

Income Smoothing Moderates the Relationship Between Investment Opportunity Set, Accounting Conservatism, and Earnings Persistence on Earnings Response Coefficient



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ABSTRACT: This study aims to test and analyze Income Smoothing as a moderating variable in the relationship between the Investment Opportunity Set, Accounting Conservatism, and Earnings Persistence on the Earnings Response Coefficient in finance companies listed on the Indonesia Stock Exchange from 2019 to 2023. This research adopts a quantitative approach using secondary data. The data analysis method involves panel data regression tests and Moderated Regression Analysis (MRA) using Microsoft Excel and EViews 9 software. The population of this study consists of companies in the financial sector. Data were collected using a purposive sampling technique, resulting in 31 samples from a total population of 104 companies. The findings reveal that the Investment Opportunity Set, Accounting Conservatism, and Earnings Persistence collectively influence the Earnings Response Coefficient in finance companies from 2019 to 2023. Moreover, the results indicate that the Investment Opportunity Set and Earnings Persistence individually affect the Earnings Response Coefficient, while Accounting Conservatism does not have a significant effect.

KEYWORDS: Investment Opportunity Set, Accounting Conservatism, Earnings Persistence, Earnings Response Coefficient, IncomeSmoothing

INTRODUCTION

A company that reports high profits in its financial statements tends to attract the attention of investors to invest, as they expect to receive returns or profits. In general, fluctuations in a company's profits will impact fluctuations in stock returns in the same direction (Elvani et al., 2022). These stock price changes will encourage market participants to make economic decisions based on the information obtained from financial statements. The actions taken by market participants are commonly referred to as market reactions. The market reaction to accounting profit information can be measured through its sensitivity to stock price changes, known as the earnings response coefficient (ERC). A high ERC value indicates a strong market reaction to the company's profit information (Afifah, Pradipta, & Supriatna, 2023). ERC is another indicator of abnormal return observed as a response to unexpected earnings disclosed by the company when releasing its income statement (Widiatmoko & Indarti, 2018). In other words, ERC measures the stock market's sensitivity to earnings reporting through the regression slope coefficient between abnormal return and unexpected earnings. The market considers ERC important because it is one of the tools used to measure the relationship between earnings and stock returns. According to Holiawati, Rizky, & Ruhayat (2022), investors receive signals from the company's stock returns. Below is a graph of the historical performance obtained from the IDX website over the last five years.



Figure I.1 Historical Performance Graph

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Based on the historical performance chart above, it can be concluded that the Earnings Response Coefficient (ERC) can be used to indicate the potential fluctuations in stock prices as a market reaction to the earnings information disclosed by the company (Ayem & Lori, 2020). However, it cannot be denied that there are various factors that can influence the quality of the ERC variable, including both internal and external factors. In this study, the researcher selects several internal factors that may influence ERC, such as investment opportunity set (IOS), accounting conservatism, earnings persistence, and income smoothing.

One factor that can influence the Earnings Response Coefficient (ERC) is the investment opportunity set (IOS). IOS reflects a company's potential to invest, depending on its expenditure decisions for future benefits. The higher the growth opportunities that contribute to increased profits, the greater the company's ability to boost future earnings, thereby improving the quality of profits and facilitating the prediction of future earnings (Ayem & Lori, 2020). In addition to IOS, another factor that impacts ERC is accounting conservatism. Accounting conservatism refers to a cautious approach when dealing with future uncertainties and risks. The practice of accounting conservatism typically delays revenue recognition while accelerating expense recognition, which can affect the market's reaction to the earnings information released (Nasriani, Yunina, Khaddafi, & Mursidah, 2023).

Another factor is earnings persistence, which indicates a company's ability to maintain consistent profits over time. The more consistent the profits, the higher the ERC, reflecting that the company's earnings are expected to grow continuously, and the market response to this earnings trend will be stronger. The final factor affecting ERC is income smoothing. This practice aims to reduce fluctuations in a company's profits by leveling out earnings, thus making investors feel more secure as it reduces uncertainties that may arise from significant fluctuations in assets and liabilities. This helps minimize concerns about the company's long-term sustainability (Jayanti, Tantra, & Indarto, 2023).

LITERATURE REVIEW

Earnings Response Coefficient (ERC) has become an important phenomenon that reflects how the market responds to earnings information announced by companies. Amid global economic uncertainty, influenced by factors such as the pandemic, commodity price fluctuations, and changes in government policies, ERC becomes a highly relevant indicator to measure how quickly the market reacts to changes in a company's earnings. Companies with more stable and predictable earnings tend to have higher ERC, while companies experiencing significant or unexpected earnings fluctuations will receive weaker market responses (Jayanti, Tantra, & Indarto, 2023).

Moreover, the factor of accounting conservatism affects the value of ERC. Many companies adopt the principle of accounting conservatism to reduce uncertainty in their financial reports, but this can lower the predictive power of the earnings announced, as revenue is recognized more slowly and expenses are recognized more quickly. As a result, the market may give a lower response to earnings announcements from companies using a conservative approach (Nasriani, Yunina, Khaddafi, & Mursidah, 2023). Similarly, income smoothing practices, which are often applied to create stability in earnings reports, while increasing ERC, can raise concerns about the transparency and accuracy of the company's financial disclosures.

The investment opportunities and growth prospects of a company also have a significant impact on ERC. Companies with greater investment opportunities and high growth prospects tend to have higher ERC because the market expects sustained and increasing earnings. This is particularly relevant in the context of rapid technological developments, such as in fintech and healthcare technology, which accelerate transformation in certain industrial sectors (Ayem & Lori, 2020). Additionally, stricter regulations regarding financial statement transparency and information disclosure can drive a more positive market response and increase ERC, as the clearer and more credible the information provided by the company to the market.

The phenomenon of Earnings Response Coefficient (ERC) is an important measure in assessing the market's reaction to earnings information announced by a company, reflected in changes in its stock price. Variables such as Investment Opportunity Set (IOS), accounting conservatism, earnings persistence, and income smoothing influence how earnings information is received and interpreted by the market, which in turn affects the ERC value. To gain a deeper understanding of this phenomenon, it is essential to refer to several relevant theories, such as signaling theory, agency theory, and market efficiency theory.

Signaling theory, according to Spence (1973), explains that companies send signals to the market through their financial reports, reflecting the internal condition of the company. In the context of ERC, the signals provided by earnings announcements can influence market reactions, reflected in a higher ERC when companies provide clear and positive signals regarding their growth potential. For example, companies with a high IOS tend to show greater future profit potential, which can act as a positive signal to investors (Ayem & Lori, 2020). This indicates that companies with more investment opportunities will receive a stronger market response, reflected in a higher ERC value.

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From the perspective of agency theory, the issues that arise between managers and shareholders often relate to differing interests and asymmetric information (Jensen & Meckling, 1976). Managers may not always disclose the most accurate information about the company's performance, which can affect the market's perception of the reported earnings. Accounting conservatism practices are often used as a mechanism to reduce the risks associated with inaccurate information by delaying revenue recognition and accelerating expense recognition. However, if accounting conservatism is excessively applied, it may cause the market to respond weakly to the earnings information released, lowering the ERC value. On the other hand, Market Efficiency Theory, as explained by Fama (1970), asserts that financial markets are efficient, and stock prices reflect all available information. In the context of ERC, this theory suggests that the market will immediately respond to changes in a company's earnings with prices that accurately reflect this information. If a company's earnings report is perceived as inadequate or unreliable due to excessive income smoothing practices, the market may respond slowly or not at all. Income smoothing, which aims to reduce earnings volatility, can create distortions in the actual earnings information, reducing ERC (Jayanti, Tantra, & Indarto, 2023). Thus, while companies may try to stabilize their earnings, this practice can influence how the market responds to the information presented. Investment Opportunity Set (IOS) refers to the concept that describes the extent to which a company has profitable investment opportunities in the future, often measured through indicators such as the price-to-book ratio or investment ratios. Companies with high IOS are believed to have more opportunities to expand their business and increase profits, which can potentially improve market expectations for the company's future performance. High IOS is often associated with earnings announcements that can affect the market's response to these announcements. Research by Alves & Martins (2020) shows that high IOS is positively correlated with the Earnings Response Coefficient (ERC), as companies with more investment opportunities are often considered more attractive by investors. However, Fitriah's (2020) study found that in the property and real estate sector, IOS does not significantly affect ERC, suggesting that in certain contexts, even if a company has numerous investment opportunities, this does not always translate into a market response to the announced earnings. Accounting Conservatism refers to an accounting principle that emphasizes the recognition of losses and liabilities quickly, but acknowledges profits more cautiously and slowly. This conservatism is viewed as a form of prudence in financial reporting that aims to reduce the risk of overestimating a company's performance. With accounting conservatism, companies attempt to create a more realistic perception of their performance in the eyes of investors. Research by Aritonang & Ariefianto (2022) shows that accounting conservatism positively affects ERC, as investors value accuracy and transparency in financial reporting, which reduces uncertainty. However, Chandra (2020) found that for overly conservative companies, ERC could decrease because investors may doubt the transparency or actual profit potential. Earnings Persistence refers to a company's ability to consistently generate profits from period to period. Stable and sustainable profits indicate good management and the company's ability to effectively manage costs and revenues. Earnings persistence is considered an important indicator for investors because predictable and stable earnings increase market confidence. Research by Afifah, Pradipta, & Supriatna (2023) and Ahabba & Sebrina (2020) shows that earnings persistence positively affects ERC, as consistent earnings increase the market's response to earnings announcements. On the other hand, Chandra (2020) found that companies with unstable or fluctuating earnings tend to have lower ERC because market uncertainty about the company's performance affects investor perception of earnings announcements. Income Smoothing is a practice used by companies to reduce earnings volatility by adjusting or deferring the recognition of revenue or expenses, thereby creating more stable earnings over time. The goal is to reduce fluctuations that could surprise investors and the market. While income smoothing can make financial statements appear better, excessive use of this practice may reduce the credibility of the company's financial reports. Research by Christian & Ahalik (2020) shows that income smoothing can negatively affect ERC because the market tends to doubt the accuracy of reported earnings if it is seen as the result of manipulative earnings management practices. However, a study by Jayanti, Tantra, & Indarto (2023) showed that if done transparently and not deceptively, income smoothing can actually increase ERC, as investors may view it as a strategy to manage earnings uncertainty. Before formulating the hypotheses underlying this research, it is important to understand the relationship between the variables being studied and how each of these variables may influence the Earnings Response Coefficient (ERC). ERC measures the extent to which the market responds to earnings information announced by a company. Various factors can influence ERC, including the Investment Opportunity Set (IOS), accounting conservatism, earnings persistence, and the role of income smoothing in moderating the relationship between these factors and ERC. This study aims to examine the relationship between these variables and how income smoothing can moderate the impact of each factor on ERC. The Investment Opportunity Set (IOS) is related to the investment opportunities available to a company, which may affect the market's response to earnings information. Companies with more investment opportunities tend to attract more investor attention, which leads to a greater market response to earnings announcements. A study by Alves and Martins (2020) showed that companies with higher IOS tend to receive a larger market response because the market

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expects higher future growth. Therefore, the more investment opportunities a company has, the greater the response investors give to published earnings information, which in turn affects ERC.

H1: It is suspected that Investment Opportunity Set (IOS) affects the Earnings Response Coefficient (ERC).

Accounting conservatism refers to how companies recognize earnings cautiously and more slowly, which may influence the market's response to earnings announcements. Research by Chandra (2020) found that companies applying accounting conservatism tend to recognize earnings more cautiously. Although the reported earnings may be lower, this approach reduces uncertainty in the earnings report and provides a clearer picture of the company's performance stability. This can lead to a more stable market response to earnings announcements, which ultimately affects ERC.

H2: It is suspected that Accounting Conservatism affects the Earnings Response Coefficient (ERC).

Earnings persistence reflects a company's ability to maintain its performance from period to period. Research by Afifah et al. (2023) revealed that companies with more persistent earnings tend to show more stable performance and reduce market uncertainty regarding future earnings. Earnings that can be sustained improve market expectations for the company's future performance, thereby influencing the market's response to earnings announcements and potentially increasing ERC.

H3: It is suspected that Earnings Persistence affects the Earnings Response Coefficient (ERC).

Income smoothing may moderate the relationship between IOS and ERC. Income smoothing, which is done to reduce earnings fluctuations, can help investors more easily assess the growth prospects of companies with many investment opportunities. A study by Rizqi et al. (2020) found that income smoothing minimizes the earnings fluctuations that occur, making it easier for the market to evaluate investment opportunities and respond to earnings announcements. Therefore, income smoothing can moderate the relationship between IOS and ERC.

H4: It is suspected that Income Smoothing affects the Earnings Response Coefficient (ERC), moderated by the Investment Opportunity Set (IOS).

Income smoothing is also suspected to moderate the relationship between accounting conservatism and ERC. Research by Aritonang and Ariefianto (2022) revealed that income smoothing can reduce the impact of earnings fluctuations caused by the conservative approach in accounting. Even though companies apply accounting conservatism, which makes earnings recognition more cautious, income smoothing can help minimize earnings volatility, making the market's response to earnings information clearer and more stable. Thus, income smoothing can moderate the effect of accounting conservatism on ERC.

H5: It is suspected that Income Smoothing affects the Earnings Response Coefficient (ERC), moderated by Accounting Conservatism.

Income smoothing is also suspected to moderate the relationship between earnings persistence and ERC. A study by Rachmawati (2021) showed that income smoothing can reduce the uncertainty associated with earnings fluctuations, strengthening the market's response to more persistent earnings. With income smoothing, large earnings fluctuations can be minimized, and more stable earnings can demonstrate a company's ability to maintain its performance in the future. This allows the market to focus more on the quality of more sustainable earnings and provide a larger response to earnings announcements, which affects ERC.

H6: It is suspected that Income Smoothing affects the Earnings Response Coefficient (ERC), moderated by Earnings Persistence.

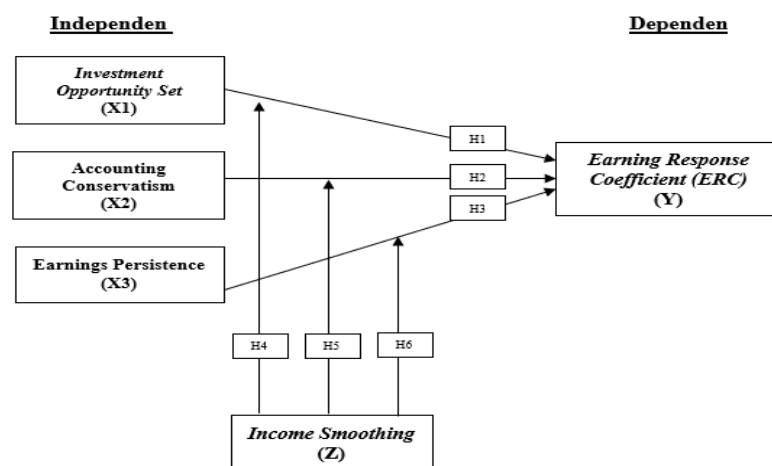


Figure II.1 Research Model

Source: Research Data, 2024

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RESEARCH METHOD

This study uses an associative quantitative approach involving hypothesis testing, aimed at uncovering the causal relationship and influence between variables through the testing process. This research will examine the influence of Investment Opportunity Set, accounting conservatism, and earnings persistence on the earnings response coefficient, moderated by income smoothing in the financial sector. Data analysis is carried out after the data collection and processing are completed, utilizing company financial statements. The data sources in this study are derived from financial statements and annual reports of financial sector companies listed on the Indonesia Stock Exchange (IDX). According to Sugiyono (2017: 232), "Data analysis is an activity carried out after data from all respondents or other data sources are collected. This process involves grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, and performing calculations to answer problem formulations and test the proposed hypotheses.

In this study, the dependent variable used is the Earnings Response Coefficient, which is influenced by independent variables. The measurement used in this research involves several stages, as explained by Fitriah (2020).

1. The First Stage:

- The daily stock return is calculated using the formula:

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$$

Explanation:

R_it = Stock return of company i in year t

P_it = Closing price of stock i on day t

P_(it-1) = Closing price of stock i on day t-1

- Daily market return, calculated using the formula:

$$R_{mt} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$$

Explanation:

R_mt = Daily market return

IHSG_t = Composite Stock Price Index (IHSG) on day t

IHSG_(t-1) = Composite Stock Price Index (IHSG) on day t-1

- Calculating abnormal return

$$AR_{it} = R_{it} - R_{mt}$$

Explanation:

AR_it = Abnormal Return of company i on event period t

R_it = Stock return of company i in year t

R_mt = Daily market return

- Calculating cumulative abnormal return

$$CAR_{i(t-5,t+5)} = \sum_{t-5}^{t+5} AR_{it}$$

Explanation:

CAR_i(t-5,t+5) = Cumulative abnormal return of company i during the 5 days before, the day of, and the 5 days after the earnings publication date.

AR_it = Abnormal return for company i

2. The second stage is to calculate unexpected earnings (UE).

$$UE_{it} = \frac{EPS_{it} - EPS_{it-1}}{EPS_{it-1}}$$

Explanation:

UE_it = Unexpected Earnings of company i at period t

EPS_it = Earnings per share of company i at period t

EPS_(it-1) = Earnings per share of company i at the previous period

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3. The third stage is to calculate the Earning Response Coefficient (ERC).

The coefficient (β) obtained is derived from the regression between CAR and UE.

$$CAR_{i(t-5,t+5)} = \alpha + \beta UE_{it} + e$$

Explanation:

ERC = Earnings Response Coefficient (ERC) of company i

UE_{it} = Unexpected Earnings of company i at time t

α = Constant

β = Coefficient that represents the ERC

e = Error

Independent variables are variables that influence or cause changes in the dependent variable (Sugiyono, 2019). In this study, the independent variables are investment opportunity set, accounting conservatism, and earnings persistence.

1. Investment Opportunity Set

Investment Opportunity Set (IOS) refers to investment decisions in the form of a combination of assets and future investment opportunities. In this study, IOS is measured using the Market Value To Book Value Of Assets Ratio (MVBVA), which compares the book value of a company's assets to the market value of those assets. The calculation of Investment Opportunity Set is conducted by following the methodology of (Nurchayani & Ridarmelli, 2021), which is:

$$MVBVA = \frac{\text{Total Assets} - \text{Total Equity} + (\text{Outstanding Shares} \times \text{Closing Price})}{\text{Total Assets}}$$

2. Accounting Conservatism

Based on the research by (Ayem & Lori, 2020), conservatism is measured using conservatism based on accrual items. The formula used is as follows:

$$CONACC = \frac{(\text{NI} + \text{DEP} - \text{CFO}) \times -1}{\text{Total Assets}}$$

Explanation:

Conacc : Accounting Conservatism

NI : Net Income

DEP : Depreciation

CFO : Cash Flow from Operations

3. Earning Persistence

The measurement of earnings persistence in this study will follow the research conducted by (Nasriani, Yunina, Khaddafi, & Mursidah, 2023), where the data scale used to measure earnings persistence is a ratio scale. The formula used to measure earnings persistence is as follows:

$$\text{Earnings Persistence} = \frac{\text{Earnings before tax in year } t - \text{Earnings before tax in year } t-1}{\text{Total Assets}}$$

Explanation:

t: Earnings of company i in year t

t-1: Earnings of company i in year t-1

According to Sugiyono (2017), a moderating variable is one that influences or strengthens the relationship between the independent and dependent variables. This study uses Income Smoothing as a moderating variable, denoted as Z. Income smoothing is typically implemented by companies with fluctuating profits because investors tend to prefer stable earnings, which are perceived as less risky. In this study, income smoothing is measured using the Eckel Index (1981) as referenced in research by Ma'rifah, Amarta, and Sany (2022). The calculation involves dividing the average income by the average sales. The income smoothing, using the Eckel index, is calculated as follows:

$$\text{Income Smoothing Index} = \frac{CV \Delta I}{CV \Delta S}$$

Explanation:

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ΔI : The change in profit during a period

ΔS : The change in sales during a period

CV: The coefficient of variation, calculated as the standard deviation of the changes in profit and sales divided by the expected values of the changes in profit and sales.

The population in this study consists of companies in the financial sector listed on the Indonesia Stock Exchange (IDX) for the period 2019-2023. In 2023, there were 104 companies listed on the IDX. The sample in this study refers to a group of companies selected based on specific criteria relevant to the research objectives (Sugiyono, 2019). The sampling method used is purposive sampling, where the sample is chosen based on characteristics deemed important for the study. The data analysis technique used in this study involves statistical calculations using the Eviews Serie 9 software. The analysis is conducted using a panel data regression approach. Panel data, also known as pooled data, is a combination of cross-sectional data and time-series data. This approach allows for the observation of multiple variables across various categories over a certain period.

The panel data regression model can be expressed in the following equation:

$$Y_{it} = \alpha + \beta_1 ERC_{it} + \beta_2 IOS_{it} + \beta_3 KA_{it} + \beta_4 PL_{it} + e$$

Explanation:

α	= Constant
$\beta_1 \beta_2 \beta_3 \beta_4$	= Regression Coefficients
ERC	= Earning Response Coefficient
IOS	= Growth Opportunity
KA	= Accounting Conservatism
PL	= Earning Persistence
e	= Error Term
i	= Time Period / Year
t	= Cross Section (Individual)

In addition, in this study, the researcher also uses moderation regression analysis. In a moderation regression model, the equation for the model can be written as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \beta_5 X_1 * Z + \beta_6 X_2 * Z + \beta_6 X_3 * Z + e$$

Explanation:

Y	= Earning Response Coefficient
α	= Constant
β	= Regression coefficients
X_1	= Investment Opportunity Set (IOS)
X_2	= Accounting Conservatism
X_3	= Earnings Persistence
Z	= Income Smoothing
$X_1 * Z$	= Interaction term between IOS and Income Smoothing
$X_2 * Z$	= Interaction term between Accounting Conservatism and Income Smoothing
$X_3 * Z$	= Interaction term between Earnings Persistence and Income Smoothing
e	= Error term

This model aims to examine the interaction effects of Income Smoothing (Z) on the relationships between Investment Opportunity Set (X_1), Accounting Conservatism (X_2), and Earnings Persistence (X_3) with the Earning Response Coefficient (Y).

RESULTS

The finance sector includes bank, insurance, leasing, investment, securities, venture capital, and private equity. Overall, these companies focus on the management and distribution of capital, as well as other financial services. The data used in this study will include annual reports and financial statements from finance companies listed on the Indonesia Stock Exchange (IDX) for the period 2019-2023.

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Table 1. Process and Results of Sample Selection Based on Criteria

No	Criteria	Criteria Violations	Number of companies
1.	Finance companies listed on the Indonesia Stock Exchange (IDX) during the period 2019-2023	0	104
2.	Finance companies that issued complete annual financial reports during the period 2019-2023.	(7)	97
3.	Finance companies that reported profit consecutively during the period 2019-2023	(46)	53
4.	Finance companies that have complete data on the research variables during the period 2019-2023	(22)	31
Number of samples meeting the criteria			31
Research year			5 year
Number of data observations			155 data

Source: Research Data, 2024

An overview of the variables in this study can be presented in table 2 below:

Table 2. Descriptive Statistical Results

	Y_ERC	X1_IOS	X2_KA	X3_PL	Z_IS
Mean	-0.072159	5.233484	0.007097	0.001884	3.398406
Median	-0.112000	1.003000	0.003000	0.002000	1.693000
Maximum	2.500000	225.5730	0.284000	0.064000	41.06500
Minimum	-1.470000	-69.07400	-0.324000	-0.056000	-18.78300
Std. Dev.	0.661204	26.73683	0.101051	0.016447	10.09803
Skewness	0.587761	5.784066	0.207058	-0.029965	2.244972
Kurtosis	4.357179	41.62815	4.206555	6.249313	9.953443
Jarque-Bera	20.82029	10500.96	10.50943	68.21050	442.4603
Probability	0.000030	0.000000	0.005223	0.000000	0.000000
Sum	-11.18470	811.1900	1.100000	0.292000	526.7530
Sum Sq. Dev.	67.32728	110088.2	1.572552	0.041660	15703.40
Observations	155	155	155	155	155

Source: Research Data, 2024

After conducting descriptive statistical analysis, a panel data model selection test is then carried out where data is collected from the same observation unit repeatedly within a certain period of time.

Table 3. Chow Test Results Model 1

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.967611	(45,181)	0.5365
Cross-section Chi-square	49.580631	45	0.2956

Source: Research Data, 2024

The results of the Chow test for model 1 show that the Chow test results indicate a Chi-square value for the cross-section of 0.2956. Based on the hypothesis, if the cross-section probability > 0.05, then H_0 is accepted and H_a is rejected, which means this study uses the Common Effect Model (CEM) approach.

Table 4. Chow Test Results Model 2

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.939806	(45,177)	0.5846

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Cross-section Chi-square	49.277745	45	0.3060
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Source: Research Data, 2024

The results of the Chow test for model 1 show that the Chow test results indicate a Chi-square value for the cross-section of 0.3060. Based on the hypothesis, if the cross-section probability > 0.05 , then H_0 is accepted and H_a is rejected, which means this study uses the Common Effect Model (CEM) approach.

Table 5. Langrage Multiplier Test Results Model 1

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.030760 (0.8608)	0.379360 (0.5379)	0.410120 (0.5219)

Source: Research Data, 2024

The results of the Lagrange Multiplier test for model 1 show that the Cross-section Breusch-Pagan value is 0.8608. Based on the hypothesis, if the cross-section probability > 0.05 , then H_0 is accepted and H_a is rejected, which means this study uses the Common Effect Model (CEM) approach.

Table 6. Langrage Multiplier Test Results Model 2

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.042391 (0.8369)	0.366841 (0.5447)	0.409233 (0.5224)

Source: Research Data, 2024

The results of the Lagrange Multiplier test for model 2 show that the Cross-section Breusch-Pagan value is 0.8369. Based on the hypothesis, if the cross-section probability > 0.05 , then H_0 is accepted and H_a is rejected, which means this study uses the Common Effect Model (CEM) approach.

After conducting the model selection test, the next step is to perform a classical assumption test, which shows that the regression model has passed the classical assumption tests, including the normality test, autocorrelation test, heteroscedasticity test, and multicollinearity test. No signs of classical assumption violations were found in this study. The panel data regression analysis using the common effect model produced the following results:

Table 7. Panel Data Regression Analysis Test Results (Common Effect)

Cross-sections included: 31

Total panel (balanced) observations: 155

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.077029	0.052079	-1.479085	0.1412
X1_IOS	0.004248	0.001970	2.156389	0.0326
X2_KA	0.596233	0.512990	1.162270	0.2470
X3_PL	-11.46259	3.255749	-3.520722	0.0006

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R-squared	0.103036	Mean dependent var	-0.072159
Adjusted R-squared	0.085215	S.D. dependent var	0.661204
S.E. of regression	0.632404	Akaike info criterion	1.946891
Sum squared resid	60.39017	Schwarz criterion	2.025431
Log likelihood	-146.8841	Hannan-Quinn criter.	1.978792
F-statistic	5.781865	Durbin-Watson stat	1.973936
Prob(F-statistic)	0.000907		

Source: Research Data, 2024

Based on the results of the coefficient of determination test (R^2 test) presented in Table 7 above, the Adjusted R-squared value is 0.085215. This means that the independent variables in this study—Investment Opportunity Set, Accounting Conservatism, and Earnings Persistence—affect the Earnings Response Coefficient by 8.52%, while 91.48% is influenced by other variables outside this research model.

Based on the regression equation results presented in Table 7, the calculated F value is 5.781865, and the prob (F-statistic) value is 0.000907, which is less than the significance level ($0.000907 < 0.05$). Therefore, it can be concluded that Investment Opportunity Set, Accounting Conservatism, and Earnings Persistence simultaneously affect the Earnings Response Coefficient. This indicates that the regression equation used to predict the Earnings Response Coefficient is appropriate for this study. Earnings Response Coefficient (ERC) is an important indicator that shows the extent to which earnings information affects stock price changes in the market. According to Fitriah (2020), ERC is used to evaluate the market's response to earnings information, where a higher response indicates better earnings quality. Additionally, Nurcahyani and Ridarmelli (2021) state that Earnings Response Coefficient reflects the market's expectations of a company's future performance.

Conclusions regarding the partial test (t-test) between independent and dependent variables are as follows, by determining the t-table value using the formula $df = (n-k)$, where $155-3 = 152$, the t-table value is 1.65494, with the following results:

1. Investment Opportunity Set

The calculated t value for the Investment Opportunity Set variable is 2.156389, and the t-table value is 1.65494. Then, the calculated t value $>$ t-table value or $2.156389 > 1.65494$, and the probability value for the Investment Opportunity Set is 0.0326, which is smaller than the specified significance level ($0.0326 < 0.05$). Based on this, it can be concluded that the Investment Opportunity Set affects the Earnings Response Coefficient. The Investment Opportunity Set can reflect the extent to which a company has opportunities to generate additional profits through future investments. This research is in line with both agency theory and signaling theory, which explain how information about available investment opportunities can influence investor perceptions and reactions to company earnings. Agency theory suggests that disclosing information about the Investment Opportunity Set can reduce conflicts between management and shareholders, as well as increase investor confidence in management's ability to run the company. This trust can lead to a stronger market response to earnings changes, thereby increasing the Earnings Response Coefficient. Meanwhile, signaling theory explains that a large Investment Opportunity Set sends a positive signal to investors about the company's potential growth and ability to generate profits in the future, which can increase the Earnings Response Coefficient.

2. Accounting Conservatism

The calculated t value for the Accounting Conservatism variable is 1.162270, and the t-table value is 1.65494. Then, the calculated t value $<$ t-table value or $1.162270 < 1.65494$, and the probability value for Accounting Conservatism is 0.2470, which is greater than the specified significance level ($0.2470 > 0.05$). Based on this, it can be concluded that Accounting Conservatism does not affect the Earnings Response Coefficient. The lack of impact of Accounting Conservatism on the Earnings Response Coefficient suggests that the market often focuses more on earnings expectations resulting from the company's operational performance and growth prospects, rather than solely on the conservative principles in earnings recognition. The results of this study are inconsistent with signaling theory, indicating that the signal conveyed by accounting conservatism is not strong enough to influence investor perceptions or that other factors are more dominant in affecting the market's response to earnings information. Based on this test, the lack of impact of conservatism on the Earnings Response Coefficient is due to the market often anticipating the conservative approach in earnings reporting, which limits its effect on investor reactions. Investors are more interested in earnings derived from the company's operational performance rather than how earnings are conservatively

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recognized. Therefore, conservative earnings recognition may not be sufficient to significantly affect the market's response to earnings information.

3. Earnings Persistence

The calculated t value for the Earnings Persistence variable is -3.520722, and the t-table value is 1.65494. Then, the calculated t value < t-table value or $-3.520722 < 1.65494$, and the probability value for Earnings Persistence is 0.0006, which is smaller than the specified significance level ($0.0006 < 0.05$). Based on this, it can be concluded that Earnings Persistence affects the Earnings Response Coefficient with a negative direction. This result is in line with the Efficient Market Hypothesis. In this context, the negative relationship between earnings persistence and ERC indicates that if earnings are very stable, the market has already anticipated this information, and there is no significant reaction to the new earnings announcement. In other words, consistent earnings information is already reflected in stock prices. Therefore, earnings announcements do not provide surprises or new information for investors. This is consistent with the principles of market efficiency, where already existing information does not significantly affect stock prices when announced again. Earnings persistence has a negative effect because the main factor is market expectations for stable earnings. If a company's earnings are very consistent and predictable, investors are likely to already anticipate the earnings announcement. As a result, the new information does not surprise or add significant value, and the earnings announcement does not trigger a significant reaction in stock prices, resulting in a lower Earnings Response Coefficient.

Table 8. Analysis Regression Moderate Test Results (Common Effect)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.045614	0.055747	-0.818225	0.4146
M1	-0.002324	0.002524	-0.920758	0.3587
M2	-0.020363	0.049602	-0.410519	0.6820
M3	0.274363	0.182294	1.505054	0.1345

Source: Research Data, 2024

Based on the table above, the MRA test results show the following calculated values, which can be explained as:

1. The Effect of Income Smoothing in Moderating the Relationship between Investment Opportunity Set and Earnings Response Coefficient

The variable M1, which is the result of $IOS*IS$, has a probability value of 0.3587. This probability value is greater than the significance level of 0.05. This indicates that income smoothing does not moderate the relationship between the Investment Opportunity Set and the Earnings Response Coefficient. Based on this test, income smoothing cannot moderate the relationship between the Investment Opportunity Set and the Earnings Response Coefficient because the goals and focuses of each concept are different. Income smoothing aims to reduce earnings volatility by adjusting the recognition of revenues and expenses, providing a more stable picture of earnings over time. This is more related to how earnings are perceived by stakeholders, not how the market responds to the announced earnings information. Meanwhile, the Earnings Response Coefficient measures stock price sensitivity to earnings changes, which is more influenced by the quality and relevance of earnings information for investors, rather than efforts to smooth earnings fluctuations.

2. The Effect of Income Smoothing in Moderating the Relationship between Accounting Conservatism and Earnings Response Coefficient

The variable M2, which is the result of $KA*IS$, has a probability value of 0.8954. This probability value is greater than the significance level of 0.05. This indicates that income smoothing does not moderate the relationship between accounting conservatism and the Earnings Response Coefficient. Based on this test, income smoothing cannot moderate the relationship between accounting conservatism and the Earnings Response Coefficient because investors have already anticipated that companies applying accounting conservatism tend to report more cautious earnings. As a result, income smoothing is not considered a common practice for reducing earnings volatility, and thus does not provide a significant surprise to investors. Therefore, even if a company adopts accounting conservatism, efforts to smooth earnings do not significantly influence the market's reaction to earnings announcements, and thus do not moderate this relationship.

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3. The Effect of Income Smoothing in Moderating the Relationship between Earnings Persistence and Earnings Response Coefficient

The variable M3, which is the result of $PL \cdot IS$, has a probability value of 0.6820. This probability value is greater than the significance level of 0.05. This indicates that income smoothing does not moderate the relationship between earnings persistence and the Earnings Response Coefficient. Based on this test, income smoothing cannot moderate the relationship between earnings persistence and the Earnings Response Coefficient because investors already view earnings persistence as an indicator of a company's stability and earnings quality, so income smoothing does not provide any significant additional information. Even though a company engages in income smoothing to manage earnings volatility, this may not affect investors' perceptions of how consistent earnings can influence their reaction to earnings announcements. Income smoothing practices may not be significant enough to change how the market responds to stable earnings information, and thus does not serve as a moderating factor in the relationship between earnings persistence and the Earnings Response Coefficient.

CONCLUSION

This study aims to measure the impact of the investment opportunity set, accounting conservatism, and earnings persistence on the earning response coefficient (ERC), moderated by income smoothing, in financial companies listed on the Indonesia Stock Exchange (IDX) during the period 2019-2023. Based on the coefficient of determination (Adjusted R-squared = 0.085215), it shows that the independent variables (investment opportunity set, accounting conservatism, and earnings persistence) affect the earning response coefficient by 8.52%, with the remaining 91.42% influenced by other variables outside this model.

The F-statistic test shows that investment opportunity set, accounting conservatism, and earnings persistence simultaneously affect the earning response coefficient. These factors influence market reactions to earnings announcements. Investment Opportunity Set (IOS) reflects investment opportunities that can increase market expectations of future earnings, which can boost the market's response to reported earnings. Accounting conservatism leads to cautious earnings recognition, signaling the reliability of earnings, although its effect is limited if the market has already anticipated this approach. Earnings persistence indicates stable earnings that are expected to enhance earnings quality, but if earnings are stable, the market anticipates this and no major surprises occur in stock prices. Agency theory, signaling theory, and the efficient market hypothesis support the idea that these factors influence how the market responds to earnings information.

Investment Opportunity Set affects the Earnings Response Coefficient. IOS reflects the extent to which a company can generate additional profits through future investments. This study aligns with agency theory and signaling theory, which explain how information about investment opportunities influences investor perceptions of the company's earnings. Agency theory suggests that disclosing IOS information can reduce conflicts between management and shareholders, boosting investor confidence in management and enhancing the market response to earnings changes, thus increasing the Earnings Response Coefficient (ERC). Signaling theory explains that a large IOS sends a positive signal to investors about the company's potential for growth and future profitability, which can also increase ERC. Therefore, both theories support the idea that IOS influences market reactions to earnings information.

Accounting conservatism does not affect the Earnings Response Coefficient. The lack of impact of accounting conservatism on ERC indicates that the market tends to focus more on earnings expectations derived from the company's operational performance and growth prospects, rather than conservative earnings recognition. This finding contradicts signaling theory, which suggests that the signal conveyed by accounting conservatism is not strong enough to influence investor perceptions. The market often anticipates a conservative approach in earnings reporting, limiting its impact on investor reactions. As a result, investors prioritize earnings from operational performance over conservative earnings recognition, meaning that conservative earnings recognition does not significantly influence market responses to earnings information.

Earnings persistence negatively affects the Earnings Response Coefficient. This result aligns with the Efficient Market Hypothesis. The negative relationship between earnings persistence and ERC suggests that when earnings are stable, the market has already anticipated this information, and new earnings announcements do not trigger significant reactions. Consistent earnings are already reflected in stock prices, meaning earnings announcements do not surprise investors. Therefore, stable earnings lead to a negative effect on ERC, as the market expects stable earnings and no major reaction to earnings announcements.

Income smoothing does not moderate the relationship between the investment opportunity set, accounting conservatism, and earnings persistence on the earning response coefficient. This is because income smoothing has a different focus and objective compared to the factors measured in ERC. Income smoothing aims to reduce earnings volatility by adjusting revenue and expense recognition, making earnings appear more stable. However, investors are more interested in the quality

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and relevance of earnings information than in earnings fluctuations that have been smoothed, as they are more focused on the company's actual operational performance. Meanwhile, investment opportunity set, accounting conservatism, and earnings persistence are directly related to the market's expectations for long-term growth and stability. Income smoothing only changes the appearance of earnings without affecting the fundamental information investors use to assess company performance. Therefore, while income smoothing can reduce earnings volatility, it is not significant enough to moderate the relationship between these factors and market reactions to earnings announcements.

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