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Joint board management meetings and earnings management

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Abstract

Purpose – Joint board management meetings bring boards of directors and top management teams together to share information and discuss company matters. The authors investigate whether these joint meetings are associated with higher agency costs or information sharing benefits in the context of firm earnings management.

Design/methodology/approach – Using publicly disclosed data on the frequency of joint board management meetings in Indonesian firms, the authors examine the relationship between joint board management meetings and earnings management during 2010–2017.

Findings – The authors find that more joint board management meetings are associated with lower earnings management. This is consistent with joint board management meetings providing net information sharing benefits. Additional testing indicates that the results are the strongest when firms hold more joint board management meetings than regular board meetings.

Originality/value – The findings suggest that in addition to holding regular board and audit committee meetings, formal meetings between boards of directors and top management teams are beneficial to shareholders by restricting opportunistic accounting choices by firm management.

Keywords Board of directors, Corporate governance, Earnings management, Management, Meetings **Paper type** Research paper

1. Introduction

Around the world, policymakers have required firms to increase the independence of their boards of directors and to form audit committees that are independent from firm management. For example, the Sarbanes–Oxley Act in the USA and Australia's Corporate Governance Principles and Recommendations require boards of directors to be majority independent and audit committees to be comprised solely of independent or non-executive directors. Similar guidance also exists in Belgium, Canada, Finland, France, Italy, Luxembourg, New Zealand, Pakistan, Russia, Singapore, South Africa, Switzerland and the United Kingdom [1]. This ensures that boards of directors can perform their monitoring and advising functions without undue influence or pressure from firm management.

In support of this agenda, a large literature based on agency theory shows that higher board independence and fewer connections between board members and management are associated with better shareholder outcomes. Higher board independence has been linked to less financial statement fraud, increased disclosure and transparency, and higher firm performance (Dechow *et al.*, 1996; Abbott *et al.*, 2004; Cheng and Courtenay, 2006; Weir *et al.*, 2002). In addition, firm accounting quality has been found to be higher when audit committees are comprised of independent directors and directors without social ties to the



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CEO (Klein, 2002b; Mohd Saleh et al., 2007; Bronson et al., 2009; Bruynseels and Cardinaels, 2014).

Boards of directors and audit committees, however, also rely on information provided by firm management to perform their monitoring duties (Adams and Ferreira, 2007; Chen *et al.*, 2015). By reducing the presence of executives on the board and removing the formal involvement of management on audit committees, vital channels of communication between firm management and directors have been lost. As a result, information sharing between management and the board now takes place through a mix of different channels, such as conversations with management outside of meetings or inviting executives to attend particular board and committee meetings (Lawler and Finegold, 2006; Johnston and Nowland, 2017; Hoitash and Mkrtchyan, 2019).

While we expect that substantial information sharing between boards of directors and top management exists in different formal and informal settings, it is difficult to find publicly disclosed data about these interactions. In this study we utilize data disclosed by Indonesian firms to investigate a formal channel for closer board management interaction, joint board of director and top management team meetings. While an increasing number of markets require firms to disclose data about their number of board of director meetings and/or top management meetings, Indonesia is the only market where firms also disclose data on the number of joint board management meetings. Of course, we expect similar interactions between boards and management to be occurring in other markets around the world, but data from other markets is, so far, not forthcoming. This is why Indonesia provides a unique setting to start investigating these types of interactions between boards of directors and top management.

Using publicly disclosed data from Indonesian firms we separately identify regular board of director meetings and joint board management meetings. As an example, the 2017 annual report of Garuda Indonesia shows the company held 9 regular board meetings and 40 joint board management meetings during the year [2]. These joint board management meetings are formal meetings where directors and top executives (e.g. CEO, CFO, heads of business units and heads of business functions) meet to share information and discuss relevant topics, such as company performance, planning and budgeting, compensation and hiring, capital raisings, corporate governance policies, and business unit performance evaluation and reporting [3].

In a prior study, Agustia *et al.* (2022) show that these types of joint board management meetings are beneficial to shareholders as they are associated with higher firm performance. However, we do not know if this higher firm performance is due to benefits from better strategic decision-making or a reduction in agency costs. In this paper, we concentrate on the monitoring aspect of joint board management meetings. We utilize accrual-based earnings management as our measure to investigate whether joint board management meetings are associated with higher or lower earnings management.

In investigating this relationship between joint board management meetings and earnings management, we consider two competing hypotheses. First, based on agency theory, the *management power hypothesis* proposes that joint-board management meetings are another avenue for the top management team to exert their power and influence over the board of directors, resulting in decision-making that favors management and may not be in the best interests of shareholders. This is expected to be associated with increased agency costs and higher earnings management. Second, the *information sharing hypothesis* proposes that joint board management meetings enhance the flow of information between top executives and the board of directors. This enhanced information, on topics such as the firm's business operations and accounting practices, allows the board to learn more about and ask more intensive questions about the firm's operations. This results in more effective monitoring of managers and lower earnings management.

Joint board management meetings Examining the frequency of joint board management meetings in Indonesian firms during 2010–2017, we find that more joint board management meetings are associated with lower earnings management. This includes reductions in both income-increasing and income-decreasing accruals. These results are consistent with the *information sharing hypothesis*, which proposes that joint board management meetings are beneficial to shareholders as they enhance information flow between firm management and the board of directors. This enhanced information flow allows the board of directors to conduct more effective monitoring of the activities of management, resulting in lower earnings management.

Further testing to address endogeneity issues, by using a two-stage instrumental variable approach and change analysis, confirms the negative relationship between joint board management meetings and earnings management, but with a lower level of significance. When we examine the particular number of joint board management meetings, we find that our results are the strongest when firms hold more joint board management meetings than regular board meetings. In summary, our findings suggest that in addition to holding regular board and audit committee meetings, formal meetings between boards of directors and top management teams are beneficial to shareholders by restricting opportunistic accounting choices.

2. Literature review and hypotheses

Prior research has examined the frequency of board of director meetings, committee meetings and top management team meetings. These studies propose that a higher number of board and committee meetings require corporate directors to expend more time and effort in their directorial duties, which should increase the effectiveness of the monitoring and advising functions of the board. In support of this argument, Vafeas (1999) and Brick and Chidambaran (2010) both show that a higher number of board meetings are associated with better firm performance. Hoque *et al.* (2013) show that more audit and remuneration committee meetings are associated with lower earnings management. In addition, Rovelli (2020) explains that CEO time is a scarce resource and that the type of management meetings held and the time spent in these meetings is dependent on the characteristics of the top management team.

In Indonesia, recent studies have also investigated the effectiveness of board of director and top management team meetings. Al-Musali and Ismail (2015) investigate the relationships between board meeting effectiveness, board diversity and intellectual capital performance. Harymawan *et al.* (2020) find that more top management team meetings reflect effective effort by management to enhance company performance. Sutarti *et al.* (2021) examine the interactions between top management team meetings, age diversity and firm performance.

These prior studies, however, examine the meetings of the board of directors and firm management separately. That is, they use board and committee meetings to measure the activity of the board of directors, and top management team meetings to measure the activities of management. The only other study to investigate joint meetings of the board of directors and top management is Agustia *et al.* (2022). They show that these types of joint board management meetings are associated with higher firm performance. However, we do not know if this higher firm performance is because joint meetings allow for better strategic decision-making or reduced agency costs from more intense monitoring. In this paper, we progress the literature by investigating the monitoring aspect of joint board management meetings through their association with higher or lower earnings management.

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2.1 Agency theory and management power hypothesis

Prior literature on board of director and audit committee independence from management has been heavily based on agency theory. Agency theory argues that firm managers may exercise their own self-interest, to the detriment of shareholders (Jensen and Meckling, 1976). One avenue to reduce agency costs is to strengthen the effectiveness of corporate governance mechanisms, such as the board of directors, in offsetting the influence of management (Fama and Jensen, 1983). Agency theory suggests that independent directors are more likely to make efficient and unbiased corporate decisions and enhance monitoring of firm management (Byrd and Hickman, 1992; Anderson and Reeb, 2004). Prior studies show that more independent boards are associated with less financial statement fraud, increased disclosure and transparency, less consumption of private benefits by management, and higher firm performance (Dechow *et al.*, 1996; Abbott *et al.*, 2004; Cheng and Courtenay, 2006; Weir *et al.*, 2002).

With respect to financial reporting outcomes, boards are advised to delegate the responsibility to monitor firm management to an audit committee. Audit committees that are independent from management are expected to be more effective in overseeing the financial reporting process, particularly in combatting inappropriate earnings management distorting the true financial performance of companies (Levitt, 1998). Prior research on audit committees has shown that accounting quality is positively related to the independence of audit committees, and that accounting quality is higher when the CEO is not involved in the selection of audit committee members (Klein, 2002a; Bedard *et al.*, 2004; Vafeas, 2005; Mohd Saleh *et al.*, 2007; Bronson *et al.*, 2009; Carcello *et al.*, 2011; Bruynseels and Cardinaels, 2014).

In practice, regulators have also pushed for greater independence of boards of directors and audit committees. The Sarbanes–Oxley Act in the USA requires boards of directors to be majority independent and audit committees to be comprised solely of independent directors. Similar guidance also exists in Australia, Belgium, Canada, Finland, France, Italy, Luxembourg, New Zealand, Pakistan, Russia, Singapore, South Africa, Switzerland and the United Kingdom. ASX (2019) specifically states that "having a majority of independent directors makes it harder for any individual or small group of individuals to dominate the board's decision-making and maximizes the likelihood that the decisions of the board will reflect the best interests of the entity as a whole and not be biased towards the interests of management or any other person or group".

In this study we investigate a new channel for closer board management interaction, joint board of director and top management team meetings. These joint meetings allow for greater interaction between boards of directors and top management teams in a formal setting. Agency theory suggests that these meetings could be a mechanism for management to exert their influence over the board. The more frequently that boards and top management teams meet, the more opportunity that arises for management to exert their influence and promote their own personal interests.

We call this line of reasoning the *management power hypothesis*. This assumes that greater interaction between boards of directors and top management teams, in the form of more joint board management meetings, is associated with higher agency costs and more earnings management. Agency costs are higher as joint board management meetings provide management with another channel to exert their power over the board of directors. For example, by controlling the agenda items and therefore the information provided and discussed at meetings. This reduces the effectiveness of the independent oversight of the board of directors in monitoring management team and may not be in the best interests of shareholders. This sub-optimal decision making is then reflected in greater earnings management. Based on this hypothesis, we make the following prediction:

H1. Joint board management meetings are positively related to earnings management.

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ARA 2.2 Information sharing hypothesis

An alternative explanation for joint board management meetings is that they enhance information sharing between firm management and boards of directors. The push for greater board and audit committee independence has reduced the presence of executives at these meetings and has restricted vital channels of communication between firm management and directors. The consequence is that information sharing between management and the board now takes place through a mix of different channels, such as conversations with management outside of meetings or inviting executives to attend particular board and committee meetings (Lawler and Finegold, 2006; Johnston and Nowland, 2017; Hoitash and Mkrtchyan, 2019).

Joint board management meetings are a solution to this issue as they are formal meetings where directors and top executives meet to share information and discuss relevant issues. If management are forthcoming with valid and up-to-date information at joint board management meetings, then this allows the board of directors to more effectively undertake their monitoring and advising roles, resulting in stronger monitoring and more effective strategic decision-making. In this study, we focus on the monitoring aspect of joint meetings, which is expected to produce higher quality accounting outcomes for firms.

Prior studies suggest that greater information exchange between management and the board is expected to increase the intensity of monitoring by the board and its audit committee (Adams and Ferreira, 2007; Chen *et al.*, 2015). We propose that joint board management meetings allow for increased monitoring by the board as they both enhance the board's access to company information and provide the board with greater opportunity to question management activities.

As an example, the 2017 annual report of Garuda Indonesia shows the agenda items at their joint board management meetings include presentations and discussions on planning and budgeting (at the start of the year), ongoing company performance reports (each month during the year) and business unit performance evaluation (at the end of the year). This frequent provision and discussion of information about the activities of the company's business units and about overall company performance means the board is more actively involved in both the budgeting and performance evaluation processes. Thus, joint meetings have increased the board's access to more detailed and up-to-date information means the board is more informed about the operations of the business and therefore better able to understand and monitor the activities of management. For example, if management tries to use opportunistic accounting estimates to meet their budgeted benchmark or qualify for a higher level of compensation, this is more likely to be identified and questioned by the board.

In addition, joint meetings provide a more regular forum for directors and managers to gather together. This provides directors with increased opportunity to question the information provided by management and to ask more specific questions about firm operations and accounting choices. For example, directors could question the choices made by management or request additional information about the consolidation of subsidiaries, classification of leases, recognition of off-balance-sheet items, depreciation choices on capital assets, recurring versus discontinued operations, capitalization of research and development costs, and so on. Joint meetings therefore provide greater opportunity for monitoring of management by providing additional access to firm managers.

Thus, the information sharing explanation proposes that joint board management meetings are beneficial to shareholders as they enhance information flow between firm management and the board of directors. This enhanced information flow allows the board of directors to conduct more effective monitoring of the activities of management, resulting in lower earnings management. Therefore, based on the information sharing hypothesis, we make the following prediction:

H2. Joint board management meetings are negatively related to earnings management.

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3. Data and variables

3.1 Sample

This study uses data from Indonesia as this is the only market that publicly discloses data on formally scheduled joint meetings of boards of directors and top management teams. The initial sample used in this study consists of all public companies listed on the Indonesian Stock Exchange during 2010–2017. Financial data is obtained from the ORBIS database. Data about meetings and other corporate governance variables are hand-collected from company annual reports. We exclude companies from the financial, assurance and real estate industry (SIC 6) because of the different nature of their financial reporting and exclude any observations with missing data. Our final sample includes 1,128 firm-year observations.

Table 1 provides an overview of the sample by industry and year. The sample increases from 97 observations in 2010 to 185 observations in 2017. With respect to industry, the highest number of observations come from Construction Industries (343). Transportation. Communications and Utilities (211), Manufacturing (168) and Mining (150). The smallest number of observations are from Health, Legal and Education Services (26) and Agriculture, Forestry and Fisheries (59).

3.2 Variable definitions

In Indonesia, companies have a board of commissioners and a board of directors. The board of commissioners supervises company management and includes independent members, meaning it functions the same as a board of directors in other markets. The board of directors in Indonesian companies is comprised of company executives and is generally referred to as the top management team in other markets. To ensure consistency with prior studies from around the world, we label boards of commissioners in Indonesia as boards of directors in our study, and boards of directors in Indonesia as top management teams in our study [4].

We measure earnings management using the absolute value of discretionary accruals from the Larcker, Kothari and Modified Jones models (Larcker and Richardson, 2004; Kothari et al., 2005; Dechow et al., 1995). The Modified Jones model estimates total accruals based on the inverse of total assets, change in revenue adjusted for change in receivables, and net property plant and equipment. The Kothari model includes a performance adjustment by adding return on assets as another factor in the accruals model. The Larcker model adds proxies for growth and operating cashflows to the accrual estimation model.

				Ye	ear				
Industry	2010	2011	2012	2013	2014	2015	2016	2017	Total
(SIC 0) Agriculture, forestry and fisheries	4	6	4	9	7	10	10	9	59
(SIC 1) Mining	13	13	19	18	14	19	26	28	150
(SIC 2) Construction industries	30	34	48	40	39	48	53	51	343
(SIC 3) Manufacturing	24	27	26	19	14	21	19	18	168
(SIC 4) Transportation,	9	15	21	25	32	34	35	40	211
Communications and Utilities									
(SIC 5) Wholesale & retail trade	10	7	8	8	9	12	14	15	83
(SIC 7) Service industries	7	8	8	8	11	13	15	18	88
(SIC 8) Health, legal, and educational services & consulting	0	1	2	3	3	4	7	6	26
Total	97	111	136	130	129	161	179	185	1,128
Note(s): This table shows the sample observations of companies listed on the	e distrib e IDX di	ution by uring 20	y indust)10–2017	ry and g	year for	the sar	nple of	1,128 fir	m-year

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Joint board management meetings (JOINTMEETINGS) is the number of joint board of director and top management team meetings the company held during the year. Companies in Indonesia can hold board of director meetings and no joint board management meetings, board of director meetings and joint board management meetings, or only joint board management meetings with no separate board of director meetings. In our analysis we control for the number of separate board of director meetings and audit committee meetings.

Consistent with prior research (Larcker and Richardson, 2004; Kothari *et al.*, 2005; Siagian and Tresnaningsih, 2011), the control variables used in this study control for the effects of board and audit committee governance characteristics, firm size and leverage, growth opportunities and performance. Earnings management is expected to be lower when firms are bigger and have stronger governance characteristics, e.g. bigger boards and audit committee meetings. Earnings management is expected to be higher when firms are performing poorly, when firms have higher leverage and when firms have higher growth opportunities.

The control variables are defined as follows: the number of directors on the board (BOARDSIZE), proportion of independent directors (BOARDINDEP), the number of board meetings (BOARDMEETINGS), the size of the audit committee (ACSIZE), the number of audit committee meetings (ACMEETINGS), the natural logarithm of total assets (FIRMSIZE), total debt divided by total assets (LEVERAGE), and the market-to-book ratio (MTB), net income divided by total assets (ROA) and a dummy variable highlighting loss firms (LOSS). All financial and meeting variables are winsorized at the 1 and 99% levels.

3.3 Methodology

This study uses OLS regression models with fixed year and industry effects. We relate our three measures of earnings management (LARCKER, KOTHARI and MODJONES) to the number of joint board management meetings and control variables. The *management power hypothesis* predicts the coefficient on JOINTMEETINGS to be positive. The *information sharing hypothesis* predicts the coefficient on JOINTMEETINGS to be negative.

Earnings Management _{i,j,t} =	$\beta_0 + \beta_1 JOINTMEETINGS_{i,t} + \beta_2 BOARDSIZE_{i,t}$
	$+ \beta_3 BOARDINDEP_{i,t} + \beta_4 BOARDMEETINGS_{i,t}$
	$+ \beta_5 ACSIZE_{i,t} + \beta_6 ACMEETINGS_{i,t}$
	+ $\beta_7 FIRMSIZE_{i,t} + \beta_8 LEVERAGE_{i,t} + \beta_9 MTB_{i,t}$
	$+\beta_{10}ROA_{i,t}+\beta_{11}LOSS_{i,t}+YEAR_{t}+INDUSTRY_{j}$
	$+ \epsilon_{i,t}$

(1)

4. Empirical analysis

4.1 Descriptive statistics and univariate tests

Table 2 provides descriptive statistics of the variables in this study. The mean (median) company has 3.68 (2.00) joint board management meetings. This ranges from a low of zero to a high of 24 joint meetings [5]. Out of our sample of 1,128 observations, 603 hold joint meetings. This is 53% of the sample. In these firms that hold joint meetings, the average number of meetings is 6.89.

The average company has firm size of IDR 4.33 trillion, leverage of 52%, market-to-book ratio of 1.74, return on assets of 4.51 and 20% incidence of making a loss. The average board size is 4.51, with independence of 38% and 5.70 board meetings [6]. Average size of the audit committee is 2.79 and the average number of audit committee meetings is 5.54. The three measures of earnings management, from the Larcker, Kothari and Modified Jones models have average absolute values of discretionary accruals of 0.07, 0.07 and 0.06.

	Mean	Median	Min	Max	Stdev	Joint board
JOINTMEETINGS	3.68	2.00	0.00	24.00	5.05	meetings
BOARDSIZE	4.51	4.00	1.00	22.00	2.04	meetings
BOARDINDEP	0.38	0.33	0.00	1.00	0.13	
BOARDMEETINGS	5.70	4.00	0.00	30.00	5.40	
ACSIZE	2.79	3.00	0.00	7.00	1.10	
ACMEETINGS	5.54	4.00	0.00	19.00	4.73	547
FIRMSIZE	22.48	20.63	15.11	31.59	4.78	
LEVERAGE	0.52	0.53	0.01	0.93	0.19	
MTB	1.74	0.74	0.01	28.01	3.25	
ROA (%)	4.51	3.45	-30.05	42.01	9.96	
LOSS	0.20	0.00	0.00	1.00	0.40	
LARCKER	0.07	0.05	0.00	0.48	0.06	
KOTHARI	0.07	0.05	0.00	0.45	0.06	
MODJONES	0.06	0.04	0.00	0.38	0.05	

Note(s): The sample includes 1,128 firm-year observations of companies listed on the IDX during 2010–2017. JOINTMEETINGS is the number of joint board of director-top management team meetings the company held during the year. BOARDSIZE is the number of directors on the board, BOARDINDEP is the proportion of independent directors, BOARDMEETINGS is the number of board of director meetings held during the year, ACSIZE is the size of the audit committee, ACMEETNGS is the number of audit committee meetings held during the year, ACSIZE is the natural logarithm of total assets, LEVERAGE is total debt divided by total assets, and MTB is the market-to-book ratio, ROA is net income divided by total assets, LOSS is a dummy variable equal to one for firms that make a loss, LARCKER is the absolute value of discretionary accruals calculated using the Larcker model, KOTHARI is the absolute value of discretionary accruals calculated using the modified Jones model. All financial and meeting variables have been winsorized at the 1 and 99% levels

 Table 2.

 Descriptive statistics

Table 3 shows the correlations between the variables. Joint board management meetings are negatively correlated with the absolute value of discretionary accruals from the Kothari model (p < 0.10) but are not significantly correlated with the level of earnings management from the other two models. There are two potential explanations for these insignificant correlations. First, there are other factors related to earnings management that we need to control for in our analysis to more cleanly measure the relationship between joint meetings and earnings management. We address this in our multivariate analysis. Second, the relationship between joint meetings and earnings management may not be consistent across all levels of joint meetings (something we explore in section 4.5). Joint meetings are also positively correlated with firm size, audit committee size, board meetings and audit committee meetings, and negatively correlated with market-to-book ratios. The three earnings management variables are highly correlated with each other, 0.96 to 0.98. However, correlations between the control variables used in our models are generally low and do not raise any multicollinearity concerns.

Table 4 shows the test results for differences in means between firms that hold joint meetings (JOINTMEETINGS>0) and firms that do not hold joint meetings (JOINTMEETINGS = 0). Firms that hold joint meetings have similar size and independence of their boards, but hold more board meetings. They have bigger audit committees and hold more audit committee meetings. They are also bigger in size and have lower market-to-book ratios. There are no significant differences in leverage and performance. These differences are expected as the choice to hold joint meetings is not random and is likely to be related to firm size and other governance characteristics. These characteristics are controlled for in our subsequent analysis.

Examining the earnings management variables, we can see that firms that hold joint board management meetings have significantly lower levels of discretionary accruals under

ARA 30,4	(13)	1.00 0.08**** 0.08**** 0.08**** 0.08**** 0.08**** 0.08****
	(12)	1.00 0.97**** 0.96**** board of d and MTI absolute v el, MODJC 1 and 99%
548	(11)	1.00 0.03 0.05 0.05 0.05 1 assets 3 is the ari mode
	(10)	1.00 -0.60 -0.06 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.07 -0.06 -0.07 -
	(6)	1.00 0.10 0.05 0.06 0.07 0.07 0.05 0.05 0.05 0.05 0.05 0.05
	(8)	1.00 0.11 **** 0.11 **** 0.20 **** 0.04 0.06 *** 0.06 *** 0.06 *** 0.06 *** 0.05 ** 0.05 **
	(2)	1.00 0.01 -0.34 0.12 -0.05 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.06 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.01 -0.05 -0.00 -0.01 -0.05 -0.00 -0.05 -0.
	(9)	1.00 0.12 **** 0.05 ** 0.05 ** 0.08 *** 0.10 **** 0.10 **** 0.10 **** 0.10 **** 0.10 **** 0.10 **** 0.10 **** 0.10 **** 0.10 **** 0.10 ****
	(2)	1.00 0.22 0.22 0.03 0.04 0.04 0.04 0.04 0.04 0.04 0.04
	(4)	1.00 0.18*** 0.18*** 0.14*** 0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.01 -0.05 * * * * * * * * * * * * * * * * * * *
	(3)	1.00 -0.07*** 0.19*** 0.03*** 0.04 -0.04 -0.04 -0.06*** -0.06*** vations of curring the ye dof director andel, KO7 model, KO7
	(2)	1.00 0.02 0.17**** 0.17**** 0.17**** 0.09**** 0.05*** 0.05** 0.05***
	(1)	1.00 -0.03 -0.01 0.28**** 0.12**** 0.12**** 0.13**** 0.13**** 0.13**** 0.13**** 0.04 0.04 0.04 0.04 0.04 0.04 0.04
Table 3. Pearson correlations		JOINTMEETINGS BOARDMEETINGS BOARDMEETINGS BOARDMEETINGS ACSIZE ACSIZE ACNEETINGS FIRMSIZE LEVERAGE MTB MTB NOA DOPONES MTB NOA LOSS 1 LARCKER MTB MTB MTB MTB NOA LOSS 1 LARCKER MTB MTB MTB MTB MTB MTB MTB MTB MTB MTB
		Sige the second se

	JOINTMEETINGS>0 $n = 603$	JOINTMEETINGS = 0 $n = 525$	Difference	Joint board management
BOARDSIZE	4.48	4.55	-0.07	meetings
BOARDINDEP	0.38	0.37	0.01	
BOARDMEETINGS	6.04	5.31	0.73^{**}	
ACSIZE	2.90	2.67	0.23^{***}	
ACMEETINGS	5.93	5.08	0.85^{***}	549
FIRMSIZE	23.62	21.17	2.45***	
LEVERAGE	0.52	0.52	0.00	
MTB	1.30	2.24	-0.95^{***}	
ROA (%)	4.70	4.28	0.42	
LOSS	0.21	0.18	0.03	
LARCKER	0.06	0.07	-0.01^{**}	
KOTHARI	0.06	0.07	-0.01^{**}	
MODJONES	0.05	0.06	-0.01^{**}	

Note(s): The sample includes 1,128 firm-year observations of companies listed on the IDX during 2010–2017. JOINTMEETINGS is the number of joint board of director-top management team meetings the company held during the year. BOARDSIZE is the number of directors on the board, BOARDINDEP is the proportion of independent directors, BOARDMEETINGS is the number of board of director meetings held during the year, ACSIZE is the size of the audit committee, ACMEETNGS is the number of audit committee meetings held during the year, FIRMSIZE is the natural logarithm of total assets, LEVERAGE is total debt divided by total assets, and MTB is the market-to-book ratio, ROA is net income divided by total assets, LOSS is a dummy variable equal to one for firms that make a loss, LARCKER is the absolute value of discretionary accruals calculated using the Larcker model, KOTHARI is the absolute value of discretionary accruals calculated using the modified Jones model. All financial and meeting variables have been winsorized at the 1 and 99% levels. Significance indicated at * 10, ** 5 and *** 1% levels

Table 4. Mean tests

all three models (p < 0.05). This provides some initial support for the *information sharing hypothesis*, which suggests that more joint board management meetings are beneficial as they enhance information sharing between management and the board, resulting in heightened levels of monitoring and lower levels of earnings management.

4.2 Joint board management meetings and earnings management

Table 5 shows the results of our main analysis relating the number of joint board management meetings to earnings management. Across the three specifications, using the Larcker, Kothari and Modified Jones models to estimate the absolute value of discretionary acruals, we find significant negative relationships (p < 0.01) between the number of joint board management meetings and earnings management. These findings are consistent with the *information sharing hypothesis* and indicate that joint board management meetings are associated with greater information sharing and less earnings management [7].

As a measure of economic significance, our results indicate that if the average firm held one additional joint board management meeting, earnings management would decrease in the range of 1.2-1.6% across our three measures. If a sample firm that did not previously hold any joint meetings started holding an average of 6 joint meetings a year, we would estimate their earnings management to reduce in the range of 7.2-9.8%.

In our analysis, we control for a number of board of director and audit committee characteristics. This allows us to cleanly measure the relationship between the number of joint board management meetings and earnings management. In other words, the results we find are incremental to the number of separate board of director meetings and the number of audit committee meetings that the firm holds.

ARA		LARCKER	KOTHARI	MODIONES				
30,4		(1)	(2)	(3)				
	IOINTMEETINGS	-0.001**** (-2.62)	-0.001**** (-3.48)	-0.001^{***} (-3.10)				
	BOARDSIZE	-0.001 (-0.63)	-0.001 (-0.52)	-0.001(-0.24)				
	BOARDINDEP	-0.033^{**} (-2.06)	$-0.027^{*}(-1.80)$	$-0.025^{*}(-1.88)$				
	BOARDMEETINGS	0.001 (0.83)	0.001 (0.68)	0.001 (0.30)				
550	ACSIZE	-0.001(-0.74)	-0.001 (-0.73)	-0.001(-0.22)				
	ACMEETINGS	-0.001(-0.49)	-0.001(-0.07)	0.001 (0.14)				
	FIRMSIZE	-0.002(-1.59)	-0.002(-1.38)	-0.002(-1.34)				
	LEVERAGE	0.009 (0.89)	0.011 (1.17)	0.009 (1.04)				
	MTB	0.001 (1.14)	0.001 (1.17)	0.001 (0.69)				
	ROA	-0.001(-1.07)	-0.001(-1.06)	-0.001(-1.34)				
	LOSS	-0.005(-0.91)	-0.002(-0.52)	-0.003(-0.84)				
	CONSTANT	0.158*** (3.72)	0.135**** (3.38)	0.118*** (3.34)				
	Year dummies	Included	Included	Included				
	Industry dummies	Included	Included	Included				
	R-squared	0.083	0.103	0.096				
	Ν	1,128	1,128	1,128				
	Note(s) : The sample includes 1.128 firm-vear observations of companies listed on the IDX during 2010–2017.							
	JOINTMEETINGS is the number of joint board of director-top management team meetings the company held							
	during the year. BOARDSL	ZE is the number of directo	ors on the board, BOARDIND	EP is the proportion of				
	independent directors, BOA	RDMEETINGS is the numb	per of board of director meeting	gs held during the year,				
	ACSIZE is the size of the a	udit committee, ACMEETN	NGS is the number of audit co	ommittee meetings held				
	during the year, FIRMSIZE	is the natural logarithm of t	total assets, LEVERAGE is tot	al debt divided by total				
	assets, and MTB is the mar	ket-to-book ratio, ROA is n	et income divided by total as	sets, LOSS is a dummy				
Table 5.	variable equal to one for fir	ms that make a loss, LAR	CKER is the absolute value of	f discretionary accruals				
Joint board-	calculated using the Larcker	model, KOTHARI is the ab	solute value of discretionary a	ccruals calculated using				
management meetings	the Kothari model, MODJON	NES is the absolute value of	f discretionary accruals calculated	ated using the modified				
and earnings	Jones model. All financial an	nd meeting variables have b	peen winsorized at the 1 and 9	9% levels. Significance				
management	indicated at * 10, ** 5 and *	*** 1% levels						

With respect to the control variables used in the model, we find a significant negative relationship between board independence and earnings management. This is consistent with prior literature as more independent boards are expected to be more effective monitors of management, resulting in lower earnings management. We find no other significant relationships between the control variables and earnings management in the models. This is somewhat unexpected as the correlations in Table 3 show that the earnings management variables are also negatively correlated with firm size and return on assets, and positively correlated with leverage and the market-to-book ratio. However, these relationships are not significant in the multivariate models. A number of the unreported industry and year fixed effects are significant, indicating significant variation in earnings management across industries and time periods.

4.3 Income-increasing and income-decreasing earnings management

In Table 6, we separate the absolute value of discretionary accruals into income-increasing and income-decreasing accruals for each of the three earnings management measures. For income-increasing accruals (specifications 1–3), we find significant negative coefficients (p < 0.10) on the number of joint board management meetings in two of the three specifications. For income-decreasing accruals (specifications 4–6), we find significant negative relationships (p < 0.10, p < 0.05, p < 0.01) between the number of joint board management meetings and earnings management across the three measures.

ES	-2.65) 33) 99) 99) 90) 90) 90) 80) 80) 80) 80) 80 80 81 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Joint board
(9) (9)	001 $^{****}(-)$ 01 (-0.8) 25 (-1.5) 01 (-0.94) 02 (-0.94) 02 (-0.1) 02 (-0.1) 01 (-0.27) 01 (-0.27) 01 (-0.27) 01 (-0.27) 01 (-0.27) 01 (-0.27) 01 (-0.27) 01 (-1.5) 01	meetings
W	-0.0 -0.0 0.0 0.0 -0.0 0.0 -0.0 0.0 -0.0 0.0	
reasing 21	2.47) 88) 94) 90) 90) 83) 83) 83) 89) 89) 80) 11 11 11 11 11 11 11 11 11 11 11 11 11	551
ne – dec COTHAI (5)	$\begin{array}{c} 001 & ^{**} & (-0.201) & (-0.201) & (-0.201) & (-0.55) & (-0.55) & (-0.51) & (-0.51) & (-0.51) & (-0.51) & (-0.51) & (-0.52) & (-$	
Incor K	-0.0 -0.0 0.0 0.0 -0.0 -0.0 -0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	
ER	1.88) (81) (81) (81) (81) (91) (91) (91) (91) (91) (91) (170) (170) (18) (170) (18) (170) (18) (170) (18) (170) (18) (170) (18) (170) (18) (18) (18) (18) (18) (18) (18) (18	
LARCKI (4)	(101 [*] (-) (1001 (-) (1002 (-) (1002 (-) (1002 (-) (1001 (-))(100 (-))(1	
	-0 -0 -0 -0 -0 -0 -0 -0 -0 0 -0 0 0 -0 0 0 -0 0 0 -0 0 0 -0 0 0 0 -0 0 0 0 0 0 -0 -	
NES	1.23) 81) 0.83) 0.94) 0.94) 1.14) 0.2) 0.2) 0.2) 0.2) 0.2) 0.2) 0.2) 0.2	
MODJO (3)	0.001 (- 0.001 9 (0. 0.019 (- 0.001 - 0.001 (- 0.000 1. 0.001 0. 0.012*** (1 0.012*** (1 0.012*** (1 0.012*** (1 0.012*** (1 0.15 *** (1) 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
00	ies lister ARDSIZ ngs held tural log tural log tis the al	
ncreasin HARI	(-1.88) -0.08) -0.62) -0.62) -0.22) (-2.29	
come – ii KOTH (2)	-0.001 (-0.001) (-0.001) (-0.001) (-0.001) (-0.001) (-0.001) (-0.003) (-0.003) (-0.003) (-0.003) (-0.001) ((0.001) ((0.001) (0.001)	
Inc))	
CKER 1)	(-1.74) -0.32) -1.35) 0.03) -1.54) -1.54) -1.54) -1.54) -1.54) -1.54) -1.10) *(-2.94)	
LAR	$\begin{array}{c} -0.001 \\ -0.001 \\ (0.001 \\ 0.001 \\ 0.001 \\ 0.001 \\ 0.001 \\ 0.054^{*} \\ 0.054^{*} \\ 0.054^{*} \\ 0.051 \\ 0.0001 \\ 0.00001 \\ 0.00001 \\ 0.00001 \\ 0.00001 \\ 0.00000 \\ $	
	S le includ ammeti metings h o, ROA i discretu ed at * 1	
	<i>ETINGS</i> <i>DEP</i> <i>DEP</i> <i>SETING</i> <i>SETINGS</i> <i>E</i> <i>NGS</i> <i>NGS</i> <i>NGS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i> <i>ndS</i>	Table 6
	NTME ARDSU JARDSU JARDAN JARDAN JARDAN SSIZE MEETI RMSIZE VTER4G NS NS NS NS TA NS TA NS TA NS TA NS TA N S S S S S S S S S S S S S S S S S S	Income-increasing and income-decreasing earnings management
1	Sight a start No. 20 No	

These results indicate that joint board management meetings are associated with a reduction in both income-increasing and income-decreasing accruals. This provides further support for the *information sharing hypothesis* and suggests that the information sharing at these joint meetings helps the board of directors to rein in opportunistic accounting choices by firm management in both directions.

4.4 Endogeneity issues and robustness tests

While providing support for the *information sharing hypothesis* our analysis is susceptible to endogeneity issues - selection bias, reverse causality and omitted variable bias. Selection bias arises because the decision to hold joint board management meetings may not be random across our sample firms. Reverse causality suggests that firms with lower earnings management may choose to hold more joint board management meetings. Omitted variable bias is an issue if other variables, that are not controlled for in our analysis, are associated with the relationship that we document.

To address these endogeneity concerns, we conduct robustness tests using two-stage least squares and change analysis. In our two-stage least squares model, we need an instrumental variable that is correlated with the number of each firm's joint board management meetings, but not correlated with each firm's earnings management. We use the industry-average number of joint board management meetings (not including the sample firm). This is a valid instrumental variable as we document (in the first stage model) that each firm's number of joint meetings is positively correlated with their industry-average number of joint meetings. In addition, we do not expect there to be any direct link between the number of joint board management meetings held by other companies in the same industry and the specific earnings management practices of a sample firm.

Table 7 displays the results of our two-stage least squares analysis. The first specification shows the results for the first stage model, relating the number of joint meetings to the instrumental variable and controls. We find that the INSTRUMENT, the industry average number of joint board management meetings, is significantly positively related (p < 0.01) to the number of joint meetings held by our sample firms. The model also shows that the number of joint board management meetings is positively related to the number of board and audit committee meetings, and negatively related to board size and market-to-book ratios.

The results for the second stage models are shown in specifications two to four. The second stage relates the earnings management variables to the predicted number of joint meetings (from the first stage model) and controls. We find significant negative relationships (p < 0.10) between the predicted values of JOINTMEETINGS and earnings management in all three models. However, the significance of these results is weaker than our main analysis.

In Table 8, we further address endogeneity concerns by relating changes in the number of joint board management meetings and changes in control variables to changes in the earnings management variables. Change analysis removes the potential influence of time-invariant omitted firm characteristics on the results. To be included in this analysis, an observation needs data from two consecutive years to calculate changes in all variables, so our sample size drops to 741 firm-year observations [8]. The results of these change models show that changes in the number of joint board management meetings are negatively related to changes in earnings management (p < 0.10) across all three models.

Overall, these robustness checks show that endogeneity issues are a concern in our analysis. However, using these models to address endogeneity issues, we still document a significant negative relationship between the number of joint board management meetings and earnings management. We acknowledge that the significance of the relationship is reduced in the results documented in this section, but there is still significant support for the *information sharing hypothesis*.

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30.4

	First stage: JOINTMEETINGS (1)	LARCKER (2)	Second stage models: KOTHARI (3)	MODJONES (4)	Joint board management meetings
INSTRUMENT JOINTMEETINGS BOARDSIZE BOARDINDEP BOARDMEETINGS ACSIZE ACMEETINGS FIRMSIZE LEVERAGE MTB ROA LOSS CONSTANT	$\begin{array}{c} (1) \\ \hline 1.118^{***} (4.43) \\ -0.134^{**} (-2.24) \\ -0.401 (-0.33) \\ 0.170^{***} (4.02) \\ 0.032 (0.21) \\ 0.248^{***} (5.85) \\ -0.049 (-0.45) \\ 0.563 (0.71) \\ -0.084^{*} (-1.93) \\ 0.030 (1.51) \\ 0.328 (0.69) \\ 0.669 \\ 0.655 (-0.20) \end{array}$	$\begin{array}{c} -0.005^{*} \left(-1.67\right) \\ -0.001 \left(-0.44\right) \\ -0.032^{**} \left(-2.36\right) \\ 0.001 \left(0.37\right) \\ -0.001 \left(-0.72\right) \\ -0.001 \left(-0.84\right) \\ -0.002^{*} \left(-1.68\right) \\ 0.008 \left(0.81\right) \\ 0.001 \left(1.28\right) \\ -0.001 \left(-1.07\right) \\ -0.005 \left(-0.84\right) \\ 0.188^{***} \left(4.28\right) \end{array}$	$\begin{array}{c} -0.005^{*} (-1.73) \\ -0.001 (-0.31) \\ -0.026^{**} (-2.00) \\ 0.001 (0.09) \\ -0.001 (-0.70) \\ -0.001 (-0.70) \\ -0.001 (-0.64) \\ -0.002 (-1.42) \\ 0.010 (1.07) \\ 0.001 (1.39) \\ -0.001 (-1.09) \\ -0.003 (-0.51) \\ 0.155^{***} (2.00) \end{array}$	$\begin{array}{c} (4) \\ \hline \\ -0.004^{*} (-1.65) \\ -0.001 (-0.09) \\ -0.024^{**} (-2.12) \\ -0.001 (-0.20) \\ -0.001 (-0.28) \\ -0.001 (-0.40) \\ -0.002 (-1.34) \\ 0.008 (0.95) \\ 0.001 (0.83) \\ -0.001 (-1.34) \\ -0.004 (-0.78) \\ 0.128^{***} (2.85) \end{array}$	553
Year dummies	Included	Included	Included	Included	
R squared	nciuded 0.187	0.073	Included	0.083	
N	1,128	1,128	1,128	1,128	

Note(s): The sample includes 1,128 firm-year observations of companies listed on the IDX during 2010–2017. INSTRUMENT is the industry average number of joint board-management meetings held during the year. JOINTMEETINGS is the predicted number of joint board-management meetings the company held during the year from the first stage model. BOARDSIZE is the number of directors on the board, BOARDINDEP is the proportion of independent directors, BOARDMEETINGS is the number of board of director meetings held during the year, ACSIZE is the size of the audit committee, ACMEETNGS is the number of audit committee meetings held during the year, FIRMSIZE is the natural logarithm of total assets, LEVERAGE is total debt divided by total assets, and MTB is the market-to-book ratio, ROA is net income divided by total assets, LOSS is a dummy variable equal to one for firms that make a loss, LARCKER is the absolute value of discretionary accruals calculated using the Kothari model, MODJONES is the absolute value of discretionary accruals calculated using the modified Jones model. All financial and meeting variables have been winsorized at the 1 and 99% levels. Significance indicated at * 10, ** 5 and *** 1% levels

Table 7. Robustness tests: 2SLS

4.5 How many joint board management meetings?

In prior sections we document a negative relationship between the number of joint board management meetings and earnings management. This suggests that more joint meetings are always associated with lower levels of earnings management. In this section we examine this issue more closely by investigating if our results are consistent across different ranges of meetings. First, we break up the number of joint meetings into the ranges of 1-3, 4-6, 7-9 and 10+ meetings. In our sample we have 153 observations of firms holding 1-3 joint meetings per year, 258 observations of firms holding 4-6 joint meetings per year, 50 observations of firms holding 7-9 joint meetings per year, and 142 observations of firms holding 10 or more joint meetings per year.

In Table 9 we investigate whether our main results are consistent across these different levels of meetings. In the first three specifications, we find negative coefficients on the terms JOINTMEETINGS1-3 (p < 0.01), JOINTMEETINGS7-9 (p < 0.01) and JOINTMEETINGS10+ (p < 0.05). However, the coefficient on JOINTMEETINGS4-6 is insignificant. These results indicate that the relationship between joint meetings and earnings management is not consistent across all levels of meetings. Holding some meetings (1–3 joint meetings) and a larger number of meetings (7–9, 10+ joint meetings) are associated with lower levels of earnings management. However, holding 4–6 joint meetings has no significant relationship with earnings management.

ARA 30,4		$\Delta LARCKER $ (1)	$\frac{\Delta KOTHARI}{(2)}$	ΔMODJONES (3)
554	AJOINTMEETINGS ABOARDSIZE ABOARDINDEP ABOARDMEETINGS AACSIZE AACMEETINGS AFIRMSIZE ALEVERAGE AMTB AROA ALOSS CONSTANT Year dummies Industry dummies R-squared	$\begin{array}{c} -0.001^{*} (-1.64) \\ 0.001 (0.35) \\ -0.027 (-1.24) \\ -0.001 (-1.00) \\ 0.002 (0.65) \\ 0.001 (0.01) \\ 0.017^{*} (1.64) \\ -0.022 (-0.74) \\ -0.001 (-1.48) \\ -0.001 (-1.48) \\ -0.001 (-1.28) \\ 0.002 (0.51) \\ Included \\ Included \\ 0.047 \\ 711 \end{array}$	$\begin{array}{c} -0.001^{*} (-1.65) \\ 0.001 (0.16) \\ -0.023 (-1.12) \\ -0.001 (-1.17) \\ 0.002 (0.74) \\ 0.001 (0.44) \\ 0.016 (1.60) \\ -0.016 (-0.57) \\ -0.001^{**} (-1.96) \\ -0.001 (-0.90) \\ -0.009 (-1.35) \\ 0.005 (1.33) \\ Included \\ Included \\ 0.060 \\ 741 \end{array}$	$\begin{array}{c} -0.001^* \ (-1.79) \\ 0.001 \ (0.01) \\ -0.021 \ (-1.19) \\ -0.001 \ (-1.21) \\ 0.002 \ (1.01) \\ 0.001 \ (0.35) \\ 0.012 \ (1.38) \\ -0.013 \ (-0.53) \\ -0.001^{**} \ (-1.98) \\ -0.001 \ (-0.97) \\ -0.008 \ (-1.24) \\ 0.004 \ (1.14) \\ Included \\ Included \\ 0.051 \\ 711 \end{array}$
Table 8. Robustness tests: Change models	Note(s): The sample for the listed on the IDX during management team meetings board, BOARDINDEP is the of director meetings held du number of audit committee I LEVERAGE is total debt di divided by total assets, LOS absolute value of discretionan discretionary accruals calcu accruals calculated using the at the 1 and 99% levels. Sig	e change analysis includes c 2010–2017. JOINTMEETIN the company held during the proportion of independent d rring the year, ACSIZE is th neetings held during the yee vided by total assets, and N S is a dummy variable equa ry accruals calculated using lated using the Kothari mode e modified Jones model. All f nificance indicated at * 10, *	Anges in 741 firm-year obsevent GS is the number of joint e year. BOARDSIZE is the nur lirectors, BOARDMEETINGS he size of the audit committee ar, FIRMSIZE is the natural lo MTB is the market-to-book ra l to one for firms that make a the Larcker model, KOTHARI el, MODJONES is the absolute inancial and meeting variable ** 5 and *** 1% levels	rvations for companies board of director-top nber of directors on the is the number of board e, ACMEETNGS is the garithm of total assets, tio, ROA is net income loss, LARCKER is the is the absolute value of e value of discretionary s have been winsorized

Since more meetings allow for greater information sharing between managers and boards of directors, larger numbers of joint board management meetings (7–9, 10+) are naturally expected to be more strongly associated with less earnings management. Consequently, it is not unexpected that the results for smaller numbers of meetings are less significant, as fewer meetings create fewer opportunities for information sharing. We do however find a significant result for 1–3 joint meetings. This result is likely due to the impact of 37 companies in our sample that started holding a small number of joint meetings (1–3) for the first time. As this new corporate governance practice is started in these companies it likely provides an immediate and incremental boost to their information sharing, resulting in increased monitoring and less earnings management. Unfortunately, our analysis suggests that this incremental impact decreases over time unless a company starts to hold larger numbers of joint meetings (7–9, 10+).

To further corroborate our results for larger numbers of meetings, we also examine if our documented relationship is strongest when companies hold more joint meetings than regular board meetings. We use dummy variables to identify 227 sample observations where firms hold more joint meetings than board meetings (JOINTMEETINGS > BOARDMEETINGS), 139 observations where firms hold the same number of joint meetings and board meetings (JOINTMEETINGS = BOARDMEETINGS), and 237 observations where firms hold fewer joint meetings than board meetings (JOINTMEETINGS < BOARDMEETINGS).

Specifications four to six in Table 9 show the results of this analysis. We find significant negative coefficients on JOINTMEETINGS > BOARDMEETINGS (p < 0.01) and

	LARCKER (1)		KOTHARI (2)		MODJONES (3)	Joint board management
JOINTMEETINGS1-3 JOINTMEETINGS4-6 JOINTMEETINGS7-9 JOINTMEETINGS10+ Control variables Year dummies Industry dummies R-squared N	$\begin{array}{c} -0.013^{***} \ (-2.62) \\ -0.005 \ (-1.07) \\ -0.023^{***} \ (-3.26) \\ -0.011^{**} \ (-2.33) \\ \text{Included} \\ \text{Included} \\ \text{Included} \\ \text{Included} \\ \text{Included} \\ 1\text{Included} \\ 1$		$\begin{array}{rcl} 2.62) & -0.015^{***} & (-3.11) \\ 7) & -0.004 & (-1.03) \\ 3.26) & -0.023^{***} & (-3.45) \\ 2.33) & -0.015^{***} & (-3.26) \\ 1 & Included \\ 1 & Included \\ 1 & Included \\ 1 & Included \\ 0.109 \\ 1,128 \end{array}$		$\begin{array}{c} -0.012^{***} (-2.90) \\ -0.004 (-1.00) \\ -0.024^{***} (-3.73) \\ -0.011^{****} (-2.73) \\ \text{Included} \\ \text{Included} \\ \text{Included} \\ 0.104 \\ 1,128 \end{array}$	meetings
		LARCK (4)	ER	KOTHARI (5)	MODJONES (6)	
JOINTMEETINGS > BOARDMEETINGS - (JOINTMEETINGS = BOARDMEETINGS - (JOINTMEETINGS < BOARDMEETINGS - (Control variables Year dummies Industry dummies R-squared N		$\begin{array}{ccc} -0.015^{***} & (-3.48) & -0.016^{***} & (-3.97) \\ -0.009^{*} & (-1.76) & -0.010^{*} & (-1.95) \\ -0.004 & (-0.72) & -0.005 & (-1.11) \\ & & & & & & \\ & & & & & \\ & & & & & $			$\begin{array}{c} -0.015^{****} \left(-4.08\right) \\ -0.008^{*} \left(-1.67\right) \\ -0.003 \left(-0.78\right) \\ \text{Included} \\ \text{Included} \\ \text{Included} \\ 0.102 \\ 1.128 \end{array}$	
N 1,128 1,128 1,128 Note(s): The sample includes 1,128 firm-year observations of companies listed on the IDX during 2010–2017. JOINTMEETINGS1-3 is a dummy variable equal to one if the company holds 1–3 joint board-management meetings during the year. JOINTMEETINGS4-6 is a dummy variable equal to one if the company holds 4–6 joint board-management meetings during the year. JOINTMEETINGS7-9 is a dummy variable equal to one if the company holds 7–9 joint board-management meetings during the year. JOINTMEETINGS10+ is a dummy variable equal to one if the company holds 10+ joint board-management meetings during the year. JOINTMEETINGS > BOARDMEETINGS is a dummy variable equal to one if the company holds more joint board-management meetings than board meetings. JOINTMEETINGS = BOARDMEETINGS is a dummy variable equal to one if the company holds the same number of joint board-management meetings and board meetings. JOINTMEETINGS < BOARDMEETINGS is a dummy variable equal to one if the company holds less joint board-management meetings than board meetings. LARCKER is the absolute value of discretionary accruals calculated using the Larcker model, KOTHARI is the absolute value of discretionary accruals calculated using the Kothari model, MODJONES is the absolute value of discretionary accruals calculated using the Kothari model. All financial and meeting variables have been winsorized at the 1 and 99% levels. Significance indicated at * 10, ** 5 and *** 1% levels						Table 9. How many joint board- management meetings?

JOINTMEETINGS = BOARDMEETINGS (p < 0.10). The coefficient on JOINTMEETINGS < BOARDMEETINGS is insignificant. These results confirm that the negative relationship between joint meetings and earnings management is strongest when companies hold larger numbers of regularly scheduled joint board management meetings, particularly when companies hold more joint board management meetings than regular board meetings.

5. Conclusions

As boards of directors and audit committees become more independent from firm management, formal lines of communication between firm management and directors have been reduced. As a result, information sharing between management and the board now takes place through a mix of different channels. However, while we know this is happening, accessing widespread data on how directors and managers are interacting and sharing information is challenging. In this study, we utilize publicly disclosed data from Indonesia to

investigate the use of joint board management meetings, a formal channel for enhanced communication between the board of directors and management. We investigate whether these joint meetings are associated with higher agency costs or information sharing benefits in the context of firm earnings management.

Examining the frequency of joint board management meetings in Indonesian firms during 2010–2017, we find that more joint board management meetings are associated with lower earnings management. This result is consistent with the *information sharing hypothesis*, which proposes that the enhanced information flow at joint board management meetings allows the board of directors to conduct more effective monitoring of the activities of management. As endogeneity is always a concern in corporate governance research, we conduct additional tests to address endogeneity issues. Our results in these tests are weaker, but still document a significant negative relationship between joint meetings and earnings management.

This study contributes to the literature by examining data on a new type of formal interaction between boards of directors and management – joint board management meetings. Prior studies have examined the composition of boards of directors and top management teams and how these two groups work independently. In this study, we test for the benefits versus costs of firms holding joint board management meetings. We find that this formal channel for regular interaction between boards and management has a negative relationship with earnings management. Thus, for policymakers and practitioners we highlight that greater board and audit committee independence should be weighed up alongside the need for frequent interaction and information exchange between boards of directors and top management. One way this can occur is for firms to hold regular joint board management meetings.

This study is conducted on Indonesian firms due to availability of publicly available data in Indonesia on joint board management meetings. It is likely that similar meetings and other forms of information exchanges between directors and managers are occurring in other markets around the world. We do not believe there are any special institutional features in Indonesia that would negate the generalizability of our results in this study to other markets. To be sure, as more data becomes available in other markets, future research should continue to investigate these formal and informal channels of interaction between directors and managers in different markets around the world. Also, a limitation of our study is that we only relate joint meetings to measures of accrual-based earnings management. Future research could explore relationships between joint meetings and other measures of financial reporting quality.

Notes

- See corporate governance codes available at: http://www.ecgi.org/codes/all_codes.php. Most countries have comply-or-explain codes rather than mandatory requirements.
- In Indonesia, these are called Board of Commissioner meetings and Joint Board of Commissioner-Board of Director meetings. See section 3.2 for more explanation.
- 3. These examples were taken from agenda items of joint meetings on pages 315–317 of Garuda Indonesia's 2017 annual report.
- CEO–Chairperson duality is not possible in Indonesia as directors cannot also serve on the board of commissioners.
- 5. As all financial and meeting variables have been winsorized at the 1 and 99% levels, the 40 joint meetings for Garuda Indonesia in 2017 was winsorized to the 99% level of meetings (24) in our analysis. This is done to reduce the potential influence of any outliers on our results.
- 6. The minimums for joint board-management meetings and board of director meetings are zero. This is because firms can have joint meetings and/or board meetings. For example, a firm may only have board of director meetings and no joint meetings. Another firm may have only joint meetings and no separate board of director meetings.

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- Due to the long right tail of the number of joint meetings, we also repeat our analysis with the natural logarithm of the number of joint meetings. The unreported results are consistent with those reported.
- 8. We lose the observations for 2010 as we do not have data from 2009 to calculate changes from 2009 to 2010. We also lose observations where data is missing for the same company in the prior year. Our sample for this change analysis ranges from 73 observations in 2011 to 145 observations in 2017.

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Joint board

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