	-0.0590 (0.0000)
Size	0.8085 (0.0000)	0.4944 (0.0000)	-0.0497 (0.0000)	-0.0663 (0.0000)	0.0851 (0.0000)	0.0749 (0.0000)	-0.1152 (0.0000)	-0.2489 (0.0000)	-0.0943 (0.0000)	1.0000	-0.0421 (0.0004)	0.7326 (0.0000)	0.7045 (0.0000)	0.1464 (0.0000)
Complexity	-0.0461 (0.0000)	-0.1212 (0.0001)	-0.1133 (0.0000)	-0.0648 (0.0000)	-0.0811 (0.0000)	0.0374 (0.0000)	-0.1505 (0.0016)	0.0014 (0.0000)	-0.0659 (0.9086)	1.0000	-0.0424 (0.0000)	-0.0662 (0.0003)	-0.0215 (0.0000)	(0.0690)
Sub	0.7411 (0.0000)	0.4536 (0.0000)	0.0044 (0.7123)	-0.0340 (0.0040)	0.1362 (0.0000)	0.0370 (0.0018)	-0.0405 (0.0006)	-0.1596 (0.0000)	-0.0517 (0.0000)	0.7556 (0.0000)	-0.0481 (0.0000)	1.0000	0.5555 (0.0000)	0.1106 (0.0000)
FO	0.5369 (0.0000)	0.3463 (0.0000)	-0.0930 (0.0000)	-0.1139 (0.0000)	-0.1589 (0.0000)	0.2435 (0.0000)	-0.1027 (0.0000)	0.0679 (0.0000)	-0.0527 (0.0000)	0.6214 (0.0000)	-0.0809 (0.0000)	0.5130 (0.0000)	1.0000	0.1227 (0.0000)
Big3	0.2559 (0.0000)	0.4249 (0.0000)	0.0101 (0.3941)	-0.0150 (0.2034)	-0.0526 (0.0000)	0.0705 (0.0000)	-0.0666 (0.0000)	-0.0378 (0.0014)	-0.0590 (0.0000)	0.1487 (0.0000)	-0.0214 (0.0700)	0.1109 (0.0000)	0.1120 (0.0000)	1.0000

Notes: Table 2 presents the correlation matrix for the variables used in this study. Pearson (Spearman) correlations are below (above) the diagonal. All the variables are defined in Table 1. *p*-values for correlation coefficients are reported in parentheses.

Table 3: Results for Hypothesis 1

	Expected Sign	(1)	(2)	(3)	(4)
		Audit Fees		Audit Costs	
		All	Exception	All	Exception
		Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant		0.0965 (0.9197)	0.0727 (0.6103)	0.9028*** (7.7685)	0.9451*** (7.3063)
FLO_on	+	0.3336** (2.1629)	0.4403** (2.3143)	0.1184 (0.6882)	0.1265 (0.6405)
FLO_off	+	-0.0910 (-0.4777)	-0.0840 (-0.4328)	0.0597 (0.2705)	-0.0570 (-0.2516)
Debt	+	0.0498*** (4.9609)	0.0447*** (3.9643)	0.0183* (1.8140)	0.0261** (2.3456)
ROA	-	-0.3213** (-2.0326)	-0.4015** (-2.1937)	0.1569 (0.8308)	0.0784 (0.3617)
Loss	+	0.0385*** (2.9734)	0.0202 (1.3714)	0.0213 (1.4180)	0.0123 (0.7001)
Liquidity	-	0.2549*** (3.1496)	0.2547*** (2.7703)	-0.0596 (-0.6236)	-0.0668 (-0.6066)
GC	+	0.2695*** (4.1782)	0.2544*** (3.3982)	0.0244 (0.3330)	-0.0022 (-0.0272)
Size	+	0.2785*** (27.1381)	0.2814*** (23.8381)	0.1058*** (9.3010)	0.1010*** (8.0140)
Complexity	+	0.1210* (1.9502)	0.1086 (1.5420)	-0.0429 (-0.5867)	-0.0545 (-0.6615)
Sub	+	0.1697*** (12.4907)	0.1723*** (11.6769)	0.0899*** (6.5120)	0.0975*** (6.3239)
FO	+	0.2186** (2.0011)	0.2588** (2.1436)	0.2257* (1.8726)	0.2745** (2.0366)
Big3	+	0.1941*** (11.0757)	0.1979*** (10.2217)	0.4039*** (17.9453)	0.3915*** (15.4050)
Industry Fixed Effects		Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes
N		7,149	5,097	7,149	5,097
Adj. R ²		0.754	0.751	0.399	0.392

Notes: Table 3 reports the associations between recognized versus disclosed finance leases and audit fees and costs. Columns (1) and (2) present the results for audit fees, and columns (3) and (4) present the results for audit costs. Columns (1) and (3) report the results for a sample of all firms in this study, and columns (2) and (4) report the results for firms choosing the exception, respectively. All the variables are defined in Table 1. *t* statistics are based on robust standard errors clustered at the firm level and are reported in parentheses. ***, **, * indicate that the coefficient estimate is significant at the 0.01, 0.05, and 0.1 levels using a two-tailed *t* test, respectively.

Table 4: Results for Hypothesis 2

	(1)	(2)	(3)	(4)
	Audit Fees		Audit Costs	
	All	Exception	All	Exception
F test	3.4728	3.9555	0.0422	0.3420
	[0.0626]	[0.0469]	[0.8373]	[0.5588]
LR test	6.7787	7.8260	0.0805	0.5958
	[0.0092]	[0.0052]	[0.7766]	[0.4402]

Notes: Table 4 reports the equality between the coefficients of recognized finance lease obligations and disclosed finance lease obligations when determining audit fees and costs. Columns (1) and (2) present the results for audit fees, and columns (3) and (4) present the results for audit costs. Columns (1) and (3) report the results for a sample of all firms in this study, and columns (2) and (4) report the results for firms choosing the exception, respectively. The F test and the LR test report F statistics and chi-square values, respectively. p values are reported in square brackets.

Table 5: The Associations between Recognized versus Disclosed Finance Leases and the Next Year's Audit Fees and Costs

	Expected Sign	(1)	(2)	(3)	(4)
		Audit Fees		Audit Costs	
		All	Exception	All	Exception
		Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant		-0.0118 (-0.1134)	-0.0417 (-0.3525)	0.7523*** (6.4749)	0.8524*** (6.5462)
FLO_on	+	0.3331** (2.2440)	0.4301** (2.2933)	0.1862 (1.0483)	0.2345 (1.0778)
FLO_off	+	-0.0076 (-0.0408)	0.0101 (0.0540)	0.0816 (0.3965)	-0.0329 (-0.1539)
Debt	+	0.0473*** (4.7030)	0.0414*** (3.6695)	0.0116 (1.1615)	0.0178 (1.5996)
ROA	-	-0.1518 (-0.9775)	-0.2024 (-1.1202)	0.1314 (0.6877)	-0.0092 (-0.0422)
Loss	+	0.0378*** (3.0326)	0.0226 (1.5950)	0.0137 (0.8894)	0.0044 (0.2439)
Liquidity	-	0.2387*** (3.0048)	0.2173** (2.4134)	-0.0857 (-0.8889)	-0.1197 (-1.0820)
GC	+	0.2733*** (3.7971)	0.2233*** (2.7879)	-0.0348 (-0.5086)	-0.0619 (-0.7427)
Size	+	0.2878*** (28.4266)	0.2917*** (25.0730)	0.1130*** (9.9468)	0.1046*** (8.1967)
Complexity	+	0.1481** (2.3908)	0.1370* (1.9477)	-0.0358 (-0.4904)	-0.0540 (-0.6611)
Sub	+	0.1646*** (12.0763)	0.1653*** (11.4344)	0.0909*** (6.4977)	0.0989*** (6.3379)
FO	+	0.2268** (2.1307)	0.2580** (2.2275)	0.2285* (1.9188)	0.3055** (2.3021)
Big3	+	0.1872*** (10.8766)	0.1912*** (10.1904)	0.4258*** (19.3162)	0.4081*** (16.4478)
Industry Fixed Effects		Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes
N		7,080	5,050	7,080	5,050
Adj. R ²		0.769	0.767	0.426	0.419
F test		2.3114 [0.1286]	2.5193 [0.1127]	0.1447 [0.7037]	0.6926 [0.4054]
LR test		4.4473 [0.0350]	5.1195 [0.0237]	0.2490 [0.6178]	1.2315 [0.2671]

Notes: Table 5 reports the associations between recognized versus disclosed finance leases and the next year's audit fees and costs. Columns (1) and (2) present the results for audit fees, and columns (3) and (4) present the results for audit costs. Columns (1) and (3) report the results for a sample of all firms in this study, and columns

(2) and (4) report the results for firms choosing the exception, respectively. All the variables are defined in Table 1. t statistics are based on robust standard errors clustered at the firm level and are reported in parentheses. ***, **, * indicate that the coefficient estimate is significant at the 0.01, 0.05, and 0.1 levels using a two-tailed t test, respectively. The F test and the LR test analyze the equality between the coefficients of FLO_on and FLO_off and reports F statistics and chi-square values, respectively. p -values are reported in square brackets.

Table 6: The Associations between Recognized versus Disclosed Finance Leases and Audit Fees Using the Subsample Analysis

	Expected Sign	(1)	(2)	(3)	(4)
		All		Exception	
		Low	High	Low	High
		Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)	Coefficient (t-value)
Constant		0.1032 (0.6941)	0.1256 (0.9080)	0.1697 (1.0047)	0.0334 (0.2114)
FLO_on	+	1.8285* (1.8369)	0.3736** (1.9974)	0.8885 (0.7172)	0.5072** (2.1179)
FLO_off	+	-0.2326 (-0.2384)	-0.0503 (-0.2195)	0.1757 (0.1695)	-0.1229 (-0.5022)
Debt	+	0.0466*** (3.4072)	0.0382** (2.1733)	0.0451*** (2.8141)	0.0416** (2.1148)
ROA	-	-0.2041 (-0.9632)	-0.3681* (-1.7015)	-0.2301 (-0.9063)	-0.4868* (-1.9575)
Loss	+	0.0569*** (3.4127)	0.0197 (1.0503)	0.0387** (1.9664)	0.0007 (0.0355)
Liquidity	-	0.4185*** (3.3683)	0.1722* (1.7288)	0.4242*** (2.9826)	0.1658 (1.4771)
GC	+	0.2474*** (2.9942)	0.3063*** (3.2889)	0.1880* (1.9280)	0.3157*** (2.9303)
Size	+	0.2826*** (19.4429)	0.2726*** (20.2027)	0.2737*** (16.1729)	0.2837*** (18.2753)
Complexity	+	0.0277 (0.3386)	0.2033** (2.3687)	0.0015 (0.0162)	0.2382** (2.4151)
Sub	+	0.1590*** (8.3699)	0.1787*** (10.3139)	0.1758*** (8.4007)	0.1692*** (8.9464)
FO	+	0.3406** (2.1682)	0.0897 (0.6611)	0.3766** (2.1661)	0.1446 (0.9074)
Big3	+	0.2037*** (8.3764)	0.1823*** (8.3553)	0.1967*** (7.3039)	0.1987*** (7.9656)
Industry Fixed Effects		Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes
N		3,431	3,718	2,409	2,688
Adj. R ²		0.768	0.744	0.764	0.739
F test		2.5450 [0.1109]	3.0101 [0.0830]	0.1928 [0.6607]	4.7472 [0.0296]
LR test		6.8333 [0.0089]	6.5901 [0.0103]	0.5587 [0.4548]	10.6512 [0.0011]

Notes: Table 6 reports the associations between recognized versus disclosed finance leases and audit fees using the subsample analysis. Columns (1) and (2) present the results for a sample of all firms in this study, and columns (3) and (4) present the results for firms choosing the exception. Columns (1) and (3) report the results

for firms with a low reliance on finance leases, and columns (2) and (4) report the results for firms with a high reliance on finance leases, respectively. All the variables are defined in Table 1. t statistics are based on robust standard errors clustered at the firm level and are reported in parentheses. ***, **, * indicate that the coefficient estimate is significant at the 0.01, 0.05, and 0.1 levels using a two-tailed t test, respectively. The F test and the LR test analyze the equality between the coefficients of FLO_on and FLO_off and reports F statistics and chi-square values, respectively. p -values are reported in square brackets.