A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent

Firdaus Kurniawan[1], Nandya Octanti Pusparini, Hilma Tsani Amanati, Albertus Henri Listianto Nugroho

Department of Accounting, Faculty of Economic and Business, Gadjah Mada University, Jln. Sosio Humaniora No.1, Yogyakarta 55281, Indonesia

Abstract

This study aims to examine the effect of the company's financial condition on the earnings management behavior of companies in the Asian region. This study extends the existing research model by presenting a cross-country analysis of the relationship of financial conditions, which is specifically divided into three zones, namely financial distress, gray zone, and excellent financial condition, with corporate earnings management. The sample in this study consists of companies listed on stock exchanges of countries in Asia, with an observation period from 2009 to 2019. This study provides empirical evidence that supports the relationship between financial condition and company earnings management, which shows that earnings management is used as a tool by the management of companies that are under financial pressure to distort the quality of reported information, thereby creating a bias in the interpretation of company performance. This study proves that the characteristics of the company's financial condition, both in the safe zone, gray zone, and excellent zone, affect the pattern of company earnings management practices. This study measures earnings management using the discretionary accrual method so that it only captures earnings management practices that are part of the company's discretionary accrual management policy. Research can study earnings management further with the real earnings management approach to examine the effect of the company's financial condition on the distortion of earnings information through the company's actual activities.

Keywords: Earnings Management, Financial Distress, Excellent Financial Conditions, Financial Condition

How to cite (APA 7th style)
Kurniawan, F., Pusparini, O, N., Amanati, H, T., Nugroho, A, H, L. (2022). A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent. *Journal of Accounting and Strategic Finance, 5* (1), 134-150

---

[1] Firdaus Kurniawan
E-mail: *firdaus.kurniawan@mail.ugm.ac.id*

INTRODUCTION

This study aims to provide empirical evidence of the relationship between the company's financial condition and earnings management practices in companies listed on the stock exchanges of countries in the Asian continent. Previous studies have found a relationship between earnings management practices and the company's financial distress (Agrawal & Chatterjee, 2015; Charitou et al., 2007; Ghazali et al., 2015; Habib et al., 2013; Rosner, 2003) These studies show mixed results, by providing both positive results (Agrawal & Chatterjee, 2015; Campa & Camacho-Miñano, 2015; Li et al., 2020; Muljono & Suk, 2018) and negative result (Chen et al., 2010; Ghazali et al., 2015). This mixed result may be caused by using the entire range of Altman's Z-Score, above 2.99 until below 1.81, as a proxy for financial distress experienced by the company (Agrawal & Chatterjee, 2015; Campa & Camacho-Miñano, 2015). In his paperwork, Altman (1968) has categorized the range of Altman Z-Score into three financial conditions: safe, gray, and distressed. In addition, Demirkan and Platt (2009) stated that safe, gray, and distressed zone have different characteristics which need to be considered when explaining the financial condition of the company. Thus, this study extends the research model that has been carried out previously (Agrawal & Chatterjee, 2015; Charitou et al., 2007; Ghazali et al., 2015; Habib et al., 2013) by presenting an analysis of the relationship between the company's financial condition and earnings management practices, with dividing the company's financial condition into three specific zones, namely: financial distress, gray zone, and excellent financial zone, to provide a more detailed description of the company's financial condition. Unlike prior studies, this study conducts a cross-country analysis of the relationship between a firm's financial condition and earnings management practices in companies across Asia. This study contributes to the literature related to financial performance and managerial decisions by showing the influence of three companies' financial conditions on earnings management practices in the context of cross-country research.

As a representation of the company's ability to generate profits, the company's financial condition is an important factor influencing decision-making by company stakeholders. Altman (1968) developed the Altman Z Score model, which combines several financial ratios into a single score to represent the tendency of the company's financial condition so that it can be used in future decision-making considerations. Altman (1968) classifies companies based on the company's tendency to bankrupt and categorizes the model measurement results based on the cutoff zone of "excellent financial conditions", "gray" zone, and "financial distress" zone.

Research in the field of earnings management has found that there is a relationship between the company's financial condition and the practice of accruals-based earnings management, but the majority of the literature still shows mixed results (Viana Jr et al., 2022). Habib et al. (2013) and Kim et al. (2022) found that the company's financial condition provides incentives to managers to manipulate earnings. Rosner (2003) shows that companies tend to increase profits to avoid the possibility of bankruptcy and maintain the company's debt covenants. Meanwhile, Saleh and Ahmed (2005) Rudiawarni, and Budianto (2022) found that companies with high pressures on financial performance expectations tend to reduce their

A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent
Firdaus Kurniawan, Nandya Octanti Pusparini, Hilma Tsani Amanati, Albertus Henri Listianto Nugroho

accrued earnings. Charitou et al. (2007) used a sample of 859 US firms from 1986-2004 and found that managers manipulate earnings when under pressure from financial risk. There is a strong incentive for managers to manipulate earnings to maintain listing qualifications (Du & Lai, 2018), provide an excellent signal to stakeholders, and maintain positive sentiment in the capital market (Burgstahler & Eames, 2006), when the company is under financial pressure the bad one.

Financial distress is a complex financial condition and has bad consequences for company stakeholders (Agrawal & Chatterjee, 2015; Charitou et al., 2007; Ghazali et al., 2015). When a company faces financial distress, the company's performance is no longer able to meet investor expectations, resulting in a decrease in stock prices and a narrowing of funding opportunities from debt issuance (Li et al., 2020). In financial distress, managers tend to carry out earnings management to maintain the company's financial performance (Agrawal & Chatterjee, 2015; Campa & Camacho-Miñano, 2015; Kyriakou, 2020; Li et al., 2020). Earnings management practices are carried out in the optimism that bad financial conditions are only temporary. In this case, earnings management is an effort to encourage increased revenue and hide the financial condition of real companies until the company returns to stability (Rosner, 2003; Tulcanaza-Prieto & Lee, 2022).

Financial distress and excellent financial conditions create a profit-and-loss perspective which causes a risk aversion preference in managerial decision-making (Kahneman & Tversky, 2012). This study uses prospect theory (Kahneman & Tversky, 2012) to explain the decision-making of individuals who are faced with certain pressure conditions or risks (Kahneman & Tversky, 2012), explaining that the utility theory model is not fully able to describe decision-making by individuals under pressure conditions or conditions certain risks, which makes decision making difficult to predict. The effect of uncertainty causes risk aversion choices in decision-making involving the calculation of profit and loss due to the decisions taken (Kahneman & Tversky, 2012). Prospect theory represents the main paradigm in the field of behavior that describes the assumption of limited rationality. The company's management takes more risk when the company's performance is below expectations and takes less risk when the company's performance is above expectations. Research conducted by (Bowman, 1982) shows that companies with financial performance problems are more vulnerable to high-risk operational activities. These results are in line with research conducted by Fiegenbaum (1990) and Fiegenbaum and Thomas (1988) which found that companies behave as risk-takers when the company's financial performance falls below a certain reference point and avoid risk when performance exceeds a certain reference point. The literature related to the financial performance of companies shows a logical direction that is in line with prospect theory, which shows that companies with poor financial performance have incentives to engage in aggressive strategies (Brander & Lewis, 1986). Brander and Lewis (1986) and Johnson (2022) explain that when firms take on more debt, they will have incentives to pursue riskier and more aggressive strategies in order to obtain higher returns in favorable market conditions. Firms with high debt

levels have competitive strategies that involve high-risk cash flows and suggest that financial pressures incentivize more aggressive corporate behavior.

Based on the perspective of prospect theory, the financial distress experienced by the company can form a negative framing that makes company managers try to maximize profits. The negative framing effect due to the pressure of financial distress conditions creates a cognitive bias in managerial decision-making, which causes the company's management to be more open to risk so that it can affect the tendency of the company's earnings management practice. Based on the description, the first hypothesis in this study can be described as follows:

H1: Financial distress has a positive effect on earnings management

Meanwhile, the company's excellent financial condition can create a positive framing effect that makes the company's management try to lower the level of expectations for future earnings. The positive framing effect creates a bias in management cognition, which makes the company's management tend to avoid losing credibility due to a decrease in the level of future earnings, thereby influencing the company's discretionary decision-making. Based on the description, the second hypothesis in this study can be described as follows:

H2: Excellent financial condition has a positive effect on earnings management

RESEARCH METHOD

This research is quantitative. The sample in this study consists of companies listed on the stock exchanges of countries in the Asian continent, which include the following twelve key countries: China, India, Indonesia, Japan, South Korea, Malaysia, Pakistan, Philippines, Singapore, Thailand, Turkey, and Vietnam. The sample countries were chosen because they have medium and low levels of investor protection (Athari, 2022; Siekkinen, 2016). The level of investor protection reflects the institutional environment, the weaker the level of investor protection indicates a higher level of information asymmetry, thereby widening the opportunities for implementing earnings management practices (Chen et al., 2013).

The data used in this study were obtained through the Thomson Reuters Datastream database. The study's final sample consisted of 66,621 company and year observations, consisting of 13,695 companies, with an observation period from 2010 to 2019. The entire observation was then divided into three subsamples based on the company's Altman Z-Score value to better describe the company's financial condition. Table 1 shows the distribution of companies based on the Altman Z-Score value and the year of observation.

Earnings management practices in this study were measured using the discretionary accruals method. The discretionary accruals method is used because it is considered capable of capturing the quality of rational and universal accounting information (Agrawal & Chatterjee, 2015; Utama & Purwanti, 2019).

137

A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent
Firdaus Kurniawan, Nandya Octanti Pusparini, Hilma Tsani Amanati, Albertus Henri Listianto Nugroho

Table 1. Distribution of companies based on the Z-Score Altman

Year	Z-Score < 1.81 Number of Companies	1.81 > Z-Score < 2.99 Number of Companies	Z-Score > 2.99 Number of Companies
2010	865	811	1022
2011	905	898	954
2012	1,045	1,028	1,232
2013	1,738	1,607	2,222
2014	2,132	2,227	3,310
2015	1,531	1,114	2,236
2016	2,064	2,125	3,594
2017	2,091	2,140	4,023
2018	2,398	2,227	3,928
2019	3,676	3,219	6,497

Source: Secondary data, processed

Jones Model and Modified Jones Model are considered to provide the most efficient way and results to estimate the company's discretionary accruals (Guay et al., 1996). The model developed by (Dechow & Dichev, 2002) is used to measure abnormal accruals by describing the regression model as follows:

$$\frac{TA_{jt}}{Asset_{jt-1}} = \alpha_j + \beta_1 \frac{1}{Asset_{jt-1}} + \beta_2 \frac{\Delta Sales_{jt} - \Delta Receivable}{Assets_{jt-1}} + \beta_3 \frac{PPE_{jt}}{Asset_{jt-1}} + \varepsilon_{jt} \ldots \ldots \ldots \ldots \ldots ..(1)$$

$TA_{j,t}$ is the total accuracy of company j in year t obtained through (ΔCurrent Assets – Cash - Current Liabilities + Current Portion of Long-Term Debt); $Assets_{j,t}$ is the total assets of company j in year t; $\Delta Sales_{jt}$ is the change in total sales of company j in year t; $\Delta Receivable_{jt}$ represents the change in the net value of company j's receivables in year t; PPE_{jt}s Gross Plant, property, and equipment of company j in year t. The nondiscretionary accrual value is obtained by entering the regression estimation results equation (1). Discretionary Accrual (DA) is obtained through the following derivative equation:

$$DA_t/A_{t-1} = TA_t/A_{t-1} - NDA_t/A_{t-1}$$

Although there are many proxies for measuring financial distress that has been developed, no one specific measure is universally accepted (Li et al., 2020). The Z-Score, defined by (Altman, 1968), is seen as an indicator of the company's overall financial condition (Agrawal & Chatterjee, 2015). This study uses a modified version of the Altman Z-Score developed by (Zang, 2011) as a proxy for the company's financial condition with the following equation translation:

$$ZSCORE_{it} = 0.3X_1 + 1.0X_2 + 1.4X_3 + 1.2X_4 + 0.6X_5$$

Zscore is a measure of financial distress; X1 is the ratio of net income to total assets; X2 is the ratio of sales to total assets; X3 is the ratio of retained earnings to total assets; X4 is the ratio of working capital to total assets, and X5 is the ratio of the market value of equity to the company's total liabilities. The higher the Z-Score value, the better the company's financial condition. To facilitate the discussion, this study multiplies the ZScore value by -1 to proxy the financial distress experienced by the company. This study uses a control variable for company characteristics that can be significantly associated with earnings management practices. The variables of net margin and ROE are used to control the company's performance measures. Meanwhile, Size, which is measured using the natural logarithm value of total assets, represents a proxy for company size.

In this study, we divide the Z-Score into three zones based on (Altman et al., 2019) namely: the "safe" zone, which describes companies with good financial conditions; the "gray" zone which describes companies with moderate financial conditions; and the "distress" zone which describes the company in financial distress. Although the cutoff is based on the original sample of companies, these zones are still used because they have clear, unambiguous, accurate, and consistent values in predicting the condition of company bankruptcy (Altman et al., 2019). The following is the distribution of Altman's Z-Score based on the three cutoffs above:

Z-Score > 2.99 – "Excellent financial conditions" Zone
1.81 > Z-Score < 2.99 – "Gray" Zone
Z-Score < 1.81 – "Distress" Zone"

This study uses multiple regression analysis to investigate the relationship between financial distress and earnings management practices. estimate using the regression model as follows:

$$DA_{it} = \beta_0 + \beta_1 ZSCORE_{i,t-1} + \beta_2 Size_{i,t-1} + \beta_3 ROE_{i,t-1} + \beta_4 GROWTH_{i,t-1} + \beta_5 CR_{i,t-1} + \beta_6 MTB_{i,t-1} + \varepsilon_{it} \quad .(2)$$

DA is the size of earnings management practice using the method of discretionary accruals; ZScore is financial distress as measured by Z-Score Altman; Size is company size as measured using the natural logarithm of total assets, and ROE is the return on equity, GROWTH is the percentage growth of total assets, CR is current ratio, and MTB is a value of the market to book value. The model consists of the dependent variable discretionary accruals and the independent variable Z-Score Altman. The size of the company variable is possible to influence the degree of earnings management and is used as the first control variable in the research model (Charitou et al., 2007; Chen et al., 2010; Habib et al., 2013). Larger companies have better internal control systems and more stringent audits and are concerned about the loss of reputation due to earnings management practices. Therefore, companies with a larger size tend not to engage in earnings management practices. On the other hand, companies with low earnings try to maintain earnings above a certain level to avoid the risk of declining firm value (Chen et al., 2010), therefore this study uses ROE, Growth, CR (Current Ratio), and MTB (Market to Book Value) values to describe the characteristics of each company.

139

A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent
Firdaus Kurniawan, Nandya Octanti Pusparini, Hilma Tsani Amanati, Albertus Henri Listianto Nugroho

RESULTS AND DISCUSSION

Result

Table 2 shows descriptive statistics for the three zones of the company's financial condition. The average (standard deviation) discretionary accruals for companies in the financial distress zone show a 1.677 (31.230) value. The average (standard deviation) discretionary accruals for companies in the gray zone show a value of 1.142 (37.295).

Table 2. Descriptive Statistic Analysis

Variable	Mean	Std Deviation	Min	Max
Panel 2A. Descriptive Statistics of Financial distress zone				
DA	1.677	31.230	5.280	1,441.473
FD	-0.515	19.512	-1.809	1,295.662
Size	3,496,981	1.56e+07	11	4.72e+08
ROE	-7.873	166.562	-15870	2056
Growth	1,259.697	166,225.5	-99.99	2,056.79
CR	1.370	9.268	-1.07	1,244.41
MTB	1.325	150.672	0.000	20,463.320
Panel 2B. Gray Zone Descriptive Statistics				
DA	1.142	37.295	5.89e-08	2,983.72
FD	2,327	0.310	1.810	2.899
Size	1,873,509	8,623,216	722	4.04e+08
ROE	6.663	21.140	-1,366.27	522.38
Growth	8.308	60.197	-78.38	4,954.71
CR	1.797	1.462	0.03	85.41
MTB	0.301	0.214	-0.012	5.152
Panel 2C. Safe Zone Descriptive Statistics				
DA	0.814	25.675	4.08e-07	1,818.437
FD	-8.581	26.199	-1,226.465	-2.900
Size	886.804	4,995,400	430	3.09e+08
ROE	9.948	95.674	-15,824.42	529.09
Growth	79.696	10,356.8	-86.81	1,757,524
CR	3.956	10.421	0.08	711.49
MTB	0.985	1.507	0.017	62.936

Source: Secondary data, processed

Meanwhile, the average (standard deviation) discretionary accruals for companies in the safe zone show a value of 0.814 (25.675). The higher average value of discretionary accruals for companies in the financial distress zone and the safe zone indicates a higher tendency for earnings management for companies in the two zones. The average (standard deviation) FD for companies in the financial distress zone shows a -0.515 (19.512) value. The average (standard deviation) FD for companies in the gray zone shows a 2.327 (0.310) value. The average (standard deviation) FD for companies in the safe zone shows a -8.581 (26.199) value. The average (standard deviation) size for companies in the financial distress zone shows a 3,496,981 (1.56e+07) value.

Table 3. Pearson Correlation

Panel 3A. Financial Distress Zone Pearson Correlation

Variable	DA	FD	Size	ROE	Growth	CR	MTB
DA	1.000						
FD	0.189*	1.000					
Size	-0.118*	-0.063*	1.000				
ROE	-0.067*	-0.147*	0.067*	1.000			
Growth	-0.057	0.017*	0.005	0.000	1.000		
CR	-0.001	-0.197*	-0.033*	-0.004	-0.001	1.000	
MTB	0.018*	0.012	-0.040*	0.000	-0.000	0.000	1.000

Panel 3B. Financial Gray Zone Pearson Correlation

Variable	DA	FD	Size	ROE	Growth	CR	MTB
DA	1.000						
FD	-0.018*	1.000					
Size	-0.106*	-0.031*	1.000				
ROE	0.000	0.028*	0.117*	1.000			
Growth	0.075*	0.013*	0.010	0.066*	1.000		
CR	0.018*	0.097*	-0.095*	-0.035*	-0.012*	1.000	
MTB	0.247*	0.164*	-0.087	0.046*	-0.061*	-0.083	1.000

Panels 3C. Pearson Correlation Safe Financial Zone

Variable	DA	FD	Size	ROE	Growth	CR	MTB
DA	1.000						
FD	0.188*	1.000					
Size	-0.127*	-0.170*	1.000				
ROE	0.042	0.007	0.024*	1.000			
Growth	-0.004	-0.002	0.000	0.001	1.000		
CR	0.073*	0.198*	-0.108*	-0.016*	-0.001	1.000	
MTB	0.145*	0.591*	-0.143*	-0.001	0.000	0.025	1.000

Source: Secondary data, processed

The average (standard deviation) size for companies in the gray zone shows a 1,873,509 (8,623,216) value. The average (standard deviation) size for companies in the safe zone shows an 886.804 (4,995,400) value.

The average (standard deviation) ROE for companies in the financial distress zone shows a -7.873 (166.562) value. The average (standard deviation) ROE for companies in the gray zone shows a 6.663 (21.140) value. The average (standard deviation) ROE for companies in the safe zone shows a 9.948 (95.674) value. The average (standard deviation) GROWTH for companies in the financial distress zone shows a 1,259.697 (166,225.5) value. The average (standard deviation) GROWTH for companies in the gray zone shows an 8.308 (60.197) value. The average (standard deviation) GROWTH for companies in the safe zone shows a 79.696 (10,356.8) value.

The average (standard deviation) CR for companies in the financial distress zone shows a 1.370 (9.268) value. The average (standard deviation) CR for companies in the gray zone shows a 1.797 (1.462) value. The average (standard deviation) CR for companies in the safe zone shows a 3.956 (10.421) value. The average (standard deviation) MTB for companies in the financial distress zone shows a 1.325 (150.672) value. The average (standard deviation) MTB for companies in the gray zone shows a 0.301 (0.214) value. The average (standard deviation) MTB for companies in the gray zone shows a 0.985 (1.507) value.

Table 4. Results of Financial Distress Regression on Discretionary Accruals

DA	Coef	Std. Error	z	P>|z|	[95% Conf. Interval]	
FD	0.029	0.001	16.21	0.000	0.025	0.032
Size	-0.003	0.000	-4.61	0.000	-0.004	-0.001
ROE	-0.000	5.620	-4.70	0.000	-0.000	-0.000
Growth	-3.500	3.860	-0.91	0.365	-1.110	4.060
CR	0.002	0.000	2.95	0.003	-0.000	0.004
MTB	0.000	4.180	3.09	0.002	4.740	0.000
Cons	0.176	0.009	18.91	0.000	0.157	0.194

Coefficients: generalized least square, Panels: homoscedastic, Correlation: no autocorrelation
Wald chi2 (3) = 875.79, Log likelihood = 13580.97, Prob > chi2 = 0.0000

Source: Secondary data, processed

Table 3 contains a Pearson correlation analysis for the three zones of the company's financial condition. In Panel 3A, it is known that there is a positive correlation between financial distress and discretionary accruals, with a correlation value of 0.189 at a significance level of 0.05. This value implies that the higher the financial distress experienced by the company, the higher the magnitude of earnings management carried out by the company in the distress zone. In panel 3B, it is known that there is a negative correlation between the company's financial condition and discretionary accruals with a correlation value of -0.018, which implies that the better the financial condition of the sample companies that are in the gray zone, the lower the magnitude of

discretionary accruals made by the sample companies. Meanwhile, in panel 3C, it is known that there is a positive correlation between the company's financial condition and discretionary accruals for the sample companies that fall into the safe zone, with a correlation value of 0.188 at a significance level of 0.05. This value implies that the better the financial condition of the sample companies that fall into the safe zone category, the higher the magnitude of discretionary accruals made by the sample companies.

Table 4 presents the regression results of the company's financial distress and discretionary accruals. After controlling for firm size, ROE, Assets Growth, Current Ratio, and Market to Book Value, financial distress shows a positive and statistically significant direction on the magnitude of earnings management. The positive and significant relationship is shown by the coefficient value of 0.029 with a value of p>|z| of 0.00 which is lower than the significance level of 0.05. This indicates that the higher the financial distress experienced by the sample companies, the higher the company's tendency to practice earnings management, which at the same time confirms the support for the first hypothesis in this study.

Table 5. Results of the Company's Excellent Financial Conditions Regression on Discretionary Accruals

DA	Coef	Std. Error	z	P>|z|	[95% Conf. Interval]	
ZScore	0.001	0.000	10.28	0.000	0.001	0.001
Size	-0.004	0.000	-5.83	0.000	-0.005	-0.002
ROE	0.000	7.530	1.50	0.134	-3.460	0.000
Growth	-5.620	0.000	-0.81	0.416	-1.920	7.910
CR	0.000	0.000	5.32	0.000	0.000	0.000
MTB	0.000	0.000	7.99	0.000	0.005	0.008
Cons	0.135	0.008	15.60	0.000	0.118	0.152

Source: Secondary data, processed

Table 5 presents the results of excellent financial conditions regression and discretionary accruals. The regression results show a positive and statistically significant relationship between the company's excellent financial condition and discretionary accruals. This relationship is shown through the coefficient value of 0.001 with a value of p>|z| of 0.000 which is lower than the significance level of 0.05. This indicates that the better the company's financial condition, the higher the magnitude of earnings management practices through discretionary accruals, as well as confirming the support for the second hypothesis in this study.

Table 6 presents the regression results of the financial condition of companies in the gray zone based on Altman's categorization and the company's earnings management practices. Demirkan Platt (2009) explains that companies in safe, gray, and distressed financial conditions have different characteristics. The gray category shows the condition of the company that is between safe and distressed, with the level of risk of company bankruptcy being at a moderate level. Altman (1948) made a special definition of the gray zone because of the vulnerability to misclassification which affects the grouping of companies included in this zone. Therefore,

143

A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent
Firdaus Kurniawan, Nandya Octanti Pusparini, Hilma Tsani Amanati, Albertus Henri Listianto Nugroho

separate testing of companies that are in the gray zone needs to be carried out because there is a tendency for different decision-making patterns for companies that fall into this zone.

Table 6. Regression Results of Company Financial Conditions in The Gray Zone and Discretionary Accruals

DA	Coef	Std. Error	z	P>|z|	[95% Conf. Interval]	
FC	-0.018	0.002	-8.22	0.000	-0.022	-0.013
Size	-0.004	0.000	-6.56	0.000	-0.005	-0.002
ROE	0.000	0.000	2.32	0.021	-0.000	-0.000
Growth	0.000	0.000	7.03	0.000	0.000	0.000
CR	0.000	0.000	1.16	0.246	-0.000	0.001
MTB	0.081	0.003	21.54	0.000	-0.073	0.088
Cons	0.142	0.009	15.20	0.000	0.123	0.160

Source: Secondary data, processed

The regression results show that there is a statistically significant negative relationship between the company's financial condition in the gray zone and the company's discretionary accruals. The negative and statistically significant relationship is shown by the coefficient value of -0.018 with a value of p>|z| of 0.000, which is lower than the significance level of 0.05.

Table 7. Regression Results of Company Financial Conditions on Income-Increase (Decrease) Discretionary Accruals

Panel 7A. Company Financial Condition Regression and Income-Increase Discretionary Accruals						
DA	Coef	Std. Error	Z	P>|z|	[95% Conf. Interval]	
FC	0.002	0.000	13.15	0.000	0.002	0.003
Size	-0.001	0.001	-1.90	0.058	-0.003	0.000
ROE	0.000	0.000	4.45	0.000	0.000	0.000
Growth	-6.150	7.910	-0.78	0.437	-2.160	9.350
CR	0.000	0.000	5.69	0.000	0.000	0.001
MTB	0.003	0.001	1.91	0.056	-0.000	0.006
Cons	0.113	0.012	8.89	0.000	0.088	0.138
Panel 7B. Company Financial Condition Regression and *Income-Decrease Discretionary Accruals*						
DA	Coef	Std. Error	Z	P>|z|	[95% Conf. Interval]	
FC	0.000	0.000	2.28	0.023	0.000	0.000
Size	-0.006	0.000	-11.05	0.000	-0.007	-0.005
ROE	-9140	5.030	-0.18	0.856	-0.000	-8.940
Growth	0.000	0.000	9.23	0.000	0.000	0.000
CR	-0.000	0.000	-1.92	0.054	-0.000	2.950
MTB	0.003	0.000	8.28	0.000	0.000	0.000
Cons	0.146	0.007	19.78	0.000	0.131	0.160

Source: Secondary data, processed

In order to better describe the relationship between excellent financial conditions and company discretionary accruals, this study divides discretionary accruals into income-increase discretionary accruals and income-decrease discretionary accruals. Panel 7A in Table 7 shows the results of the regression of the company's financial condition and income-increase discretionary accruals. The regression results in panel 7A show a positive relationship (coefficient 0.002) and statistically significant ($p>|z|$ value of 0.000), between excellent financial conditions and income-increase discretionary accruals. Panel 7B shows the regression results of excellent financial conditions and income-decrease discretionary accruals. The regression results in panel 7b show a statistically significant positive relationship (coefficient 0.0005) ($p>|z|$ value of 0.023), between excellent financial conditions and income-decrease discretionary accruals.

Discussion

Testing the first hypothesis in this study shows a positive and statistically significant relationship between financial distress and the magnitude of the company's earnings management. The findings in this study are in line with Chen et al. (2010) and Charitou et al. (2007) which state that the tendency of earnings management practices is higher under the pressure of poor financial conditions as a form of the company's efforts to avoid default, special monitoring of government, and the threat of delisting. The negative correlation between firm size and discretionary accruals indicates that firms in the financial distress zone with larger sizes tend to be less likely to practice earnings management. Larger companies have better internal control systems and more stringent audits and are concerned about the loss of reputation due to earnings management practices. The regression results also support the first hypothesis in this study, which states that financial distress positively affects earnings management. The results of testing the first hypothesis in this study are in line with the prospect theory, which states that the company's poor financial condition creates a negative framing effect that causes company management to tend to be more open to risk (Kahneman & Tversky, 2012) to escape from the company's bad financial condition. This openness to risk is actualized into real activities through earnings management practices to report increased profits during the company's poor financial condition (Burgstahler & Eames, 2006) as a form of effort to maintain financial stability that has been obtained today. Company management uses earnings management practices to reduce earnings variability amid good financial conditions (Burgstahler & Eames, 2006; Kanagaretnam et al., 2004).

Meanwhile, the results of testing the second hypothesis indicate that the better the company's financial condition, the higher the magnitude of earnings management practices through discretionary accruals and confirm the support for the second hypothesis in this study. These results are in line with prospect theory which explains that the company's excellent financial condition creates a positive framing effect that causes company management to tend to be more closed to risk (Kahneman & Tversky, 1979) as a form of effort to maintain the credibility of the company that has been obtained at this time. Company management uses earnings management practices to reduce earnings variability during good financial conditions

(Bergstresser & Philippon, 2006; Kanagaretnam et al., 2004) to ensure the credibility of the company's financial performance is maintained.

The results of the additional analysis test show that the financial condition of companies in the gray zone has a negative and statistically significant relationship with the magnitude of earnings management. This indicates that the increase in the financial condition of companies in the gray zone reduces the magnitude of the company's discretionary accruals. The researcher argues that companies in the Gray zone are companies with transitional financial conditions from financial distress to safe conditions. In other words, there are still fluctuations in the company's financial condition, which causes company management to try to minimize risk by reducing management practices. Additional analysis results in table 6 indicate that the better the company's financial condition, the higher the practice of earnings management in the form of income-increase discretionary accruals and income-decrease discretionary accruals. This is because companies that have a lack free cash flow tend to use debt as a source of funding (Stulz, 1990), debt, in this case, has a function as a supervisory mechanism that prevents company managers from taking irresponsible actions and prioritizing personal interests (Ferrell et al., 2016). Surplus cash flow can create incentives for company managers to engage in earnings management practices that increase the level of earnings in financial statements as a form of signaling financial flexibility. Management in companies with good financial conditions not only carries out earnings management practices that increase profits in financial statements (Agrawal & Chatterjee, 2015) in order to reduce the threat of bonus cuts, loss of reputation, and loss of investor confidence but also carries out earnings management practices that lowering the level of profit in the financial statements to reduce shareholder expectations regarding the company's performance in the future. These results also indicate that managers are more inclined to obtain their personal benefits (Ghazali et al., 2015).

CONCLUSIONS

This study found that the company's financial condition affects managerial decision-making to practice earnings management. Financial condition is believed to be a form of pressure that affects management's judgment in managing the company's future risks. The financial crisis experienced by the company encourages managers to carry out earnings management to maintain the company's image and avoid bankruptcy. Meanwhile, the sound financial condition of the company encourages company management to tend to carry out earnings management to manage stakeholder expectations for the company's prospects. The results of the additional analysis test show that an increase in the financial condition of companies in the gray zone reduces the magnitude of the company's discretionary accruals. The fluctuation of the company's financial condition in the gray zone causes the company's management to try to minimize risk by reducing management practices. Additional analysis results also show that companies with better financial

conditions tend to practice earnings management, both in income-increase discretionary accruals and income-decrease discretionary accruals.

This study contributes to the literature by providing a better understanding of the impact of corporate financial conditions on earnings management by taking each zone into account. This study makes several implications. First, it can be used as the basic reasoning for a regulator to start considering companies that have an excellent financial condition. This is important because this research has documented that companies still have a strong tendency to conduct earnings management to maintain a good impression towards their shareholder. Second, this result can be knowledge for investors in their decision-making so that they are not trapped in the hegemony of good financial conditions. This study measures earnings management using discretionary accruals so that it only captures earnings management practices that are part of the company's discretionary accrual policy. Future research is expected to further study earnings management with a real earnings management approach to examine the effect of the company's financial condition on the blurring of earnings information in financial statements through the company's actual activities.

List of Abbreviations

"US" United States; "FD" Financial Distress; "TA" Total Assets; "PPE" Plant, Property, Equipment; "DA" Discretionary Accrual; "NDA" Non-Discretionary Accrual; "ROE" Return on Equity; "CR" Current Ratio; "MTB" Market to Book Value.

Authors' Contribution

FK, constructing idea construction, writing hypotheses, collecting data, and doing statistical processing. NOP, wrote a literature review, and finalized the manuscript. HTA, Interpreting statistical results, writing discussions, and finalizing manuscripts. AHLN writes research methodologies and performs statistical processing.

Authors' Information

Firdaus Kurniawan. Firdaus.kurniawan@mail.ugm.ac.id. Research assistant at the Faculty of Economics and Business, Gadjah Mada University. Has research interest in financial accounting.

Nandya Octanti Pusparini. Nandyaoctanti@mail.ugm.ac.id. Postgraduate student at the Faculty of Economics and Business, Gadjah Mada University. Have a research interest in the field of Financial Accounting.

147

A Cross Country Analysis of Financial Conditions and Earnings Management: Evidence from Asia Continent
Firdaus Kurniawan, Nandya Octanti Pusparini, Hilma Tsani Amanati, Albertus Henri Listianto Nugroho

Hilma Tsani Amanati. Hilmatsani97@mail.ugm.ac.id. Postgraduate student at the Faculty of Economics and Business, Gadjah Mada University. Have a research interest in the field of Financial Accounting. Albertus Henri Listianto Nugroho. Ahenrinugroho@mail.ugm.ac.id. Postgraduate student at the Faculty of Economics and Business, Gadjah Mada University. Have a research interest in the field of Financial Accounting

Funding

Conflicts of Interest

The authors declare that this research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Availability of Data and Materials

All data in this study were taken from the Refinitiv Thomson Reuters database and the Bereu van Dijk database which can be accessed through the library of the Faculty of Economics and Business, Gadjah Mada University.

REFERENCES

Agrawal, K., & Chatterjee, C. (2015). Earnings Management and Financial Distress: Evidence from India. *Global Business Review*, *16*(5), 140S-154S. https://doi.org/10.1177/0972150915601928

Altman, E. I. (1968). Financial Ratios, Discriminant Analysis and The Prediction of Corporate Bankruptcy. *The Journal of Finance*, *23*(4), 589–609. https://doi.org/10.1111/j.1540-6261.1968.tb00843.x

Altman, E. I., Hotchkiss, E., & Wang, W. (2019). *Corporate Financial Distress, Restructuring, and Bankruptcy*. John Wiley & Sons, Inc. https://doi.org/10.1002/9781119541929

Athari, S. A. (2021). Does investor protection affect corporate dividend policy? Evidence from Asian markets. *Bulletin of Economic Research*, *74*(2), 579–598. https://doi.org/10.1111/boer.12310

Bowman, E. H. (1982). Risk seeking by troubled firms. Journal of Sloan Management Review, 23(4), 33.

Brander, J. A., & Lewis, T. R. (1989). Oligopoly and financial structure: the limited liability effect. In *Cournot Oligopoly* (pp. 421–444). Cambridge University Press. https://doi.org/10.1017/cbo9780511528231.025

Burgstahler, D., & Eames, M. (2006). Management of Earnings and Analysts' Forecasts to Achieve Zero and Small Positive Earnings Surprises. *Journal of Business Finance Accounting*, *33*(5–6), 633–652. https://doi.org/10.1111/j.1468-5957.2006.00630.x

Campa, D., & Camacho-Miñano, M.-M. (2015). The impact of SME's pre-bankruptcy financial distress on earnings management tools. *International Review of Financial Analysis*, *42*, 222–234. https://doi.org/10.1016/j.irfa.2015.07.004

Charitou, A., Lambertides, N., & Trigeorgis, L. (2007). Earnings Behaviour of Financially Distressed Firms: The Role of Institutional Ownership. *Abacus*, *43*(3), 271–296. https://doi.org/10.1111/j.1467-6281.2007.00230.x

Chen, Y., Chen, C., & Huang, S. (2010). An appraisal of financially distressed companies' earnings management. *Pacific Accounting Review*, *22*(1), 22–41. https://doi.org/10.1108/01140581011034209

Chen, Z., Ke, B., & Yang, Z. (2013). Minority Shareholders' Control Rights and the Quality of Corporate Decisions in Weak Investor Protection Countries: A Natural Experiment from China. *The Accounting Review*, *88*(4), 1211–1238. https://doi.org/10.2308/accr-50424

Dechow, P. M., & Dichev, I. D. (2002). The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors. *The Accounting Review*, *77*(s-1), 35–59. https://doi.org/10.2308/accr.2002.77.s-1.35

Demirkan, S., & Platt, H. (2009). Financial status, corporate governance quality, and the likelihood of managers using discretionary accruals. *Accounting Research Journal*, *22*(2), 93–117. https://doi.org/10.1108/10309610910987475

Du, X., & Lai, S. (2015). Financial Distress, Investment Opportunity, and the Contagion Effect of Low Audit Quality: Evidence from China. *Journal of Business Ethics*, *147*(3), 565–593. https://doi.org/10.1007/s10551-015-2986-5

Ferrell, A., Liang, H., & Renneboog, L. (2016). Socially responsible firms. *Journal of Financial Economics*, *122*(3), 585–606. https://doi.org/10.1016/j.jfineco.2015.12.003

Fiegenbaum, A. (1990). Prospect theory and the risk-return association. *Journal of Economic Behavior & Organization*, *14*(2), 187–203. https://doi.org/10.1016/0167-2681(90)90074-n

Fiegenbaum, A., & Thomas, H. (1988). Attitudes Toward Risk and The Risk-Return Paradox: Prospect Theory Explanations. *Academy of Management Journal*, *31*(1), 85–106. https://doi.org/10.5465/256499

Ghazali, A. W., Shafie, N. A., & Sanusi, Z. M. (2015). Earnings Management: An Analysis of Opportunistic Behaviour, Monitoring Mechanism, and Financial Distress. *Procedia Economics and Finance*, *28*, 190–201. https://doi.org/10.1016/s2212-5671(15)01100-4

Habib, A., Uddin Bhuiyan, B., & Islam, A. (2013). Financial distress, earnings management, and market pricing of accruals during the global financial crisis. *Managerial Finance*, *39*(2), 155–180. https://doi.org/10.1108/03074351311294007

Johnson, T, C. (2022). Economic Uncertainty, Aggregate Debt, and the Real Effects of Corporate Finance. *Critical Finance Review*, *11*(1), 79–116. https://doi.org/10.1561/104.00000068

Kahneman, D., & Tversky, A. (2013). Prospect Theory: An Analysis of Decision Under Risk. In *Handbook of the Fundamentals of Financial Decision Making* (pp. 99–127). World Scientific. https://doi.org/10.1142/9789814417358_0006

Kanagaretnam, K., Lobo, G. J., & Mathieu, R. (2004). Earnings Management to Reduce Earnings Variability: Evidence from Bank Loan Loss Provisions. *Review of Accounting and Finance*, *3*(1), 128–148. https://doi.org/10.1108/eb043399

Kim, T., Kyung, H., & Ng, J. (2022). Top Management Team Incentive Dispersion and Earnings Quality. *Contemporary Accounting Research*. https://doi.org/10.1111/1911-3846.12778

Kyriakou, M. I. (2020). Earnings Manipulation and Financial Distress in the Eurozone and the Role of Auditor Size during the Current Recession. *Journal of East-West Business*, *26*(4), 391–409. https://doi.org/10.1080/10669868.2020.1848963

Li, Y., Li, X., Xiang, E., & Geri Djajadikerta, H. (2020). Financial distress, internal control, and earnings management: Evidence from China. *Journal of Contemporary Accounting & Economics*, *16*(3), 100210. https://doi.org/10.1016/j.jcae.2020.100210

Muljono, D. R., & Suk, K. S. (2018). Impacts of financial distress on real and accrual earnings management. *Jurnal Akuntansi*, *22*(2), 222. https://doi.org/10.24912/ja.v22i2.349

Rosner, R. L. (2003). Earnings Manipulation in Failing Firms. *Contemporary Accounting Research*, *20*(2), 361–408. https://doi.org/10.1506/8evn-9krb-3ae4-ee81

Rudiawarni, F. A., & Budianto, I. S. (2022). Opportunistic Behavior and Financial Distress: The Case of Earnings Management. In *Modeling Economic Growth in Contemporary Indonesia* (pp. 171–185). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80262-431-120221010

Saleh, N. M., & Ahmed, K. (2005). Earnings management of distressed firms during debt renegotiation. *Accounting and Business Research*, *35*(1), 69–86. https://doi.org/10.1080/00014788.2005.9729663

Siekkinen, J. (2016). Value relevance of fair values in different investor protection environments. *Accounting Forum*, *40*(1), 1–15. https://doi.org/10.1016/j.accfor.2015.11.001

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, *26*(1), 3–27. https://doi.org/10.1016/0304-405x(90)90011-n

Tulcanaza-Prieto, A. B., & Lee, Y. (2022). Real Earnings Management, Firm Value, and Corporate Governance: Evidence from the Korean Market. *International Journal of Financial Studies*, *10*(1), 19. https://doi.org/10.3390/ijfs10010019

Utama, I. W. W., & Purwanti, A. (2019). Earning Management Analysis before and after Implementation of International Financial Reporting Standards (IFRS): Empirical Study of Automotive and Components Companies Registered on the IDX. *Journal of Accounting and Strategic Finance*, *1*(01), 45–56. https://doi.org/10.33005/jasf.v1i01.25

Viana Jr, D. B. C., Lourenço, I., & Black, E. L. (2022). Financial distress, earnings management, and Big 4 auditors in emerging markets. *Accounting Research Journal*. https://doi.org/10.1108/arj-06-2021-0165

Zang, A. Y. (2011). 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