THE EFFECTS OF AUDIT COMMITTEE CHARACTERISTICS ON ITS OVERSIGHT EFFECTIVENESS: EVIDENCE FROM HONG KONG

Kwok Yip Cheung *, Ismail Adelopo **

* *Corresponding author*, Department of Accounting, The Hong Kong University of Science and Technology, Hong Kong, China
Contact details: Department of Accounting (Room LSK6043), The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong, China
** Faculty of Business and Law, University of the West of England, Bristol, the UK

OPEN ACCESS

How to cite this paper: Cheung, K. Y., & Adelopo, I. (2022). The effects of audit committee characteristics on its oversight effectiveness: Evidence from Hong Kong. *Corporate Ownership & Control, 20*(1), 8–18. https://doi.org/10.22495/cocv20i1art1

ISSN Online: 1810-3057
ISSN Print: 1727-9232

Received: 16.08.2022
Accepted: 12.10.2022

JEL Classification: G34, M14, M48
DOI: 10.22495/cocv20i1art1

Abstract

This study examines the relationships between audit committee (AC) characteristics and its oversight effectiveness primarily measured as accrual and real earnings management in Hong Kong after the Asian financial crisis in 2008 for a sample of Hong Kong Hang Seng Index between 2010 and 2015. Using a total of 1719 firm-year observations, we find that audit committee size is negatively associated with discretionary accruals, while the average age of the audit committee members is positively associated with discretionary accruals. The average age of the audit committee members is negatively associated with real earnings management while audit committee tenure and the number of audit committee meetings motivate managers to engage in real earnings management. The findings are useful to regulators in Hong Kong and to those with similar institutional and cultural environments and ownership structure.

Keywords: Accrual Earnings Management, Real Earnings Management, Audit Committees, Hong Kong, Asian Financial Crisis

Authors' individual contribution: Conceptualization — K.Y.C. and I.A.; Methodology — K.Y.C. and I.A.; Formal Analysis — K.Y.C.; Writing — Original Draft — K.Y.C.; Writing — Review & Editing — K.Y.C. and I.A.; Visualization — K.Y.C. and I.A.; Project Administration — K.Y.C. and I.A.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

This study examines the impacts of various audit committee (AC) characteristics on its oversight effectiveness in Hong Kong. Past accounting scandals highlight the importance of an audit committee that fulfils its responsibility and performs its oversight role on earnings management (DeFond & Francis, 2005; Aldamen et al., 2012). Two types of earnings management have been identified in the extant literature: accrual earnings management and real earnings management. Accrual earnings management allows managers to use the generally accepted accounting principles (GAAP) so that opportunistic managers may abuse their discretion to engage in earnings management so as to increase their own wealth at the expense of the shareholders (Christie & Zimmerman, 1994). In contrast, real earnings management manipulates the timing or structuring of an operation, investment, or financing transactions. Real earnings management may cause significant adverse economic consequences to firms (Zang, 2012). Although previous studies have examined the role of audit committees in mitigating earnings management they have focused mainly on the accruals earnings management and there is limited evidence on this issue from alternative contexts such as those presented by Hong Kong. Furthermore, the consideration of the role of

the audit committee in mitigating real earnings management is a recent development and available evidence is scanty and limited to firms from Anglo-Saxon contexts.

This study is conducted in Hong Kong for two major reasons. First, the oversight of the external auditor is not independent because the Practice Review Committee that is responsible for monitoring external auditors and imposing a penalty on them largely includes representatives from the Big Four (Big 4) audit firms. As a result, the audit committee plays a critical role in ensuring audit quality by effectively monitoring the auditors. Second, prior studies examining the role of AC characteristics on earnings management in Hong Kong remain scarce. Lin et al. (2015) do not investigate the role of the audit committee on real earnings management and use data in the stable period 2004–2008. Thus, given the weak regulatory framework for corporate reporting and deteriorating corporate governance in Hong Kong, it is even more important to investigate the oversight effectiveness of the audit committee on monitoring earnings management.

We use fixed panel regression analyses in the study. Our findings show that audit committee size is negatively associated with accrual earnings management, while the average age of the audit committee members is positively associated with it. In regard to real earnings management, we find that the average age of the audit committee is negatively associated with real earnings management while the average tenure of the audit committee and the number of audit committee meetings are positively associated with it.

This study makes a number of contributions to the extant literature on the effectiveness of the audit committee and earnings management. First, our study contributes to the audit committee effectiveness literature by considering the potential substitution effects in their monitoring activities with respect to accrual and real earnings management. We show that managers may prefer to use accrual earnings management the average age of audit committee members is higher. However, they may choose to use real earnings management when the audit committees have long-tenured members and an increased number of meetings. They, therefore, provide insights to regulators as to the appropriateness of regulations on audit committee compositions. Second, we provide new international evidence on the impact of the audit committee on accrual and real earnings management from a unique context. Hong Kong represents a significantly different corporate governance context compared to those in the Anglo-Saxon or continental European countries. Similarly, it is distinct from a typical Asian-Pacific Basin corporate governance context because of its hybrid corporate governance approaches. To the best of our knowledge, this research is the first research to examine the impacts of audit committee oversight quality on both accrual and real earnings management in Hong Kong. Third, the findings provide clarity to policymakers on how to regulate the audit committee characteristics in the context where the oversight of the auditor is not independent. furthermore, certain sectors including consumer goods and property sectors are particularly susceptible to earnings management because of their high capital investment, impairment and use of fair value accounting measures. These sectors play prominent roles in the Hong Kong listed companies.

The rest of the study is presented in four sections. Section 2 reviews past literature. Section 3 presents the research methodology. Section 4 presents the results of the research. Section 5 discusses the results. Section 6 concludes the study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Audit committee size

A large audit committee may have more resources to perform its oversight function (Yasser & Al Mamun, 2016). In a small audit committee, the workload may overwhelm its members serving on it (Vafeas, 2007). Yasser and Al Mamun (2016) examine the relationship between audit committee structure and accrual earnings management in Asia-Pacific. They observe that an audit committee with more members is more likely to constrain earnings management. Lin et al. (2006) investigate the relationships between characteristics of an audit committee based on the Blue Ribbon Committee (BRC) in 1999 and earnings restatement. They find a negative relationship between audit committee size and earnings restatement. Hassan and Ibrahim (2014) investigate the effects of the audit committee and board characteristics on real earnings management for a sample of listed manufacturing firms in Nigeria. They find that audit committee size reduces real earnings management, while Haji-Abdullah and Wan-Hussin (2015) in their study on the relationship between related party transactions, audit committee characteristics and real earnings management note that audit committee size is not associated with real earnings management. Recently, Baatwah et al. (2020) who investigate the impacts of the interactions between audit committee religiosity and other characteristics observe that a large audit committee is ineffective to monitor real earnings management. Given the mixed findings in the extant literature, we state our non-directional hypotheses below:

H1a: The size of an audit committee is associated with accrual earnings management.

H1b: The size of an audit committee is associated with real earnings management.

2.2. Audit committee independence

An independent audit committee implies that it can make its own judgment based on the audit evidence provided by external auditors, and challenge the position of the management in respect of reporting quality if necessary (Carcello et al., 2011). Prior research supports the view that audit committee independence is important for enhancing oversight effectiveness. Leung et al. (2014) find that a positive relationship exists between audit committee independence and firm performance with regard to non-family firms. Bruynseels and Cardinaels (2014) who examine the effects of audit committee members' relationships with the chief executive officer (CEO) on their oversight quality

observe that the social ties obtained through the CEO's friendship network reduce oversight quality. Appiah and Amon (2017) find that independent audit committees are important to monitor the quality of financial reporting, leading to fewer cases of corporate insolvency. Osma (2008) observes that more independent boards constrain the manipulation of research and development expenditure. Hassan and Ibrahim (2014) also observe that audit committee independence reduces real earnings management. Prior studies suggest that independent members on an audit committee may protect shareholders' interests by monitoring accrual and real earnings management. We, therefore, anticipate a positive relationship between audit committee independence and its oversight effectiveness. We state our hypotheses below:

H2a: Audit committee independence is associated with accrual earnings management.

H2b: Audit committee independence is associated with real earnings management.

2.3. Audit committee diligence

An audit committee should be diligent to monitor the financial reporting and audit processes (de Andrés Suárez et al., 2013) to fulfil its responsibilities. Soliman and Ragab (2014) investigate the impacts of audit committee characteristics on earnings management in Egypt. They report a negative relationship between the audit committee and earnings management. Munsif et al. (2013) conclude that firms with more frequent audit committee meetings are more likely to receive internal control weakness early warning. Garven (2015) examines 148 real earnings management and 148 non-real earnings management firms and find that the number of audit committee meetings is negatively associated with real earnings management. Baatour et al. (2017) investigate audit committee and board characteristics on accrual and real earnings management for listed firms in Saudi Arabia. They note that the number of audit committee meetings reduces real earnings management. Recently Hasan et al. (2020), who examine the moderating effects of audit quality on the relationships between audit committee characteristics and real earnings management conclude that the number of audit committee meetings constrains real earnings management. We expect a positive relationship between Audit committee diligence and oversight effectiveness, so we state our hypotheses below:

H3a: Diligence of an audit committee is associated with accrual earnings management.

H3b: Diligence of an audit committee is associated with real earnings management.

2.4. Audit committee directorships

We expect a relationship between audit committee members' oversight effectiveness and their experience. Yet, we expect that audit committee members would have the required time to devote to the oversight function of the firms. Thus, it can be expected that a higher number of audit committee directorships may impact the effectiveness of their monitoring oversight of management although this may expose them to a variety of experiences (Alkdai & Hanefah, 2012; Rickling, 2014). Boo and Sharma (2008) observe that directors with more directorships on an audit committee demand more audit resources in a highly regulated industry. Nevertheless, if they become too busy with many directorships, their oversight quality will be reduced Dhaliwal et al. (2010) and Habbash et al. (2013) evaluate the effects of various audit committee characteristics on earnings management in the UK. They find a positive association between the average number of outside directorships and downward discretionary, indicating that busy audit committee members are associated with poor reporting monitoring. Chafran et al. (2022) examine the impacts of audit committee directorships on financial reporting quality before and during the financial crisis in 2008. They find that an increased number of directorships reduces earnings quality before the financial crisis. The results are more profound during the financial crisis. Baatour et al. (2017) observe that the number of audit committee directorships is positively associated with real earnings management. The results of the prior studies suggest that audit committee directorships are important determinants of their oversight effectiveness. Given the relatively few studies on this issue, we state our non-directional hypotheses below:

H4a: Audit committee directorships are associated with accrual earnings management.

H4b: Audit committee directorships are associated with real earnings management.

2.5. Audit committee tenure

Longer audit committee tenure exposes the members to a better understanding of company operations and they may be equipped with more knowledge and experience in overseeing financial reporting and audit process in a company. Thereby, longer audit committee tenure should help them to enhance their oversight effectiveness (Aldamen et al., 2012; Chan et al., 2013; Wilson, 2017). Wilson (2017) examines whether director tenure has any impact on audit committee effectiveness. He finds that discretionary accruals are negatively related to the proportion of long-tenured audit committee members. Aldamen et al. (2012) investigate the impacts of audit committee characteristics on firm performance during the global financial crisis. They observe that a longer-tenured chair on the audit committee augments a company's performance. However, long-tenured audit committee members may be less independent because they become too familiar with managers (Singhvi et al., 2013). Sharma and Iselin (2012) examine the effects of audit committee members' multiple directorships and tenure on financial misstatements. They note a positive association between audit committee tenure and financial misstatement. Regarding real earnings management, Garven (2015) and Sun et al. (2014) observe that there is no relationship between audit committee tenure and real earnings management. The results of the prior studies suggest that audit committee characteristics may be important determinants of

oversight effectiveness, so we state our non-directional hypotheses below:

H5a: Audit committee members' tenure on the board is associated with accrual earnings management.

H5b: Audit committee members' tenure on the board is associated with real earnings management.

2.6. Audit committee age

Older audit committee members have fewer career mobility options; they may use more efforts in overseeing financial reporting and audit processes (Huang et al., 2012). Dao et al. (2013) report a negative relationship between audit committee members' average age and the cost of capital due to high audit quality. Unlike Dao et al. (2013), Jintawattanagul (2015) reports a positive association between audit committee members' age, cost of capital and accrual quality. Qi and Tian (2012) examine the effects of audit committee members' personal characteristics such as their age, gender diversity and education on firms' earnings management in China. They note a negative association between audit committee members' age and earnings management. The conflicting indications from the literature lead to our non-directional hypothesis below:

H6a: Audit committee members' age is associated with accrual earnings management.

H6b: Audit committee members' age is associated with real earnings management.

3. RESEARCH METHODOLOGY

3.1. Sample and data

The sample covers the firms listed in the Hong Kong Composite Index (Hang Seng Index) between 2010 and 2015 as it covers 95% of the market capitalization of the listed companies in Hong Kong (Hang Seng Indexes Company Ltd, 2018). The board and audit committee data are collected from annual reports. The financial data are collected from Datastream. The firms in financial industries are removed as the accrual and real earnings management models in this study do not apply to them (Peasnell et al., 2000). The firms with incomplete financial or director data are excluded. After the elimination, a total of 343 firms and 1,719 firm-year observations are found and used in the study.

3.2. Model specification

To test the hypotheses in the study, we have formulated the following econometric models in the study. Larcker and Rusticus (2010) use instrumental variable regression in their study as they find that endogeneity is present. However, instrumental variable regression may be likely to be biased and provide wrong inferences when endogeneity is not a major concern (Larcker & Rusticus, 2010; Matolcsy et al., 2012). We find that endogeneity is not a major concern in this study in subsection 4.3, so we use fixed effect panel data regression in the study as follows (the definitions and measures of variables can be found in Table 1):

$$DACC_{i,t} = \beta_0 + \beta_1 LNACS_{i,t} + \beta_2 ACI_{i,t} + \beta_3 LNACM_{i,t} + \beta_4 ACD_{i,t} + \beta_5 ACT_{i,t} + \beta_6 ACA_{i,t} + \beta_7 LNBS_{i,t} + \beta_8 LNBM_{i,t} + \beta_9 BD_{i,t} + \beta_{10} BA_{i,t} + \beta_{11} DUALITY_{i,t} + \beta_{12} MB_{i,t} + \beta_{13} ROA_{i,t} + \beta_{14} LEV_{i,t} + \beta_{15} SIZE_{i,t} + \beta_{16} AIEXP_{i,t} + \beta_{17} FOWN_{i,t} + e_{i,t} \quad (1)$$

$$AGGRM_{i,t} = \beta_0 + \beta_1 LNACS_{i,t} + \beta_2 ACI_{i,t} + \beta_3 LNACM_{i,t} + \beta_4 ACD_{i,t} + \beta_5 ACT_{i,t} + \beta_6 ACA_{i,t} + \beta_7 LNBS_{i,t} + \beta_8 LNBM_{i,t} + \beta_9 BD_{i,t} + \beta_{10} BA_{i,t} + \beta_{11} DUALITY_{i,t} + \beta_{12} MB_{i,t} + \beta_{13} ROA_{i,t} + \beta_{14} LEV_{i,t} + \beta_{15} SIZE_{i,t} + \beta_{16} AIEXP_{i,t} + \beta_{17} FOWN_{i,t} + e_{i,t} \quad (2)$$

Table 1. Definitions of variables

Variables	*Definition*
DACC	Absolute value of discretionary accruals estimated by modified Jones model
AGGRM	Real earnings management measured using three proxies; sales-based manipulations (abnormal cash-flow from operations), discretionary expenses-based (abnormal discretionary expenses), and production cost-based (abnormal production cost). These three proxies of earnings management were based on the model established by Dechow et al. (1998) and applied by Roychowdhury (2006)
LNACS	Natural log of the number of directors on an AC
ACI	Proportion of independent non-executive directors on the AC
LNACM	Natural log of the number of AC meetings per year
ACD	Average AC members' directorships
ACT	Average years of AC members on the board
ACA	Audit committee members' average age
LNBS	Natural log of the number of directors on the board
LNBM	Natural log of the number of board meetings in a year
BD	Board members' average directorships
BA	Board members' average age
DUALITY	Indicator that takes a value of 1 if CEO of a company is the same person as chairman, otherwise 0
MB	Market-to-book ratio
ROA	Return on assets
LEV	Total liabilities divided by total assets
SIZE	Natural log of total assets
AIEXP	1 if the audit firm accounts for the largest clients' revenues in an industry.
FOWN	Shareholdings of family members on the board

Table 2. Descriptive statistics for continuous variables

Variable	*Mean*	*SD*	*Min*	*Max*
DACC	0.104	0.33	0.000	11.86
AGGRM	1.196	18.95	-404.88	325.41
LNBS	2.27	0.26	0.1.38	3.09
BA	54.92	4.95	38.63	71.45
LNBM	1.82	0.511	0	4.26
BD	0.93	0.86	0	6.4
LNACS	1.22	0.196	0.693	1.94
ACI	0.91	0.15	0.25	1
ACA	58.31	6.74	37.67	77.33
ACD	1.68	1.55	0	8
LNACM	1.082	0.41	0	3.09
ACT	6.15	3.92	0.04	24.03
ROA	0.058	0.42	-2.8	0.95
SIZE	16.95	1.57	10.53	21.56
FOWN	0.061	0.143	0	0.73
LEV	0.48	0.22	0.006	2.20
MB	3.47	72.09	-458.93	2933.91

Table 3. Descriptive statistics for dichotomous variables

Variable	*Indicator*	*Frequency*	*Percent*	*Cumulative*
DUALITY	0	1,235	72.05	72.05
	1	479	27.95	100.00
AIEXP	0	1215	70.89	70.89
	1	499	29.11	100.00

Table 4. Variance inflation factor (VIF)

Variable	*VIF*	*Variable*	*VIF*
BD	3.46	*LNACM*	1.32
ACD	3.20	*LNACS*	1.25
BA	2.80	*LNBM*	1.20
ACA	2.60	*ACI*	1.17
ROA	1.65	*DUALITY*	1.08
LEV	1.64	*FOWN*	1.07
SIZE	1.47	*AIEXP*	1.06
ACT	1.39	*MB*	1.02
LNBS	1.33		

4. RESEARCH RESULTS

4.1. Descriptive statistics and correlations among variables

We present the descriptive statistics of the oversight effectiveness and independent variables used in the sample in Tables 2 and 3. The mean of *DACC* is 0.104. The mean of *AGGRM* is 1.196. The mean of *ACI* is 0.91, indicating that 91 percent of members on the audit committee are independent non-executive directors. The mean of the number of audit committee members is 3.39 (log value = 1.22). This implies that on average there are three directors on the audit committee. The audit committee members meet on average three times a year. The mean of *ACT* is 6.15. Audit committee members serve on the board for 6.15 years. The mean of *ACD* is 1.68. The audit committee has 1.68 directorships. Multicollinearity is present if the pairwise correlation coefficients between two regressors are in excess of 0.90. As shown in the matrix in Table 5, the coefficients for each explanatory variable in the regression models are below this threshold, so there are no serious correlation problems among our regressors. Table 4 also reports the results of variance inflation factor (VIF) tests for the models that we run to additionally check form multicollinearity problems. The VIF of our variables is lower than 4.00, suggesting the lack of any multicollinearity (VIF > 10) (Mertens et al., 2017).

4.2. Regression results

The regression results can be found in Table 6. The results show that *LNACS* negatively relates to *DACC* ($p < 0.05$). The coefficient of *LNACS* is -0.101. *H1a* is supported. In regard to real earnings management, *LNACS* negatively and insignificantly relates to *AGGRM* with a coefficient of -4.344. A large audit committee is ineffective in deterring real earnings management. *H1b* is not supported. The association between *ACI* and *DACC* is insignificant and negative, so *H2a* is not supported. Regarding real earnings management, *ACI* is negatively and insignificantly associated with *AGGRM*, so *H2b* is not supported. The coefficient of *ACI* is -8.491. The relationships between *LNACM* and *DACC* are insignificant and negative. *H3a* is not supported. For real earnings management, *LNACM* positively and significantly relates to *AGGRM* ($p < 0.01$). The coefficient of *LNACM* is 6.642, so *H3b* is supported. There is no significant relationship between audit committee directorships, accrual, and real earnings management. The coefficient of *ACD* on *DACC* is 0.004. The coefficient of *ACD* on *AGGRM* is 1.008. *H4a* and *H4b* are not supported. The relationship between *ACT* and *DACC* is insignificant and negative. The coefficient is -0.002, so *H5a* is not supported. However, we observe that *ACT* is positively and significantly associated with *AGGRM* at $p < 0.05$. The coefficient is 0.719. Thus, *H5b* is supported. The relationship between *ACA* and *DACC* is positive and significant. *ACA* positively relates to *DACC* ($p < 0.05$). *H6a* is supported. *ACA* is significantly and positively associated with *AGGRM* at $p < 0.05$. The coefficient is -0.544, implying that increased audit committee members' average age will reduce real earnings management. *H7b* is supported.

Table 5. Correlation matrix

	DACC	*AGGRM*	*ACA*	*ACD*	*ACT*	*LNACM*	*LNACS*	*ACI*	*BA*	*BD*	*DUALITY*	*LMBS*	*LNBM*	*ROA*	*SIZE*	*LEV*	*MB*	*FOWN*	*AIEXP*
DACC	1																		
AGGRM	-0.0240	1																	
ACA	-0.0521*	0.00181	1																
ACD	-0.0481*	0.0320	0.306***	1															
ACT	-0.071**	0.00620	0.429***	0.231***	1														
LNACM	-0.064**	0.0246	-0.00626	-0.108***	-0.084***	1													
LNACS	-0.0500*	0.0150	0.0318	-0.0456	0.000496	0.146***	1												
ACI	-0.0354	0.0169	0.113***	0.148***	0.0416	-0.157***	-0.21***	1											
BA	-0.079**	-0.0405	0.740***	0.205***	0.444***	0.106***	0.0763**	-0.085***	1										
BD	-0.0584*	0.0287	0.347***	0.804***	0.321***	-0.0668**	0.0664**	0.0895***	0.361***	1									
DUALITY	0.0192	0.0221	0.0232	0.0146	0.0754**	-0.0673**	-0.073**	0.0846***	-0.0476*	-0.0441	1								
LNBS	-0.0292	-0.0232	0.141***	0.0197	0.119***	0.134***	0.349***	-0.0687**	0.164***	0.0387	-0.127***	1							
LNBM	0.0285	-0.0124	-0.163***	-0.157***	-0.147***	0.287***	0.0752**	-0.0699**	-0.13***	-0.16***	-0.149***	0.0112	1						
ROA	0.452***	-0.0104	0.00113	-0.0302	0.00981	0.00912	0.00323	-0.0316	0.0223	-0.0382	-0.00802	0.0595*	-0.0542*	1					
SIZE	-0.10***	0.00475	0.261***	0.0809***	0.143***	0.358***	0.216***	-0.110***	0.308***	0.128***	-0.0681**	0.380***	0.121***	0.0434	1				
LEV	0.854***	-0.00605	-0.0137	-0.0184	-0.0363	-0.0251	-0.0158	-0.0393	-0.0145	-0.0181	-0.0143	0.0102	0.0241	0.617***	0.0115	1			
MB	0.000634	-0.00245	-0.0260	-0.0166	-0.0386	0.00244	-0.0117	-0.0433	-0.0226	-0.0125	-0.00716	-0.0126	0.00234	-0.00310	-0.10***	-0.0024	1		
FOWN	-0.00145	0.0286	0.0244	0.0490*	0.0980***	-0.156***	-0.0553*	0.0177	-0.00482	0.0139	0.130***	0.0160	-0.15***	0.0325	-0.0476*	-0.0133	-0.0235	1	
AIEXP	-0.0452	0.0219	0.0864***	0.105***	0.0857***	0.100***	-0.0227	-0.0491*	0.0446	0.0527*	-0.0316	0.0458	-0.0325	0.00735	0.126***	-0.0178	-0.0156	-0.06**	1

*Note: *, ** and *** represent p-value less than 10 percent, 5 percent, and 1 percent, respectively. Definitions of variables are summarized in Table 1.*

Table 6. Results of regressions

Variable	*DACC*	*AGGRM*
ACA	0.004**	-0.544**
	(0.00)	(0.24)
ACD	0.004	1.008
	(0.01)	(1.25)
ACT	-0.002	0.719**
	(0.00)	(0.34)
LNACM	-0.020	6.642***
	(0.02)	(2.56)
LNACS	-0.101**	-4.344
	(0.04)	(5.09)
ACI	-0.057	-8.491
	(0.06)	(7.41)
BA	-0.012***	0.192
	(0.00)	(0.38)
BD	-0.065***	-1.256
	(0.02)	(2.54)
DUALITY	0.009	1.829
	(0.02)	(2.36)
LNBS	-0.058	-9.305*
	(0.05)	(5.30)
LNBM	-0.005	-1.476
	(0.02)	(1.83)
ROA	-0.066***	-1.113
	(0.01)	(1.64)
SIZE	-0.028**	-4.769***
	(0.01)	(1.29)
LEV	0.031***	0.049
	(0.00)	(0.07)
MB	-0.000*	-0.009
	(0.00)	(0.01)
FOWN	-0.034	2.909
	(0.09)	(10.96)
AIEXP	0.015	1.996
	(0.02)	(2.87)
Constant	1.380***	126.604***
	(0.26)	(30.26)
N	1719	1719
adj. R-sq	0.6991	0.0001
F	273.47	2.19
Hausman test	15.96	17.644
Hausman test p-value	0.193	0.1269

*Note: *, ** and *** represent p-value less than 10%, 5%, and 1%, respectively. Definitions of the variables are summarized in Table 1. Standard errors are in parentheses.*

4.3. Robust test

Our analyses are robust for endogeneity. The endogeneity problem arises when there is a relationship between an explanatory variable and the error term, resulting in biased estimators (Adkins & Hill, 2008). The endogeneity problem may be caused by an omitted variable, a measurement error and reverse causality (Wooldridge, 2012). Larcker and Rusticus (2010) argue that the instrumental variable regression is helpful in corporate governance research when the independent variables are endogenous. In this study, both accrual and real earnings management and the governance mechanism may be jointly determined by unobservable factors so spurious relation exists. For example, it is conceivable that an unspecified risk factor that lowers audit committee effectiveness also leads firms to reduce accrual or real earnings management. Using lagged variables for all audit committee and board variables, we test for endogeneity in our main model using Hausman test which shows that the hypotheses are not rejected, so our analyses are robust for endogeneity. The results are reported in Table 6.

5. DISCUSSION OF THE RESULTS

The results suggest that a large audit committee is more effective to perform its oversight role because a large audit committee should have sufficient manpower availability for its oversight functions. The results are consistent with prior studies which suggest that a large audit committee has more manpower to monitoring accrual earnings management (Yasser & Manum, 2016). A large audit committee is ineffective in deterring real earnings management. The results are inconsistent with Hassan and Ibrahim (2014) but consistent with Haji-Abdullah and Wan-Hussin (2015). Concerning audit committee independence, the results are inconsistent with prior studies (Osma, 2008; Hassan & Ibrahim, 2014; Bruynseels & Cardinaels, 2014; Appiah & Amon, 2017) that audit committee independence is an important factor that reduces accrual or real earnings management. This indicates that an independent non-executive audit committee is ineffective in deterring real earnings management.

Regarding audit committee diligence, the results are inconsistent with prior studies (Munsif et al., 2013; Soliman & Ragab, 2014) that audit committee diligence is important to improve oversight quality on accrual earnings management. The results are inconsistent with Garven (2015) and Baatour et al. (2017) who note that the number of audit committee meetings reduces real earnings management. Consequently, the results show that an increased number of audit committee meetings motivates managers to engage in real earnings management. The explanation is that the audit committee may spend a significant amount of time discussing internal control systems and external audits that help constrain accrual earnings management. However, this will not reduce real earnings management. As a result, managers switch their earnings management strategies to real earnings management, which is more difficult to detect and may not be discussed in audit committee meetings.

In regard to audit committee directorships, the results are inconsistent with prior studies that suggest audit committee directorships enable the audit committee members to obtain more experience to perform their oversight roles (Boo & Sharma, 2008; Alkdai & Hanefah, 2012; Rickling, 2014), or prior studies that suggest that audit committee members will become too busy if they have too many directorships (Dhaliwal et al., 2010; Habbash et al., 2013; Baatour et al., 2017). Furthermore, the findings do not support the views that long tenure exposes the audit committee members to a better understanding of company operations and they may be equipped with more knowledge and experience in overseeing financial reporting and audit process in a company (Aldamen et al., 2012; Chan et al., 2013; Wilson, 2017). The findings support the views that long-tenured audit committee members may be less independent because they become too familiar with managers (Sharma & Iselin, 2012; Singhvi et al., 2013). Additionally, the results are inconsistent with Garven (2015) and Sun et al. (2014) observe that there is no relationship between audit committee tenure and real earnings management.

Lastly, the findings indicate that increased audit committee age encourages accrual earnings management. The findings are consistent with prior studies that conclude that older audit committee members may have difficulties gaining new knowledge to perform their oversight roles. (Jintawattanagul, 2015). The findings are consistent with Dao et al. (2013) and Qi and Tian (2012) that older audit committee members may have more work experience to perform their oversight role. The results imply that older audit committee members may have difficulties in keeping abreast of changes in the accounting and auditing requirements, but their long-time experience is effective in deterring real earnings management.

6. CONCLUSION

We examine the relationships between six audit committee characteristics and oversight effectiveness primarily measured as accrual and real earnings management. We note that a large audit committee is important in constraining accrual earnings management, but not real earnings management. Audit committee independence and audit committee diligence are not significant to reduce accrual earnings management, but diligence is a motivator that promotes real earnings management. The findings indicate that audit committee members may switch their earnings management strategies from accrual earnings management to real earnings management when the audit committee is diligent. Managers may believe that the audit committee may focus on discussing how to constrain accrual earnings management such as improvement in internal control systems and auditor independence during the audit committee meetings, while their discussion is less relevant to the reduction in real earnings management. Longer tenure may impair their oversight role, particularly in real earnings management. Increased age of the audit committee members attracts accrual earnings management as they may have difficulties keeping abreast with the recent development of accounting or auditing standards while their long-time work experience enables them to monitor the firms' operations so real earnings management can be reduced. The findings suggest that the policymakers may strengthen the requirements for audit committee size. However, when they mandate the requirements of audit committee age and meetings. They should be cautious about the substitute effects between accrual and real earnings management.

Finally, this study has some limitations. This study is only conducted in Hong Kong, so the results may not be generalized to other western countries as the corporate governance quality and oversight structure on the auditor are significantly different. Second, this study is conducted after Asian financial crisis. The results may not be generalized to a stable period. Despite these inherent limitations, the findings of this study provide useful insights to regulators for improving current regulations on corporate governance mechanisms in different audit committee characteristics because this study supports the view that the regulators should mandate certain audit committee characteristics.

REFERENCES

1. Adkins, L. C., & Hill, R. C. (2008). *Using stata for principles of econometrics* (3rd ed.). John Willey.
2. Aldamen, H., Duncan, K., Kelly, S., McNamara, R., & Nagel, S. (2012). Audit committee characteristics and firm performance during the global financial crisis. *Accounting and Finance, 52*(4), 971–1000. https://doi.org/10.1111/j.1467-629X.2011.00447.x
3. Alkdai, H. K. H., & Hanefah, M. M. (2012). Audit committee characteristics and earnings management in Malaysian Shariah-compliant companies. *Business and Management Review, 2*(2), 52–61. https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.471.9605&rep=rep1&type=pdf
4. Appiah, K. O., & Amon, C. (2017). Board audit committee corporate insolvency. *Journal of Applied Accounting Research, 18*(3), 298–316. https://doi.org/10.1108/JAAR-03-2015-0024
5. Baatour, K., Ben Othman, H., & Hussainey, K. (2017). The effect of multiple directorships on real and accrual-based earnings management: Evidence from Saudi Listed firms. *Accounting Research Journal, 30*(4), 395–412. https://doi.org/10.1108/ARJ-06-2015-0081
6. Baatwah, S. R. Al-Qadasi, A. A., & Al-Ebel, A. M. (2020). Religiosity at the top: does it interact with accounting expertise to limit real earnings management. *Managerial Auditing Journal, 35*(9), 1343–1377. https://doi.org/10.1108/MAJ-12-2019-2521
7. Badolato, P. G., Donelson, D. C., & Ege, M. (2014). Audit committee financial expertise and earnings management: The role of status. *Journal of Accounting and Economics, 58*(2–3), 208–230. https://doi.org/10.1016/j.jacceco.2014.08.006
8. Ball, R., & Shivakumar, L. (2006). The role of accruals in asymmetrically timely gain and loss recognition. *Journal of Accounting Research, 44*(2), 207–242. https://doi.org/10.1111/j.1475-679X.2006.00198.x
9. Bartov, E., Gul, F. A., & Tsui, J. S. L. (2001). Discretionary accruals–models and audit qualifications. *Journal of Accounting and Economics, 30*(3), 421–452. https://doi.org/10.1016/S0165-4101(01)00015-5
10. Bepari, M. K., & Mollik, A. T. (2014). Effect of audit quality and accounting and finance backgrounds of audit committee members on firms' compliance with IFRS for goodwill impairment testing. *Journal of Applied Accounting Research, 16*(2), 196–220. https://doi.org/10.1108/JAAR-05-2013-0038
11. Boo, E., & Sharma, D. (2008). Effect of regulatory oversight on the association between internal governance characteristics and audit fees. *Accounting and Finance, 48*(1), 51–71. https://doi.org/10.1111/j.1467-629X.2007.00229.x
12. Bruynseels, L., & Cardinaels, E. (2014). The audit committee: Management watchdog or personal friend of the CEO? *The Accounting Review, 89*(1), 113–145. https://doi.org/10.2308/accr-50601
13. Carcello, J. V., Hermanson, D. R., & Ye, Z. (2011). Corporate governance research in accounting and auditing: Insights, practice implications, and future research directions. *Auditing: A Journal of Practice & Theory, 30*(3), 1–31. https://doi.org/10.2308/ajpt-10112

14. Chafran, C., O'Sullivan, N., & Yasmin, S. (2022). When does audit committee busyness influence earnings management in the UK? Evidence on the role of the financial crisis and company size. *Journal of International Accounting, Auditing and Taxation, 47*, 100467. https://doi.org/10.1016/j.intaccaudtax.2022.100467
15. Chan, A. M. Y., Liu, G., & Sun, J. (2013). Independent audit committee members' board tenure and audit fees. *Accounting & Finance, 53*(4), 1129–1147. https://doi.org/10.1111/j.1467-629X.2012.00490.x
16. Chan, R. S. Y., Lau, C. K. S., & Ng, A. W. (2011). Compliance and value relevance of audit committees: Evidence from Hong Kong. *Journal of Financial Reporting and Accounting, 9*(1), 74–97. https://doi.org/10.1108/19852511111139813
17. Charoenwong, C., & Jiraporn, P. (2009). Earnings management to exceed thresholds: Evidence from Singapore and Thailand. *Journal of Multinational Financial Management, 19*(3), 221–236. https://doi.org/10.1016/j.mulfin.2008.12.001
18. Chau, G., & Leung, P. (2006). The impact of board composition and family ownership on audit committee formation: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation, 15*(1), 1–15. https://doi.org/10.1016/j.intaccaudtax.2006.01.001
19. Chen, W., Hirebar, P., & Melessa, S. (2018). Incorrect inferences when using residuals as dependent variables. *Journal of Accounting Research, 56*(3), 751–796. https://doi.org/10.1111/1475-679X.12195
20. Cheung, Y. L., Connelly, J. T., Jiang, P., & Limpaphayom, P. (2011). Does corporate governance predict future performance? Evidence from Hong Kong. *Financial Management, 40*(1), 159–197. https://doi.org/10.1111/j.1755-053X.2010.01138.x
21. Ching, K. M. L., Firth, M., & Rui, O. M. (2006). Earnings management, corporate governance and market performance of seasoned equity offerings in Hong Kong. *Journal of Contemporary Accounting & Economics, 2*(1), 73–98. https://doi.org/10.1016/S1815-5669(10)70017-5
22. Christie, A., & Zimmerman, J. (1994). Efficient and opportunistic choices of accounting procedures: Corporate control contests. *The Accounting Review, 69*(4), 539–566. https://www.jstor.org/stable/248431
23. Cohen, R., Hoitash, U., & Krishnamoorthy, G. (2014). The effect of audit committee industry expertise on monitoring the financial reporting process. *The Accounting Review, 89*(1), 243–273. https://doi.org/10.2308/accr-50585
24. Dao, M., Huang, H.-W., & Zhu, J. (2013). The effects of audit committee members' age and additional directorships on the cost of equity capital in the USA. *European Accounting Review, 22*(3), 607–643. https://doi.org/10.1080/09638180.2012.739823
25. de Andrés Suárez, J., Cabal García, E., Fernández Méndez, C., & Rodríguez Gutiérrez, C. (2013). The effectiveness of the audit committee in Spain: Implications of its existence on the auditor's opinion, *Journal of the Spanish Economic Association, 4*, 333–352. https://doi.org/10.1007/s13209-012-0094-7
26. Dechow, P. M., Kothari, S. P., & Watts, R. L. (1998). The relation between earnings and cash flows. *Journal of Accounting and Economics, 25*(2), 133–168. https://doi.org/10.1016/S0165-4101(98)00020-2
27. DeFond, M. L., & Francis, J. R. (2005). Audit research after Sarbanes-Oxley. *Auditing: A Journal of Practice & Theory, 24*(1), 5–30. https://doi.org/10.2308/aud.2005.24.s-1.5
28. Dhaliwal, D., Naiker, V., & Navissi, F. (2010). The association between accruals quality and the characteristics of accounting experts and mix of expertise on Audit Committees. *Contemporary Accounting Research, 27*(3), 787–827. https://doi.org/10.1111/j.1911-3846.2010.01027.x
29. Garven, S. A. (2015). The effect of board and audit committee characteristics on real earnings management: Do boards and audit committees play a role in its constraint? *Academy of Accounting and Financial Studies Journal, 19*(1), 67–84. https://www.abacademies.org/articles/aafsjvol1912015.pdf
30. Gillis, P.L. (2013). *Auditing in Hong Kong: Unfit for purpose* (Special Report No. 3). Forensic Asia. https://www.chinaaccountingblog.com/auditing-in-hong-kong-unfit.pdf
31. Habbash, M., Sindzingue, C., & Salama, A. (2013). The effect of audit committee characteristics on earnings management: Evidence from the United Kingdom. *International Journal of Disclosure and Governance, 10*(1), 13–38. https://doi.org/10.1057/jdg.2012.2
32. Haji-Abdullah, N. M., & Wan-Hussin, W. N. (2015). Related party transactions, audit committees and real earnings management: The moderating impact of family ownership. *Advanced Science Letters, 21*(6), 2033–2037. https://doi.org/10.1166/asl.2015.6195
33. Hang Seng Indexes Company Ltd. (2018). *Hang Seng indexes: Hang Seng Composite Index series.* https://www.hsi.com.hk/static/uploads/contents/en/dl_centre/factsheets/hscie.pdf
34. Hasan, S., Kassim, A. A. M., & Hamid, M. A. A. (2020). The impact of audit quality, audit committee and financial reporting quality: Evidence from Malaysia. *International Journal of Economics and Financial Issues, 10*(5), 272–281. https://doi.org/10.32479/ijefi.10136
35. Hassan, S. U., & Ibrahim, G. (2014). Governance attributes and real activities manipulation of listed manufacturing firms in Nigeria. *International Journal of Accounting and Taxation, 2*(1), 37–62. http://ijatnet.com/journals/ijat/Vol_2_No_1_March_2014/4.pdf
36. Hastuti, S., Setiawa, D., & Widagdo, A. K. (2020). Substitution between Accrual and real earnings management: The role of independent commissioners and audit committee. *Jurnal Keuangan dan Perbankan, 24*(2), 225–240. https://doi.org/10.26905/jkdp.v24i2.4060
37. Huang, H. W., Green, E. R., & Lee, C. C. (2012). CEO age and financial reporting quality. *Accounting Horizons, 26*(4), 725–740. https://doi.org/10.2308/acch-50268
38. Jaggi, B., & Leung, S. (2007). Impact of family dominance on monitoring of earnings management by audit committees: Evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation, 16*(1), 27–50. https://doi.org/10.1016/j.intaccaudtax.2007.01.003
39. Jeter, D. C., & Shivakumar, L. (1999). Cross-sectional estimation of abnormal accruals using quarterly and annual data: Effectiveness in detecting event-specific earnings management. *Accounting and Business Research, 29*(4), 299–319. https://doi.org/10.1080/00014788.1999.9729590
40. Jintawattanagul, S. (2015). *The mediating effect on accruals quality on the relationship between audit committee characteristics and the cost of capital: Empirical evidence from Thailand* (Doctoral dissertation, Rajamangala University of Technology Thanyaburi). Rajamangala University of Technology Thanyaburi. http://www.repository.rmutt.ac.th/dspace/bitstream/123456789/2933/1/RMUTT-151733.pdf

41. Kaminsky, G. L., & Schmukler, S. L. (1999). *What triggers market jitters? A chronicle of the Asian Crisis* (International Finance Discussion Paper No. 634). U.S. Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/pubs/ifdp/1999/634/ifdp634.pdf
42. Kang, S.-A., & Kim, T. (2019). A research on the relationship between accrual-based earnings management and real earnings management in the retail industry. *Journal of Distribution Science, 17*(12), 5–12. https://doi.org/10.15722/jds.17.12.201912.5
43. Kodres, L., & Pritsker, M. (1998). *A rational expectations model of financial contagion* (Board of Governors of the Federal Reserve Finance and Economics Discussion Series No. 48). https://ssrn.com/abstract=148769
44. Krishnan, G., & Visvanathan, G. (2011). Reporting internal control deficiencies in the Post-Sarbanes-Oxley era: The role of auditors and corporate governance. *Internal Journal of Auditing, 11*(2), 73–90. https://doi.org/10.1111/j.1099-1123.2007.00358.x
45. Larcker, D. F., & Rusticus, T. O. (2010). On the use of instrumental variables in accounting research. *Journal of Accounting and Economics*, *49*(3), 186–205. https://doi.org/10.1016/j.jacceco.2009.11.004
46. Leung, S., Richardson, G., & Jaggi, B. (2014). Corporate board and board committee independence, firm performance, and family ownership concentration: An analysis based on Hong Kong firms. *Journal of Contemporary Accounting & Economics, 10*(1), 16–31. https://doi.org/10.1016/j.jcae.2013.11.002
47. Lin, J. W., Li, J. F., & Yang, J. S. (2006). The effect of audit committee performance on earnings quality. *Managerial Auditing Journal, 21*(9), 921–933. https://doi.org/10.1108/02686900610705019
48. Lin, T., Hutchinson, M., & Percy, M. (2015). Earnings management and the role of the audit committee: An investigation of the influence of cross-listing and government officials on the audit committee. *Journal of Management & Governance, 19*(1), 197–227. https://doi.org/10.1007/s10997-013-9284-3
49. Liu, G., & Sun, J. (2010). Director tenure and independent audit committee effectiveness. *International Research Journal of Finance and Economics, 51*, 176–189. https://core.ac.uk/download/72765788.pdf
50. Matolcsy, Z., Tyler, J., & Wells, P. (2012). Is continuous disclosure associated with board independence? *Australian Journal of Management, 37*(1), 99–124. https://doi.org/10.1177/0312896211428492
51. Mertens, W., Pugliese, A., & Recker, J. (2017). *Quantitative data analysis: A companion for accounting and information systems research.* https://doi.org/10.1007/978-3-319-42700-3
52. Michael, B., & Goo, S. (2015). Corporate governance and its reform in Hong Kong: A study in comparative corporate governance. *Corporate Governance, 15*(4), 444–475. https://doi.org/10.1108/CG-09-2013-0109
53. Mizik, N., & Jacobson, R. (2008). Earnings inflation through accruals and real activity manipulation: Its prevalence at the time of an SEO and the financial market consequences. *Business Economics.* https://doi.org/10.2139/ssrn.1031006
54. Munsif, V., Raghunandan, K., & Rama, V. (2013). Earning warnings of internal control problems: Additional evidence. *Auditing: A Journal of Practice & Theory, 32*(2), 171–188. https://doi.org/10.2308/ajpt-50380
55. Nagar, N., & Sen, K. (2016). *Earnings manage strategies during financial distress* (Indian Institute of Management Working Paper No. 2016-02-03). Indian Institute of Management. https://faculty.iima.ac.in /assets/snippets/workingpaperpdf/7456417362016-02-03.pdf
56. Osma, B. G. (2008). Board independence and real earnings management: The case of R&D expenditure. *Corporate Governance: An International Review, 16*(2), 116–131. https://doi.org/10.1111/j.1467-8683. 2008.00672.x
57. Peasnell, K. V., Popo, P. F., & Young, S. (2000), Detecting earnings management using cross-sectional abnormal accruals models. *Accounting and Business Research, 30*(4), 313–26. https://doi.org/10.1080/ 00014788.2000.9728949
58. Qi, B., & Tian, G. (2012). The impact of audit committees' personal characteristics on earnings management evidence from China. *The Journal of Applied Business Research, 28*(6), 1331–1343. https://doi.org/10.19030/ jabr.v28i6.7347
59. Rickling, M. (2014). Audit committee characteristics and repeatedly meeting-beating analyst forecasts. *International Journal of Business, 19*(2), 173–191. https://ijb.cyut.edu.tw/var/file/10/1010/img/860/V192-4.pdf
60. Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics, 42*(3), 335–370. https://doi.org/10.1016/j.jacceco.2006.01.002
61. Sharma, V. D., & Iselin, E. R. (2012). The association between audit committee multiple-directorships, tenure, and financial misstatements. *Auditing: A Journal of Practice & Theory, 31*(3), 149–175. https://doi.org/ 10.2308/ajpt-10290
62. Singhvi, M., Rama, D. V., & Barua, A. (2013). Market reactions to departures of audit committee directors. *Accounting Horizons, 27*(1), 113–128. https://doi.org/10.2308/acch-50284
63. Soliman, M. M., & Ragab, A. A. (2014). Audit committee effectiveness, audit quality and earnings management: an empirical study of the listed companies in Egypt. *Research Journal of Finance and Accounting, 5*(2), 155–166. https://www.iiste.org/Journals/index.php/RJFA/article/view/10690
64. Sun, J., Lan, G., & Liu, G. (2014). Independent audit committee characteristics and real earnings management. *Managerial Auditing Journal, 29*(2), 153–172. https://doi.org/10.1108/MAJ-05-2013-0865
65. Vafeas, N., & Waegelein, J. F. (2007). The association between audit committees, compensation incentives, and corporate audit fees. *Review of Quantitative Finance and Accounting, 28*, 241–255. https://doi.org/10.1007/ s11156-006-0012-9
66. Vichitsarawong, T., Eng, L. L., & Meek, G. K. (2010). The impact of the Asian financial crisis on conservatism and timeliness of earnings: Evidence from Hong Kong, Malaysia, Singapore and Thailand. *Journal of International Financial Management and Accounting, 21*(1), 32–61. https://doi.org/10.1111/j.1467-646X.2009.01035.x
67. Vladu, A. B. (2015). Managerial preferences between accrual-based versus real earnings management. *Hyperion International Journal of Econophysics & New Economy, 8*(2), 409–417. https://scholar.google.com/ citations?view_op=view_citation&hl=ro&user=6md3CJwAAAAJ&sortby=pubdate&citation_for_view=6md3CJwA AAAJ:roLk4NBRz8UC
68. Wilson, T. E. (2017). Does director tenure affect audit committee effectiveness? *Journal of Finance and Accountancy, 21*, 1–11. https://www.aabri.com/manuscripts/162466.pdf

69. Wooldridge, J. M. (2012). *Introductory econometrics: A modern approach* (5th ed.). South-Western Cengage Learning. https://economics.ut.ac.ir/documents/3030266/14100645/Jeffrey_M._Wooldridge_Introductory_Econometrics_A_Modern_Approach__2012.pdf
70. Xu, G., & Ji, X. (2016). Earnings management by top Chinese listed firms in response to the global financial crisis. *International Journal of Accounting and Information Management, 24*(3), 226–251. https://doi.org/10.1108/IJAIM-06-2015-0034
71. Yasser, Q. R., & Mamun, A. A (2016). The relationship between board leadership structure and earnings management in Asia-Pacific. *Accounting Research Journal, 29*(4), 413–428. https://doi.org/10.1108/ARJ-06-2015-0080
72. Yasser, Q. Y., Al Mamun, A. A., & Ahmed, I. (2016). Quality of financial reporting in the Asia-Pacific region: The influence of ownership composition. *Review of International Business and Strategy, 26*(4), 543–560. https://doi.org/10.1108/RIBS-02-2016-0011
73. Zang, A. Y. (2012). Evidence on the trade-off between real activities manipulation and accrual-based earnings management. *The Accounting Review, 87*(2), 675–703. https://doi.org/10.2308/accr-10196