

The Effect of Profitability, Leverage, and Firm Size on ERC in the Industrials Sector on the IDX.

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Abstract

Abstract. Effect of Profitability, Leverage, and Company Size on Earnings Response Coefficient. The purpose of this study is to empirically examine the effect of profitability, leverage, and firm size on the earnings response coefficient by using accounting conservatism. This study uses secondary data on Industrial companies listed on the IDX and which generate profits in 2019-2021. The sampling technique used purposive sampling method and obtained as many as 22 companies with an observation period of 3 years. The data analysis technique used is multiple linear regression analysis. The results of the analysis show that profitability has no effect on the earnings response coefficient and firm size does not have a significant effect on the earnings response coefficient, but leverage has a positive effect on the earnings response coefficient.

Keywords: *earnings response coefficient, profitability, leverage, firm size.*

INTRODUCTION

Financial statements are a structured presentation of the financial position and financial performance of an entity. Financial reports aim to provide information regarding financial position, performance, and changes in financial position that are useful for most users in making economic decisions (Martani, et al, 2014: 9). Parties



entitled to obtain company financial information are parties with an interest in the development of a company (stakeholders).

Market reactions are economic decisions made by investors based on information obtained from financial reports which are generally reflected in the actions of market participants. When announcing earnings, the market reaction indicates a significant change in the market price (stock return) of certain companies. What is meant by a striking change in return price is that there is a significant difference between the actual return and the expected return. As a basis for decision making, profit (earnings) is a performance measure that indicates success for a company, which is usually used by investors and creditors. Profit is also a concern for certain parties in assessing the performance and accountability of management in managing resources, and can be used to estimate the prospects of the company in the future. Announcement of earnings in the capital market causes the market to react which can be seen from the movement of stocks and investors in making investments. Profit has limitations that are influenced by calculation assumptions and the possibility of manipulation by company management, so other information is needed besides earnings to predict company stock returns, namely the earnings response coefficient (Kurnia and Sufiyati 2015).

The capital market is influenced by events that exist in a country. Events that have information content can cause the market to react when it receives information from these events. Events that occur may contain information that is absorbed by the market and will be used by investors as a basis for making investment strategies or decisions. Events that occur can also affect market reactions if the information obtained is relevant information so that it can influence decision making by investors to obtain maximum profits. Investors in making their investment strategy are required to be aware of important economic and non-economic events which include political, social, cultural events, and those that can disrupt national stability such as landslides, Indonesia as one of the countries affected by the COVID-19 virus has made the state apparatus to urge the public to carry out physical distancing, work, study and worship at home, to the prohibition of gathering in crowds to prevent the virus from spreading further (cnbc.com).

The Covid-19 pandemic has had an impact on the Indonesian economy. Various industrial sectors were affected, such as the financial sector, tourism sector, manufacturing sector, food and beverage sector. The financial sector has been affected long before COVID-19 attacked Indonesia. The sell-off on the stock exchange and bond market took place since February, and became more massive in March when the first case of Covid was announced in Indonesia and foreign funds were still leaving the Indonesian market (Kartikaningsih, 2020).



The results of Baumöhl et al. (2020) show that systemic risk among banks worldwide was particularly high during the COVID-19 pandemic. The development of the COVID-19 virus is external information that can indirectly impact the purchase of shares, especially on the Indonesia Stock Exchange, especially Industrial Sector Companies. The COVID-19 event increased the volatility of the stock market according to the results of the research by Sharif et al. (2020). Industrial Sector Companies have high growth and transaction value, but the COVID-19 pandemic has impacted on purchases of the Industrial Sector which have also declined, for example the shares of PT Sky Energy Indonesia Tbk noted that PT Sky Energy Indonesia Tbk (JSKY) only earned a net profit of IDR 481.54 million in the first quarter (Q1) of 2021,

In the recently released financial report, the decline in JSKY's net profit was affected by the company's net sales performance in Q1 2021, which fell 36% yoy to IDR 57.18 billion. Even though in the same period last year, the issuer that produced solar cells was able to record sales of up to IDR 89.68 billion. As details, the local market contributed Rp. 14.06 billion to JSKY's sales. Then the remaining IDR 43.12 billion was export sales. Compared to the same period last year, JSKY's sales in the local market decreased by 54% and in the export market fell by 30%. Sales of JSKY battery products contributed IDR 31.31 billion. Then solar panel products contributed IDR 25.79 billion, solar system inverters IDR 7.53 million, and other supporting products IDR 79.74 million. According to idnfinancials.com data, JSKY's total assets were recorded at IDR 492.04 billion at the end of March 2021 yesterday. Meanwhile the company has cash and cash equivalents of IDR 2.9 billion.

Profitability ratios are used to measure a company's ability to generate profits (profitability) at the level of sales, assets, and share capital (Pamungkas, 2014). Hasanzade, et al (2013) stated that profitability refers to a company's ability to make a profit, where profitability is the end result of company programs and financial decisions. The relationship between profitability and Earnings Response Coefficient (ERC) can be said that if the company's profitability is high, the profits generated by the company will increase and will further influence investors to invest their capital (Aryanti & Sisdyani, 2016).

These results are supported by the results of research conducted by (Herdirinandasari, 2016). Profitability has a positive influence on the Earnings Response Coefficient (ERC), while Nyoman Sutrisna & I Ketut, (2019) has a negative influence. On the other hand, with research others, that profitability has no effect on Earnings Response Coefficient (ERC).

The debt ratio (leverage) is one way to measure the proportion of debt that will be used to finance its assets. Companies that have a high level of leverage mean that these companies use debt or other obligations in financing assets and are at higher



risk than companies that have a low level of leverage (Puspitarini, 2016). The greater the company's debt, the greater the financial leverage. Companies with high leverage will make investors less confident in the profits published by the company because investors assume that the company will prioritize paying debts to debtholders rather than paying dividends.

The high level of leverage causes investors to be afraid to invest in these companies, because investors do not want to take big risks. So that when the announcement of earnings results in a relatively low market response. This relatively low market response will reflect that a company's profits are lacking or not of good quality (Dewi & Putra, 2017). Puspitarini (2016) suggests the impact on investors' lack of confidence in company profits as seen from the level of debt will affect the level of ERC. The greater the level of leverage, the lower the quality of a company's earnings, because of ERC will decrease if the leverage is high. Strengthened by the results of his research Leny Suharja, 2019) that leverage has a negative effect on the Earnings Response Coefficient (ERC). However, (Yuliana Putri, 2020) has a positive influence on the Earnings Response Coefficient (ERC). In contrast to other studies that have Leverage results do not affect the Earnings Response Coefficient(ERC). According to Solechan (2009)

Company size or size is a description of the size of a company which is indicated by the amount of assets owned. Large companies will find it easier to get loans or capital because investors will be more interested in companies whose growth and returns are higher than small companies. The size of the company in this study is a reflection of the size of the company which appears in the total value of the company's assets. With the larger the size of the company, there is a tendency for more investors to pay attention to the company.

This is because large companies tend to have more stable conditions. The size of the company can be reflected in the total value of the company's assets. There are clear differences between large companies and small companies, especially in the published information content. The more information available will make it easier for investors to analyze and make decisions so that what is obtained will be positive as indicated by an increase in the ERC value (Hariati, 2017). Jaya & Apriwenni (2015) revealed that large companies have complex company activities, disclose more information to the public,

Strengthened by research by (Okalesa, Dicky Pratama, & Mimelientesa, 2022) that company size has a positive effect on the Earnings Response Coefficient (ERC). Meanwhile (Yossi Diantimala, 2008) Company size has a negative influence on the Earnings Response Coefficient (ERC). In contrast to other studies which have the results of Firm Size has no effect on Earnings Response Coefficient (ERC). Based on



the background, the phenomena that occur, and the differences in the results of the research above, the authors are interested in conducting research with the title: "The Influence of Profitability, Leverage and Company Size on Earnings Response Coefficient (ERC) in Industrial Sector Companies on the Indonesia Stock Exchange for the period 2019-2021 ."

RESEARCH METHODS

Research Approach

In this study, researchers used a quantitative approach. According to Sugiyono (2009: 14) a quantitative approach is a research method based on the philosophy of positivism, which is used to research certain populations or samples, which are generally taken randomly, and data is collected using research instruments, then analyzed quantitatively/statistically with the purpose of testing the hypothesis that has been set.

Dependent Variable

According to Sugiyono (2011), The definition of the dependent or dependent variable is the variable that is affected or becomes the result, because of the independent variables. The dependent variable is very dependent on the independent variable. In this study the dependent variable is the Earnings Response Coefficient (ERC), which is symbolized by the letter Y. Earnings Response Coefficient is the slope coefficient on profit. The earnings response coefficient measures the strength of stock prices in responding to accounting earnings. The accounting profit coefficient can show the quality of the company's earnings. (Murwaningsari, 2008)

Independent Variables (Independent)

According to Business Dictionary, The independent variable is a factor or phenomenon that causes or influences other related factors or phenomena called the dependent or dependent variable. Yusuf (2014: 109) explained that independent variables are variables that influence, explain, explain other variables. In this study there are three independent variables used including: ROA as (X1), DAR as (X2), FirmSize as (X3). Here is the description:

Return on assets as X1 is the ratio used to measure profitability. High ROA reflects the return generated on the rupiah invested by investors getting better. ROA can be measured by the formula:

$$ROA = \frac{\text{net profit}}{\text{total asset}}$$



Debt to equity ratio is the ratio of total assets owned by a company to total debt. Debt to equity ratio can be measured by the formula:

$$DAR = \frac{\text{Total Liability}}{\text{total Asset}}$$

Company size (size) is the size of the company can be measured by the total assets or the size of the company's assets by using the calculation of the logarithmic value of total assets. Company size can be measured by the formula:

$$\text{Firm Size} = \frac{\text{Ln}}{\text{total asset}}$$

Earnings Response Coefficient (ERC) is form of measurement of information in profit. Does the profit information reflect the actual situation, so that it can be used in making decisions, and can also increase the usefulness of decisions in financial reporting.

ERC can be measured by the formula:

$$ERC = CARI.t \alpha_0 + \alpha_1 UEit + \varepsilon$$

Information :

$CARI.t$ = Cumulative abnormal return of the company obtained from the accumulation of AR at

intervals from day t-3 to day t+3

α_0 = Constant

α_1 = Earning Response Coefficient

$UEit$ = Unexpected earnings of company i in period t

ε = standard error

Definition and Measurement of Research Variables

The following is an operational table in the Independent variable (X) ROA, DAR, and Size (Y) Earnings Response Coefficient.



Table 1 Operational Definition and Variable measurement

Variable	Variable Definitions	Measurement	Scale
Return on Assets (X1)	Return on Assets (ROA) is the ratio used to measure profitability.	$\frac{Net\ Profit}{total\ asset}$	Ratio
Debt to Asset Ratio (X2)	Debt to equity ratio is the ratio used to measure solvency level	$\frac{Total\ Liability}{total\ asset}$	Ratio
Firm Size (X3)	A measure, a variable scale that describes the size of the company	$\frac{ln}{total\ asset}$	Ratio
Earnings Response Coefficient (Y)	measure the magnitude of the power of stock prices in response to accounting profit	$ERC = \alpha_0 + \alpha_1 UE_{it} + \varepsilon$	Ratio

Source : (Herdirinandasari, 2016)

Sampling Method

According to Sugiyono (1997: 57) The population is a generalization area consisting of objects/subjects that have certain quantities and characteristics determined by the researcher to be studied and then drawn conclusions. The population used in this study are industrial sector companies in Indonesia that are listed on the Indonesia Stock Exchange (IDX) during 2019-2021.

According to Siyoto et al (2015), a sample is part of the number and characteristics possessed by the population, or a small part of the population members taken according to certain procedures so that they can represent the population. The population in this study are companies that are included in the industrial sector with a total of 55 companies. Of the 55 companies in the industrial sector, a sample must be selected. The sample used in this study was obtained by purposive sampling method with the following criteria:

1. Industrial sector companies that are consistently listed on the IDX for the 2019-2021 period.
2. Industrial sector companies that have published annual financial reports and have been audited for the 2019-2021 period.
3. Industrial sector companies whose financial reports are from 2019-2021 are making a profit.



DISCUSSION**Description of Research Object**

The objects in this study are industrial companies in Indonesia that are listed on the IDX.

Descriptive Statistical Analysis**Table 2. Analisis Descriptive**

	Means	Median	Max.	Min.	std. Dev	Observations
ERC	9.455621	10.94350	98.79300	-91.34700	44.77441	66
ROA	0.0082855	0.069250	0.363600	0.000400	0.072887	66
DAR	0.730232	0.413500	10.50700	0.063000	1.746918	66
SIZE	24.09424	26.50000	29.17000	12.73000	4.880941	66

Source: evIEWS output 10, 2022

In the table above, it can be explained that the amount of data (observations) used in this study was 66 data. The mean is the average of the data, obtained by adding up all the data and dividing it by the number of data (Winarno, 2015: 3.9). The largest mean value is experienced by the SIZE variable of 24.09424 and the smallest is experienced by the ROA variable of 0.0082855.

The median is the middle value (the average of the two middle values if the data is even) if the data is sorted from smallest to largest (Winarno, 2015: 3.9). The biggest median experienced by the SIZE variable is 26.50000, while the ROA variable is 0.069250.

Maximum is the large value of the data (Winarno, 2015: 3.9). The biggest maximum is experienced by the ERC variable of 98.79300, while the smallest maximum is experienced by the ROA variable of 0.363600.

The minimum is the smallest value (Winarno 2015:3.9). The biggest minimum was experienced by the SIZE variable of 12.73000, while the smallest minimum value was experienced by the ERC and ROA variables of -91.34700 and 0.000400.



std. Dev is a measure of distribution or distribution of data (winarno 2015: 3.10). The largest standard deviation value is experienced by the ERC variable of 44.77441 which means that this variable has a higher level of risk of experiencing changes compared to other variables. While the ROA variable is 0.072887 which indicates that the ROA variable during the study period was not too volatile and experienced changes.

Selection of Model Estimation Model

Chow test

Table 3. Chow Test

Redundant Fixed

Effects Tests

Equation: EQ01

Test cross-section fixed effects

Effect Test	Statistics	df	Prob.
	0.77639(21.41		
Cross-section F	3	)	0.7293
Chi-square cross-sections	22.0969	95	21 0.3939

Source: output eviews 10, 2022

Based on the calculation results in the table above the probability values for the cross-section F (0.7293) and cross-section chi-square (0.0000) < α (0.05) it can be concluded that the common effect model is more appropriate to use than the fixed effect model.

Hausman test

Table 4. Hausman test

Correlated Random Effects -

Hausman Test

Equation: EQ01

Test cross-section random effects

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
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Random cross-sections	7.624757	3	0.0564
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Source: Output eviws 10, 2022

Based on the results of the calculation table above the Probability (Prob.) Cross-section random $0.0564 > \alpha (0.05)$, it can be concluded that the random effect model (REM) is more appropriate to use than the fixed effect model (FEM).

Lagrange Multiplier Test

Table 5. lagrange Multiplier Test

Lagrange multiplier (LM) test for panel data

Date: 10/31/22 Time: 12:10

Sample: 2019 2021

Total panel observations: 66

probability in()

Null (no rand. effect)	Cross-section	period	Both
Alternatives	One-sided	One-sided	
		8.48566	
Breusch-Pagan	3.852997 (0.0497)	4 (0.0036)	12.33866 (0.0004)
		2.91301	
Honda	-1.962905 (0.9752)	6 (0.0018)	0.671830 (0.2508)
		2.91301	
King-Wu	-1.962905 (0.9752)	6 (0.0018)	2.204654 (0.0137)
GM	--	--	8.485664 (0.0054)

Source: Output eviws 10, 2022

Based on the calculation results in the table above, the Cross-section Breusch-pagan probability value is $0.0497 < \alpha (0.05)$, it can be concluded that the random effect model (REM) is more appropriate to use than the common effect model (CEM).

Conclusion Panel Data Regression Model Used

Table 6. conclusion of panel data regression

NO	Method	Testing	Results
1	Chow test	CEM vs FEM	CEM
2	Hausman test	REM vs FEM	REM
3	Lagrange Multiplier Test	CEM vs REM	REM

Based on the results of the three tests that have been carried out, it can be concluded that the panel data regression model that will be used in hypothesis testing and the panel data equation is the random effect model (REM).

Hypothesis test

Model Feasibility Test (F Test)

Table 7. F test

R-squared	0.192827
Adjusted R-squared	0.153770
SE of regression	41.18831
Sum squared residue	105181.6
Likelihood logs	-336.9850
F-statistics	4.937100
Prob(F-statistic)	0.003872

Source: evIEWS output 2022

In the table above it can be seen that the value of the F-statistic is 4.937100, while the F table with a level of $\alpha = 5\%$, $df_1(k-1) = 3$ and $df_2(nk) = 66$ obtained an F table value of 2.75297. Thus the F-statistic ($4.937100 > F \text{ Table } (2.75297)$) and the Prob(F-statistic) value of $0.003872 < 0.05$, it can be concluded that H_0 is

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accepted, so it is thus concluded that the independent variables in this study are consisting of ROA, DAR, and SIZE together have an influence on the Earnings Response Coefficient (ERC).

The table above shows that the adjusted R-squared value is 0.153770, meaning that the variation in changes in the ups and downs of the Earnings Response Coefficient (ERC) can be explained by ROA, DAR and SIZE of 15.3%, while the remaining 84.7% is explained by other variables. not examined in this study

Partial Hypothesis Test (T test)

Table 8. T Test

Dependent Variable: ERC

Method: Panel Least

Squares

Date: 11/01/22 Time: 00:11

Sample: 2019 2021

Period included: 3

Cross-sections included:

22

Total panel (balanced) observations:

66

Variable	coefficie s	ntstd. Error	t-Statistics	Prob.
C	67.6628 4	25.9840 5	2.604014	0.0115
ROA	166.906 2	70.9657 4	-2.351927	0.0219
DAR	7.90134 6	2.96860 4	2.661637	0.0099
SIZE	2.08133 1	1.05755 2	-1.968066	0.0535

Source: evIEWS output 10, 2022

The table above shows that:



1. Return on Assets (ROA) t-statistic value of -2.351927, while t Table with a level of $\alpha = 5\%$, df (nk) = 66 obtained a t Table value of 1.998972. Thus t-statistic ROA (-2.351927) < t table (1.998972) and prob. value 0.0219 > 0.05. So it can be concluded that the variable return on assets in this study has no effect on the Earnings Response Coefficient (ERC).
2. The t-statistic Debt to Asset (DAR) value is 2.661637, while t table with a level of $\alpha = 5\%$, df (nk) = 66 gets a t table value of 1.998972. Thus the t-statistic DAR (2.661637) > t table (1.998972) and the prob value. 0.0099 < 0.05. So it can be concluded that the DAR variable in this study has an influence on the Earnings Response Coefficient (ERC). The regression coefficient value of the DAR variable is 7.901346. This illustrates that the DAR variable has a positive effect on the Earnings Response Coefficient (ERC). Thus, every increase of one unit of the DAR variable will increase the value of the Earnings Response Coefficient (ERC) variable (Constant = 67.66284) by 7.901346.
3. t-value statistics company size (SIZE) is -1.968066, while t table with a level of $\alpha = 5\%$, df (nk) = 66 obtained t table value of 1.998972. Thus t-statistic SIZE (-1.968066) < t Table (1.998972) and prob values. 0.0535 < 0.05. So it can be concluded that the SIZE variable in this study has no effect on the Earnings Response Coefficient (ERC).

CONCLUSION

Based on the results of the analysis that has been done, it can be concluded that profitability has no effect, leverage has a positive effect, firm size has no effect on the earnings response coefficient. Firm size, leverage and profitability simultaneously affect the earnings response coefficient. For further research, the researcher suggests adding other variables that have an influence on ERC apart from the variables used in this study. Future research can also use other company samples that are more specific and have longer research years. For company management who want to increase the company's ERC value, it is necessary to pay attention to the proportion of profitability which has a negative effect and leverage which has a positive effect on ERC.

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