
THE RELATIONSHIP BETWEEN CR, DER, AND ROA WITH STOCK RETURNS: VECM APPROACH

Rika Kartika¹ & Encep Saefullah^{2*}

^{1,2}Universitas Bina Bangsa, Serang, Indonesia

*E-mail: encepsaefullah82@gmail.com

Abstract

This study aims to determine the relationship between financial ratios and stock returns of food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the long and short term. The financial ratios studied are: Current Ratio (CR), Debt to Equity Ratio (DER) and Return on Asset (ROA). The population in this study is food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2017-2022 period. The research sample was 23 food and beverage companies obtained by purposive sampling technique. The data collection technique used is secondary analysis. The data analysis method used in this study is the Vector Error Correction Model (VECM). Based on the results of calculations in the short term, it is known that the t-statistical values in the variables CR are $0.29261 < 1.977826$, DER ($-0.09993 > -1.977826$) and ROA ($-2.46756 < -1.977826$). While in the long term known t-statistical values in variables CR and ROA ($0.28163, 0.95621 < 1.977826$) and DER ($2.04780 > 1.977826$). For the granger causality test, the results of the prob value were found. In the relationship between CR and DER ($0.0458 < 0.05$) and the relationship between CR and ROA with prob values. $0.0170 < 0.05$. The results showed that in the short term, there was no significant influence between CR and DER variables on stock returns, while ROA had a significant effect on stock returns. In the long run, the variables CR and ROA do not have a significant influence on stock returns, while the DER variables have a significant influence on stock returns. The results of the granger causality test show a one-way causality relationship in the variables CR with ROA, and CR with DER. However, no significant causality relationship was found between the other variables. The research findings provide benefits for investors who wish to invest in food and beverage manufacturing companies listed on the IDX, by making more informed investment decisions and reducing the risk of possible losses.

Keywords: Stock return, current ratio, debt to equity ratio, return on assets.

Abstrak

Penelitian ini bertujuan untuk mengetahui hubungan rasio keuangan dengan *return* saham perusahaan manufaktur sektor makanan dan minuman yang terdaftar di Bursa Efek Indonesia (BEI) pada jangka panjang dan jangka pendek. Rasio keuangan yang diteliti yaitu: *Current Ratio* (CR), *Debt to Equity Ratio* (DER) dan *Return On Asset* (ROA). Populasi dalam penelitian ini adalah perusahaan manufaktur sektor makanan dan minuman yang terdaftar di Bursa Efek Indonesia (BEI) selama periode 2017-2022. Sampel penelitian sebanyak 23 perusahaan makanan dan minuman yang diperoleh dengan teknik *purposive sampling*. Teknik pengumpulan data yang digunakan adalah analisis sekunder. Metode analisis data yang digunakan dalam penelitian ini adalah *Vector Error Correction Model* (VECM). Berdasarkan hasil perhitungan pada jangka pendek diketahui nilai t-statistik pada variabel CR adalah $0.29261 < 1.977826$, DER ($-0.09993 > -1.977826$) dan ROA ($-2.46756 < -1.977826$). Sedangkan pada jangka panjang diketahui nilai t-statistik pada variabel CR dan ROA ($0.28163, 0.95621 < 1.977826$) dan DER ($2.04780 > 1.977826$). Untuk uji kausalitas granger ditemukan hasil nilai prob. Dalam hubungan antara CR dan DER ($0.0458 < 0.05$) dan hubungan antara CR dan ROA dengan nilai prob. Sebesar $0.0170 < 0.05$. Hasil penelitian menunjukkan bahwa hubungan dalam jangka pendek, tidak terdapat pengaruh yang signifikan antara variabel CR dan DER pada *return* saham, sedangkan ROA berpengaruh signifikan terhadap *return* saham. Pada jangka panjang variabel CR dan ROA tidak memiliki pengaruh yang signifikan pada *return* saham, sedangkan variabel DER memiliki pengaruh signifikan pada *return* saham. Hasil uji kausalitas granger menunjukkan adanya hubungan kausalitas satu arah pada variabel CR dengan ROA, serta CR dengan DER. Namun, tidak ditemukan hubungan kausalitas yang signifikan antara variabel lainnya. Temuan penelitian memberikan keuntungan bagi investor yang ingin berinvestasi dalam perusahaan manufaktur sektor makanan dan minuman yang terdaftar di BEI, dengan membuat keputusan investasi yang lebih terinformasi dan mengurangi risiko kerugian yang mungkin terjadi.

Kata-kata kunci: *Return saham, current ratio, debt to equity ratio, return on asset*

INTRODUCTION

The capital market has an important role and benefit in a country's economy because it creates facilities for industrial needs or investors in meeting the demand and supply of capital (Zelfi et al., 2023). Many industries and companies use this institution as a medium to absorb investment and a medium to strengthen their financial position (Siregar, et al., 2022). These companies are one of the production agents, which nationally will form the *gross domestic product* (GDP) (Purba, 2018). Capital market development will support an increase in GDP (Leene, 2017). In

other words, the development of the capital market will also encourage the economic progress of a country (Chinn & Ito, 2006). Stock return is the result obtained from investing funds (Nadyayani & Suarjaya, 2021) that have been invested and can be enjoyed by investors. Investors need to realize that in addition to being able to make a profit, there is also the possibility of experiencing losses (Hobfoll & Freedy, 2017).

Ratio is a comparison tool used to compare one amount with another, so as to provide an idea of the relationship between the two (Adedeji, 2014). Financial ratios have an important role in assessing company performance, because they can provide information about the financial condition of a company (Rashid, 2021). Financial ratios are one of the factors considered by potential investors in evaluating financial performance before investing or funding in a company. In assessing a company's financial performance, there are five types of ratio analysis that are commonly used, namely liquidity ratio, activity ratio, solvency ratio, profitability ratio and market ratio (Noviyana, et al., 2023). In this study, liquidity ratio, solvency ratio and profitability ratio were used as analysis indicators.

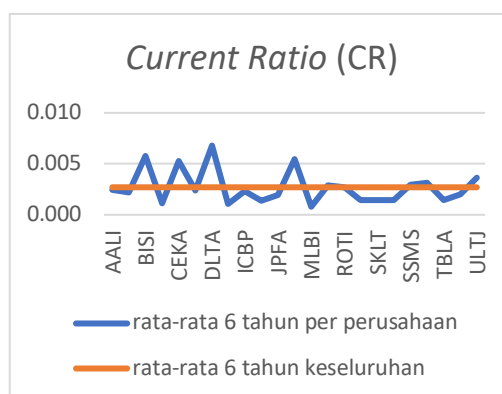


Figure 1. Current Ratio

The highest average CR was recorded in DLTA companies with a value of 6.793, while the lowest average CR was found in MLBI companies with a value of 0.788. Overall, the average CR from 2017 to 2022 for the entire company was 2,697.

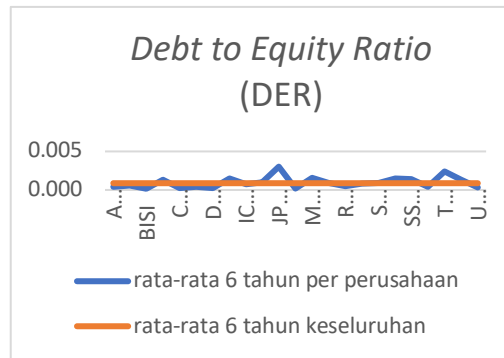


Figure 2. Debt to Equity Ratio

It can be seen the change in *Debt to Equity Ratio* (DER) from 2017 to 2022 in 23 food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange (IDX). Can be seen the change in *Return on Assets* (ROA) from 2017 to 2022 in 23 food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange (IDX). Overall, the average ROA from 2017 to 2022 for the entire company was 0.095.

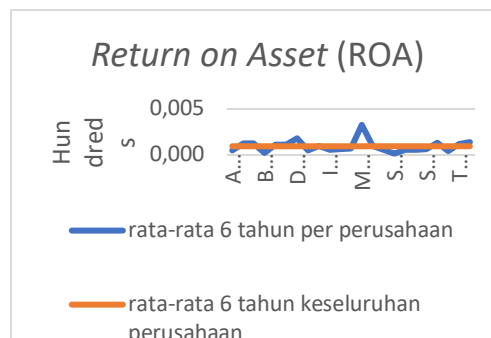


Figure 3. Return On Asset

Based on the background and phenomena that have been explained, it can be concluded that CR, DER and ROA have an impact on stock returns, but it is not seen how the long-term and short-term balance. Therefore, the purpose of this study is to determine the long-term relationship and short-term relationship between Current Ratio (X1), *Debt to Equity Ratio* (X2) and *Return on Assets* (X3) with Stock Return (Y).

LITERATUR REVIEW

Stock Return

Stock return is the level of profit expected or obtained from an investment in stocks or a group of stocks in a certain period. This includes the profit or loss

received by investors during the period. Stock returns can be in the form of dividends, which are part of the company's profits distributed to investors in the form of cash, shares, or property, as well as capital gains which are the difference between the purchase price of shares and their selling price (Hermuningsih, Rahmawati, & Mujino, 2018).

Stock returns are a measure used to evaluate the overall level of return of a company. Investors are very interested in stock returns and try to maximize them. Stock returns also allow investors to compare the rate of return of one company with another. Stock returns play an important role for investors or capital owners, because they are the expectation of future profits which are compensation for the time and risk associated with the investment they make. Demand and supply from investors will affect the company's stock price. If the stock price is high, then the return that will be obtained by investors will also be high. A high rate of return will increase the profit and income obtained by investors in investment activities (Devi & Artini 2019). Stock returns are the results or profits expected or obtained from investing in stocks or a group of stocks in a certain period. This includes dividends received by investors as part of the company's profits distributed in the form of cash, stocks or other assets, capital gains which are the difference between the purchase price of the stock and its selling price. Stock returns are also defined as the profits enjoyed by investors from their stock investments. The return has two components, namely current income and capital gains. The form of current income is in the form of profits obtained through periodic payments in the form of dividends as a result of the company's fundamental performance. Meanwhile, capital gains are in the form of profits received due to the difference between the selling price and the purchase price of the stock. The amount of capital gain for a stock will be positive if the selling price and the shares owned are higher than the purchase price.

According to Sulistyaningsih (2016), returns are the results obtained from investment activities, generally investing to get a return (rate of return) in return for the funds that have been invested and the willingness to bear the risks in the investment. According to Abbas, et al., (2022), stock returns are the results obtained by investors from their investment activities. Returns are divided into two, namely realizable returns (actual returns) and expected returns (those expected by investors).

Current Ratio

According to Innawati (2019), current ratio is the comparison between the amount of current assets and current liabilities, this ratio shows that the value of current assets (which can immediately be converted into cash) is several times the short-term debt. According to Ratnasari (2020), CR is the most common measure

used to determine the ability to meet short-term obligations, because this ratio shows how far the demands of short-term creditors are met by assets that are estimated to become cash in the same period as the debt maturity. Hasanah & Sulistiyo (2021), current ratio is a ratio to measure the company's ability to pay short-term obligations or debts that are due immediately when they are collected in full. Purnomo & Basir (2023), CR is used to determine the extent to which the company's current assets are used to pay off current debts (liabilities) that will mature.

Debt to Equity Ratio

According to Febriana, et al (2022), debt to equity ratio is a comparison ratio used to assess debt with equity. This ratio is sought by comparing all debts, including current debt with all equity. This ratio is useful for knowing the amount of funds provided by borrowers with company owners. In other words, this ratio functions to find out every rupiah of own capital that is used as collateral for debt. According to Andhani (2019), DER is one of the leverage or solvency ratios. The solvency ratio is a ratio to determine the company's ability to pay obligations if the company is liquidated. This ratio is also called the leverage ratio, namely assessing the company's limitations in borrowing money.

Return On Asset

ROA is one of the financial indicators often used to assess company performance, and companies with high ROA are considered attractive to investors. ROA also shows the level of efficiency in managing company assets. Companies with high ROA show that they are effective in utilizing assets to generate net profit after tax. Generally, ROA is considered good and more than 2%. The greater the ROA of a company, the greater the level of profit achieved by the company. According to Wesso, et al (2022)Weso (2022), Return On Asset (ROA) is a ratio that shows the results (return) on the amount of assets used in the company. ROA provides a better measure of a company's profitability because it shows the effectiveness of management in using assets to generate income. Saputra (2022), ROA can also be used as a benchmark if management wants to evaluate how well the company has used its funds, this is indicated by the greater the level of ROA obtained, the greater the level of profit obtained by the company in terms of asset use.

The hypothesis of this study is as follows:

H1: there is a long-term relationship between CR and stock return

H2: there is a long-term relationship between DER and stock returns

H3: there is a long-term relationship between ROA and stock return

H4: there is a short-term equilibrium relationship between CR and stock return

H5: there is a short-term equilibrium relationship between DER and stock returns

- H6: there is a short-term equilibrium relationship between ROA and stock return
H7: there is a one-way causality relationship between CR and stock return
H8: there is a one-way causality relationship between stock returns and CR
H9: there is a one-way causality relationship between DER and stock return
H10: there is a one-way causality relationship between stock returns and DER
H11: there is a one-way causality relationship between ROA and stock return
H12: there is a one-way causality relationship between stock return and ROA
H13: there is a two-way causality relationship between CR and stock returns
H14: there is a two-way causality relationship between stock returns and CR
H15: there is a two-way causality relationship between DER and stock returns
H16: there is a two-way causality relationship between stock returns and DER
H17: there is a two-way causality relationship between ROA and stock return
H18: there is a two-way causality relationship between stock return and ROA

RESEARCH METHOD

Type of Research

The method used is a quantitative method with a VECM approach. The data used in this study is secondary data, which is in the form of financial statements of food and beverage sector companies on the Indonesia Stock Exchange. The population in this study amounted to 84 food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange and sampling was based on certain considerations and criteria.

Table 1. Company Sample

NO	CODE	Company
1	MIND	Budi Strach &; Sweetener Tbk.
2	SSMS	Sawit Sumber Mas Sarana Tbk.
3	JPFA	Japfa Comfeed Indonesia Tbk.
4	TBLA	Tunas Baru Lampung Tbk.
5	SMAR	SMART Tbk.
6	DSNG	Dharma Satya Nusantara Tbk.
7	AALI	Astra Argo Lestari Tbk.
8	SKLT	Sekar Bumi Tbk.
9	ADES	Akasha Wira International Tbk.
10	BREAD	Nippon Indosari Carpindo Tbk.
11	BISI	Bisi International Tbk.
12	CEKA	Wilmar Cahaya Indonesia Tbk.
13	CPIN	Chareon Pokphand Indonesia Tbk.
14	DLTA	Delta Djakarta Tbk.

15	ICBP	Indofood CBP Sukses Makmur Tbk.
16	INDF	Indofood Sukses Mkamur Tbk.
17	LSIP	PP London Sumatra Indonesia Tbk.
18	MYOR	Mayora Indah Tbk.
19	MLBI	Multi Bintang Indonesia Tbk.
20	SKBM	Sekar Bumu Tbk.
21	STTP	Siantar TOP Tbk.
22	TGKA	Tigaraksa Satria Tbk.
23	ULTJ	Widodo Makmur Poultry Tbk.

Data Analysis Techniques

Data analysis techniques using evIEWS12 by referring to the application of certain methods in processing previously collected data, with the aim of producing a conclusion. In this study, the methods used include:

1. Descriptive statistical analysis
2. Inferential statistical analysis : Stationary Test, Optimal Lag Determinant, Stability Test, Cointegration Test, Test the VECM Model, Granger Causality Test, *Analysis Impulse Response Function (IRF)*, *Variance Decomposition (VD)*.

RESULTS

Descriptive Statistics Analysis

Descriptive statistical analysis in this study includes minimum, maximum, mean, median, standard deviation, skewness and kurtosis values. The results of the detailed data description of each variable can be seen in the following table:

Table 2. Descriptive Statistics Results

	Stock Return	DER	CR	ROA
Mean	0.080072	0.890362	2.778478	0.091667
Median	0.005000	0.695000	2.250000	0.075000
Maximum	2.570000	11.82000	9.950000	0.530000
Minimum	-0.410000	0.100000	0.730000	0.000000
Std. Dev	0.365774	1.108530	1.801747	0.076460
Skewness	3.279009	7.101581	1.507923	2.644759
Kurtosis	19.34723	69.71268	5.164672	13.68301
Observations	138	138	138	138

Based on table 2, it can be seen that the highest minimum value is in the CR variable of 0.730000 while the lowest minimum value is in the stock return variable of -0.410000. At the maximum value, the highest maximum value is in the DER

variable of 11.82000 while the lowest maximum value is in the ROA variable of 0.530000. At the highest mean value is in the CR variable of 2.778478 while the lowest mean value is in the stock return variable of 0.080072. At the median value, the highest median value is in the CR variable with a value of 2.250000, while the lowest median value is in the stock return variable with a value of 0.005000. In addition, at the highest standard deviation value is in the CR variable with a value of 1.801747, while the lowest standard deviation value is in the ROA variable with a value of 0.076460.

Inferential statistical analysis

Stationary Test

Table 3. Unit Root Test Results

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-12.7239	0.0000	4	547
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-12.5141	0.0000	4	547
ADF - Fisher Chi-square	147.201	0.0000	4	547
PP - Fisher Chi-square	185.833	0.0000	4	548

Source: Processing Results with Eviews 12 (2025)

The results of the stationary test that has been carried out indicate that all variables have a probability smaller than the significant value set at 0.05 at the level level. This indicates that at the level level, all variables are stationary and there is no unit root. Therefore, the VAR model can be continued in this study.

Optimal Lag Determinant

Table 4. Lag Test Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-354.6181	NA	0.002925	5.517201	5.605433	5.553053
1	-283.4404	136.8802*	0.001252*	4.668313*	5.109472*	4.847571*
2	-275.5538	14.68122	0.001419	4.793135	5.587221	5.115799
3	-269.2745	11.30271	0.001651	4.942684	6.089698	5.408754
4	-265.6904	6.230850	0.002006	5.133698	6.633639	5.743174

5	-257.3002	14.06971	0.002267	5.250772	7.103640	6.003654
6	-250.3212	11.27376	0.002625	5.389556	7.595352	6.285845
7	-242.7770	11.72247	0.003023	5.519646	8.078369	6.559341
8	-233.6035	13.68964	0.003409	5.624670	8.536320	6.807771

Source: Processing Results with Eviews 12 (2025)

Based on the calculation of the optimum lag test results, it can be explained that the smallest values of LR, FPE, AIC, and HQ are obtained at lag 1, the condition of the optimal lag can be known by looking at the number of asterisks in each criterion in the table. The number of lags is used to determine the length of the period of influence on an endogenous variable with the past or other endogenous variables.

Stability Test

Table 5. Stability Test Results

Root	Modulus
0.685892	0.685892
0.549478	0.549478
0.227095	0.227095
-0.003718	0.003718

Source: Processing Results with Eviews 12 (2025)

The test results show that the VAR system is stable if all its roots have a modulation of less than one. The table above shows the test results that the stability test with lag 1 conditions shows that the VAR model is in a stable position, this can be seen from the overall value of the modulation being less than 1, and none being more than 1.

Cointegration Test

Tabel 6. Cointegration Test Results

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.355212	138.4058	54.07904	0.0000
At most 1 *	0.236234	78.72434	35.19275	0.0000

At most 2 *	0.174710	42.07327	20.26184	0.0000
At most 3 *	0.110719	15.95857	9.164546	0.0023

Source: Processing Results with Eviews 12 (2025)

If the prob is smaller than 0.05, it means it has a long-term equilibrium, the table above shows that all probs below 0.05 mean it has a long-term equilibrium. The results of this research test between stock return performance, DER, CR, ROA have Max-Eigen Statistic and Trace Statistic values greater than the critical value, meaning that the variables in this study have a long-term relationship. With the cointegration, the analysis with the VECM model can be continued.

Test the VECM Model

Table 7. Short-Term Test of VECM Model

Variabel	Koefisien T	t-statistik	t-tabel	Keterangan
D(RS(-1))	0.005773	0.39601	1.977826	Not Significant
D(DER(-1))	-0.000423	-0.09993	-1.977826	Not Significant
D(CR(-1))	0.000983	0.29261	1.977826	Not Significant
D(ROA(-1))	-0.214294	-2.46756	-1.977826	Significant

Source: Processing Results with Eviews 12 (2025)

The description in table 4.10 shows that with alpha 5% it is known that the stock return for the previous period, DER for the previous period, and CR for the previous period do not affect the stock return for the current period. While ROA for the previous period has a negative and significant effect on the stock return for the current period.

Table 8. Long-Term Test of VECM Model

Variabel	Koefisien T	T Statistik	T Tabel	Prob*
DER(-1)	0.082041	2.04780	1.977826	Significant
CR(-1)	0.006389	0.28163	1.977826	Not Significant
ROA(-1)	0.452217	0.95621	1.977826	Not Significant

Source: Processing Results with Eviews 12 (2025)

Table 8 shows the results of the long-term VECM test, only the Debt to Equity Ratio (DER) variable has a significant effect on stock returns. This is due to the t-statistic on the DER variable which has a value greater than the t-table value. Based on the DER coefficient of 0.082041, it can be concluded that every 1% increase in DER will have an impact of 0.82% on stock returns. Meanwhile, the CR and ROA

variables do not have a significant effect on stock returns because the I statistic values of CR and ROA are smaller than the t-table value. The t-statistic value for CR is 0.28163, while the t-statistic value for ROA is 0.95621.

Granger Causality Test

Table 9. Granger Causality Test

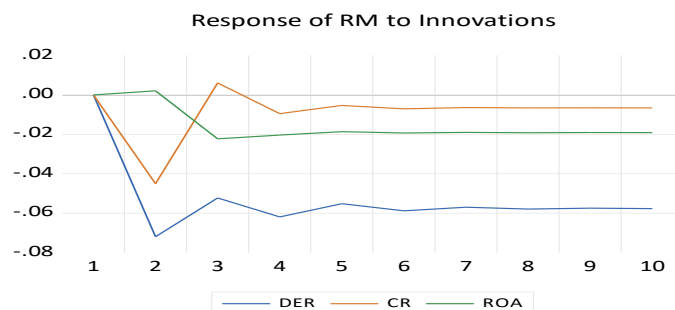
Hypotesis	F-Statistic	Prob	Description
DER does not Granger Cause RS	1.28205	0.2595	There is no causality
RS does not Granger Cause DER	0.61002	0.4362	There is no causality
CR does not Granger Cause RS	0.11097	0.7396	There is no causality
RS does not Granger Cause CR	0.08714	0.7683	There is no causality
ROA does not Granger Cause RS	0.37160	0.5432	There is no causality
RS does not Granger Cause ROA	0.48040	0.4894	There is no causality
CR does not Granger Cause DER	4.06376	0.0458	Causality occurs
DER does not Granger Cause CR	1.83132	0.1783	There is no causality
ROA does not Granger Cause DER	0.80972	0.3698	There is no causality
DER does not Granger Cause ROA	1.53725	0.2172	There is no causality
ROA does not Granger Cause CR	0.11733	0.7325	There is no causality
CR does not Granger Cause ROA	5.8446	0.0170	Causality occurs

Source: Processing Results with Eviews 12 (2025)

The results of the Granger causality test analysis can be seen in table 4.12. The results show that there is a one-way causal relationship between the CR variable that affects ROA and the CR variable that affects DER. While there is no causal relationship between other variables.

Analysis Impulse Response Function (IRF)

Response to Cholesky One S.D. (d.f. adjusted) Innovations



Source: Processing Results with Eviews 12 (2025)

Figure 4. IRF Results

Figure 4 shows the stock return response to DER, CR and ROA shocks in food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the period 2017-2022. Third, there was a shock to DER, a negative response was seen in the first period and then responded positively in the third period which then stabilized in the fifth period and so on. Meanwhile, the shock to CR showed a negative response in the second period and was corrected positively in the third period after which it stabilized in the fourth period and so on. The shock to ROA showed a negative response in the third period and was stable in the fourth period and so on.

Variance Decomposition (VD)

Table 10. Variance Decomposition (Stock Returns)

Period	RS	DER	CR	ROA
1	100.0000	0.000000	0.000000	0.000000
2	95.05358	3.551047	1.392326	0.003049
3	92.96922	5.307844	1.386344	0.336590
4	90.35375	7.644875	1.404131	0.597245
5	88.40554	9.400937	1.389028	0.804497
6	86.30007	11.30182	1.384173	1.013941
7	84.41648	12.99895	1.376281	1.208293
8	82.56396	14.67031	1.369195	1.396534
9	80.82472	16.23811	1.362581	1.574590
10	79.15073	17.74790	1.356075	1.745292

Source: Processing Results with Eviews 12 (2025)

In table 10, the VD results can be seen showing that the first period of stock returns contributed 100% to the stock return level itself, while the DER, CR, ROA variables have not contributed. In the second period, the stock return contribution was 95.05% while DER contributed 3.55%, CR 1.39% and ROA contributed 0.0030%. The change in the contribution value continued to shift, until in the tenth period, the stock return contributed 79.15% while DER 17.74%, CR 1.35% and ROA contributed 1.74%.

DISCUSSION

Based on the results of the VECM test, if the t-statistic value is smaller than the t-table value, there is no long-term relationship, but if the t-statistic is greater

than the t-table value, there is a long-term relationship. In the long term, it shows that the CR variable does not have a significant effect on stock returns because it has a t-statistic value smaller than the t-table value, which is $0.28163 < 1.977826$, so there is no relationship between CR and stock returns. So H1 is rejected, which means there is no long-term relationship between CR and stock returns. While in the short term, it shows that the CR variable has no relationship to stock returns because it has a t-statistic value smaller than the t-table value, which is $0.29261 < 1.977826$, so there is no short-term relationship between CR and stock returns. So H4 is rejected, which means there is no short-term equilibrium relationship between CR and stock returns. Then the results of the Granger causality test if the variable probability value is below 0.05, it is stated that a causal relationship has occurred. The granger causality test shows that there is no one-way or two-way causality between CR and stock returns because the probability value is above 0.05, so H7 is rejected which means there is no one-way causality between CR and stock returns and H13 is rejected which means there is no two-way causality between CR and stock returns. The results of this study are supported by the research of I Gede Pratama & Idawati (2019) and HIDAYAT (2021) which shows a relationship between CR and stock returns. The results of the study indicate that CR has a significant effect on stock returns.

Based on the VECM test results, if the t-statistic value is smaller than the t-table value, there is no relationship, but if the t-statistic is greater than the t-table value, there is a relationship. In the long-term VECM test, it shows that the DER variable has a relationship with stock returns because the t-statistic value for DER is greater than the t-table value, which is $2.04780 > 1.977826$, then there is a relationship between DER and stock returns. Then H2 is accepted, which means there is a long-term relationship between DER and stock returns. And the results of the short-term VECM test show that the DER variable has no relationship with stock returns, if the calculation result is minus, it is stated that there is no short-term relationship between DER and stock returns. If the t-statistic is greater than the t-table value, which is $-0.09993 > 1.977826$, then there is no short-term relationship between DER and stock returns. Then H5 is rejected, which means there is no short-term equilibrium relationship between DER and stock returns. Then the results of the Granger causality test show that there is no one-way or two-way causal relationship between DER and stock returns because the probability value is above 0.05, so H9 is rejected which means there is no one-way causal relationship between DER and stock returns and H15 is rejected which means there is no two-way causal relationship between DER and stock returns. The results of this study are supported by research by Gunawan & Sugianto (2021) and Mandager et al.

(2023) which shows a relationship between Debt to Equity Ratio (DER) and stock returns. The results of the study show that DER has a significant effect on stock returns.

Based on the results of the VECM test, the results of the long-term VECM test show that the ROA variable has no relationship to stock returns because the t-statistic value for ROA is smaller than the t-table value, which is $0.95621 < 1.977826$, which indicates that the t-statistic value is smaller than the t-table value, which means that there is no long-term relationship between ROA and stock returns. So H3 is rejected, which means that there is no long-term relationship between ROA and stock returns. And the short term shows that the ROA variable has a negative relationship to stock returns, because the results of the t-statistic test show a negative number, so if the t-statistic is smaller than the t-table value, it is stated that there is a negative relationship, which is $-2.46756 < -1.977826$, it is stated that ROA has a negative relationship to stock returns. So H6 is accepted, which means that there is a short-term equilibrium relationship between ROA and stock returns. The results of the Granger causality test show that there is no one-way or two-way causal relationship between the ROA variable and stock returns because the probability value is above 0.05, then H11 which means there is no one-way causal relationship between ROA and stock returns and H17 is rejected which means there is no two-way causal relationship between ROA and stock returns. The results of this study are supported by research by Tri Putro & Kamil (2020) and Ramzilah et al (2020) which shows a relationship between ROA and stock returns. The results of the study indicate that ROA has a significant effect on stock returns.

CONCLUSION

Based on the results of research using the VECM method, it shows that:

1. Based on the results of the VECM test in the short term, it can be concluded that (DER) and (CR) do not have a significant effect on stock returns. While (ROA) affects stock returns. These results show that changes in CR and DER variables have no impact on changes in stock returns in the short term, while ROA variables have an impact on changes in stock returns.
2. Based on the results of the VECM test on the long term, it shows that only the DER variable has a significant influence on stock returns. This can be seen from the value of t-statistics in the variable DER greater than the value of t-table. However, the variables CR and ROA do not have a significant effect on stock returns because the t-statistical values for CR and ROA are smaller than the t-table values.

3. Based on the results of the granger causality test, only a one-way causality relationship was found from the *variables* Current Ratio (CR) and Return on Assets (ROA) and one-way causality relationship from the *variable* Current Ratio (CR) to Debt to Equity Ratio (DER).

Further research can expand the scope of the data by involving more diverse data sources, considering collecting primary data or gaining more direct access to more specific data and extending the research time span to gain a more comprehensive perspective.

REFERENCES

- Abbas, D. S., Zulaecha, H. E., Rachmania, D., Hakim, M. Z., & Rachmi, D. A. (2022). Analysis of determinant factors in influencing stock return: Panel data analysis approach. *Journal of Humanities and Social Sciences Innovation*, 2(5), 645–655. <https://doi.org/10.35877/454RI.daengku1205>
- Adedeji, E. A. (2014). A tool for measuring organization performance using ratio analysis. *Research Journal of Finance and Accounting*, 5(19), 16–22. <https://doi.org/10.14738/assrj.18.572>
- Andhani, D. (2019). Pengaruh debt to total asset ratio (dar) dan debt to equity ratio (der) terhadap net profit margin (npm) serta dampaknya terhadap harga saham pada perusahaan elektronik di bursa efek tokyo tahun 2007-2016. *Jurnal SEKURITAS (Saham, Ekonomi, Keuangan Dan Investasi)*, 3(1), 45. <https://doi.org/10.32493/skt.v3i1.3262>
- Chinn, M. D., & Ito, H. (2006). What matters for financial development? Capital controls, institutions, and interactions. *Journal of Development Economics*, 81(1), 163–192. <https://doi.org/10.1016/j.jdeveco.2005.05.010>
- Devi, N. N. S. J. P., & Artini, L. G. S. (2019). Pengaruh Roe, Der, Per, dan nilai tukar terhadap return saham. *E-Jurnal Manajemen Universitas Udayana*, 8(7), 4183. <https://doi.org/10.24843/EJMUNUD.2019.v08.i07.p07>
- Febriana, H., Irnawati, J., & Novyanhagi, A. F. (2022). Pengaruh Current ratio (CR) dan Debt to Equity Ratio (DER) terhadap Laba Bersih pada PT Darya-Varia Laboratoria Tbk. *Jurnal Kajian Pendidikan Ekonomi Dan Ilmu Ekonomi*, 6(2), 121–131. <https://doi.org/10.23969/oikos.v6i2.5371>
- Gunawan, F., & Sugianto, Y. (2021). Pengaruh Earning Pershare (EPS), Opini Audit, Return On Equity (ROE), Dan Debt To Equity Ratio (DER) Terhadap Return Saham Pada Perusahaan Yang terdaftar dalam Bursa Efek Indonesia (BEI). *Akuntansi Prima*, 3(2), 65–85. <https://doi.org/10.34012/japri.v2i2.1710>
- Hidayat, D. A. F. (2021). Pengaruh Return on Assets, Debt to Equity Ratio, Current Ratio, Price Earning Ratio, Exchange Rate terhadap Return Saham (Studi Empiris pada Perusahaan Sub Sektor Transportasi yang Terdaftar di Bursa Efek Indonesia Periode 2017–2019). <https://dspace.uii.ac.id/handle/123456789/31196>
- Hasanah, U., & Sulistiyo, H. (2021). The Effect of CR, DER, And ROE on Stock Prices Transportation Sub Sector Companies Listed on The Indonesia Stock Exchange.

- Nominal: *Barometer Riset Akuntansi dan Manajemen*, 10(1), 102–117.
<https://doi.org/10.37200/ljpr/V23i2/Pr190342>
- Hermuningsih, S., Rahmawati, A. D., & Mujino, M. (2018). Faktor-faktor yang Mempengaruhi Return Saham. *Jurnal Ekonomi Dan Bisnis*, 19(3), 78–89.
<https://doi.org/10.30659/ekobis.19.3.78-89>
- Hidayat, D. A. F. (2021). Pengaruh Return on Assets, Debt to Equity Ratio, Current Ratio, Price Earning Ratio, Exchange Rate terhadap Return Saham (Studi Empiris Pada Perusahaan Sub Sektor Transportasi yang Terdaftar di Bursa Efek Indonesia Periode 2017–2019). <https://dspace.uui.ac.id/handle/123456789/31196>
- Hobfoll, S. E., & Freedy, J. (2017). *Conservation of Resources: A General Stress Theory Applied to Burnout*. Routledge.
- Innawati, I. (2019). Pengaruh Current Ratio, Debt to Asset Ratio dan Total Asset Turn Over terhadap Return on Assets pada Koperasi di Kabupaten Gresik Tahun 2013-2015 (Studi pada Koperasi yang Melaporkan di Diskoperindag). *Jurnal Manajerial*, 5(1), 1–10. <https://doi.org/10.30587/jurnalmanajerial.v5i1.733>
- Mandager, U. A. M., Hidayati, S. A., & Putra, I. N. N. A. (2023). Pengaruh Current Ratio (CR), Debt to Equity Ratio (DER), Return on Equity (ROE), dan Total Asset Turnover (Tato) terhadap Harga Saham Perusahaan Makanan dan Minuman yang Terdaftar di BEI Tahun 2017-2021. *JMM Unram-Master of Management Journal*, 12(4), 332–348. <https://doi.org/10.29303/jmm.v12i4.784>
- Nadyayani, D. A. D., & Suarjaya, A. A. G. (2021). The Effect of Profitability on Stock Return. *Journal of Humanities and Social Sciences Research (AJHSSR)*, 5(1), 695–703. <https://www.ajhssr.com/wp-content/uploads/2021/01/ZZZC21501695703.pdf>
- Noviyana, S., Febriyola, A. S., & Koranti, K. (2023). Analysis of Financial Performance Using Liquidity Ratio, Solvency Ratio, Activity Ratio, Profitability Ratio in Pharmaceutical Sub-sector Manufacturing Companies on the Indonesia Stock Exchange for The 2018-2020 Period in DKI Jakarta. *Jurnal Syntax Transformation*, 4(8), 79–89. <https://doi.org/10.46799/jst.v4i8.788>
- Pratama, I. G. S., & Idawati, I. A. A. (2019). Pengaruh Rasio Keuangan terhadap Return Saham pada Perusahaan Pertanian di Bursa Efek Indonesia. *WICAKSANA: Jurnal Lingkungan dan Pembangunan*, 3(1), 38–44.
<https://ejournal.warmadewa.ac.id/index.php/wicaksana/article/view/1038>
- Purnomo, L. A., & Basir, A. (2023). Pengaruh Current Ration terhadap Profitabilitas pada PT Pegadaian tahun 2018-2022. *Aliansi: Jurnal Manajemen dan Bisnis*, 18(2).
<https://doi.org/10.46975/aliansi.v18i2.520>
- Ramziah, R., Nazariah, N., & Maldini, F. (2020). Pengaruh Net Profit Margin, Earning Per Share, Current Asset Dan Price to Book Value terhadap Return Saham pada Perusahaan Manufaktur Sub Sektor Kimia yang Terdaftar di Bursa Efek Indonesia (Bei) Periode 2014-2018. *Jurnal Sains Riset*, 10(2), 149–164.
<https://doi.org/10.47647/jsr.v10i2.278>
- Rashid, C. A. (2021). The Efficiency of Financial Ratios Analysis to Evaluate Company's Profitability. *Journal of Global Economics and Business*, 2(4), 119–132.
https://www.researchgate.net/publication/348686551_THE_EFFICIENCY_OF_FINANCIAL_RATIOS_ANALYSIS_TO_EVALUATE_COMPANY'S_PROFITABILITY

- Ratnasari, D. (2020). Analisis Pengaruh Current Ratio, Debt to Equity Ratio, Price Earning Ratio dan Return on Assets terhadap Nilai Perusahaan pada Perusahaan Manufaktur di Bursa Efek Indonesia. *FIN-ACC (Finance Accounting)*, 4(11).
- Saputra, F. (2022). Analysis Effect Return on Assets (ROA), Return on Equity (ROE) and Price Earning Ratio (PER) on Stock Prices of Coal Companies in The Indonesia Stock Exchange (IDX) Period 2018-2021. *Dinasti International Journal of Economics, Finance and Accounting*, 3(1), 82–94. <https://doi.org/10.38035/dijefa.v3i1.1238>
- Siregar, C. P., Putrie, S. G. S., & Leon, F. M. (2022). Pengaruh Perilaku Bias Keuangan terhadap Keputusan Investasi dengan Literasi Keuangan sebagai Variabel Moderasi di Jabodetabek. *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi)*, 9(1). <https://doi.org/10.35794/jmbi.v9i1.38674>
- Sulistyaningsih, E. (2016). Analisis Hari Perdagangan dan Weekend Effect terhadap Return Saham Perusahaan Food And Beverages yang terdaftar di Bursa Efek Indonesia. (Doctoral Dissertation, STIE PERBANAS Surabaya). <http://eprints.perbanas.ac.id/3138/5/ARTIKEL%20ILMIAH.pdf>
- Tri-Putro, R. R., & Kamil, K. (2020). Pengaruh Debt to Asset Ratio (DAR), Return on Asset (ROA), dan Earning per Share (EPS) terhadap Return on Saham (Studi pada Perusahaan Subsektor Konstruksi dan Bangunan yang Terdaftar di BEI). <http://repository.stei.ac.id/1786/>
- Wesso, M. V. D., FoEh, J. E., & Sinaga, J. (2022). Analisis Pengaruh ROA, ROE, dan DER terhadap Return Saham (Literature Review Manajemen Keuangan Perusahaan). *Jurnal Ilmu Multidisplin*, 1(2), 434–446. <https://doi.org/10.38035/jim.v1i2.53>
- Zelfi, A. H., Adly, M. A., & Syahputra, A. (2023). Jual Beli Saham dalam Perspektif Taqyuddin An-Nabhani dan Yusuf Al-Qardhawi di Pasar Modal (Studi Kasus di Bursa Efek Indonesia Kantor Perwakilan Sumatera Utara). *Jurnal Cakrawala Ilmiah*, 2(1), 3673–3690. <https://doi.org/10.53625/jcijurnalcakrawalailmiah.v2i10.5832>