The Influence of CR and DER on ROE in The Non-Cyclical Consumer Sector For Ten Years

Nabila Apriliani

Abstract

This research is a quantitative study to determine the effect of the Current Ratio (CR) and Debt to Equity Ratio (DER) on Return On Equity (ROE) in the Consumer Non-Cylclical Sector for the 2012–2021 period. The data used is secondary data obtained from www.idx.co.id. The sample in this study used a purposive sampling method and obtained as many as 4 companies out of 10 population companies in the industrial sector which were used as research objects. The data analysis method used in this research is descriptive statistics, panel data regression analysis, hypothesis testing, and coefficient of determination test. Based on the partial test analysis, CR has no significant effect on ROE in the non-cyclical consumer sector. Then, DER has a significant effect on Return ROE in the non-cyclical consumer. It is concluded that CR and DER together have no effect on ROE, simultaneously.

Keywords: Current Ratio (CR), Debt To Equity Ratio (DER) and Return On Equity (ROE)

JEL: G30

Corresponding author's email : nabila.apriliani026@gmail.com

Background

Consumer Non-Cyclical is an economic condition that occurs in the form of a recession or boom, this need must exist and cannot be eliminated from daily use. Another term is consumer staples. The importance of the Consumer Non-Cyclical sector is that companies produce goods or services that are always in demand and needed by consumers. Growth is stable and does not soar high and is a stock that is targeted in times of recession. Because even when economic conditions are down, this type of stock continues to grow, some even increase many-fold, such as herbal medicine companies which are much needed during the pandemic. For safe investors or beginners, this type of stock is suitable for long-term investment because of the income and profit. which tends to be more stable.

Industries that fall into the Consumer Non-Cyclical category include drinks, retail of food or basic necessities, tobacco and household products. Ten Non-Cyclical Consumer Companies, namely UNVR - PT Unilever Indonesia Tbk, ICBP - PT Indofood CBP Sukses Makmur Tbk, JPFA - PT Japfa Comfeed Tbk, MYOR - PT Mayora Indah Tbk, AALI - PT Astra Agro Lestari Tbk, ULTJ - PT Ultra Jaya Milk Industri & Tradig Company Tbk, CLEO - PT Sariguna Primatirta Tbk, HOKI - PT Buyung Poetra Sembada Tbk, AMRT - PT Sumber Alfaria Trijaya Tbk and GOOD - PT Garudafood Putra Putri Jaya Tbk. This research uses four Consumer Non-Cyclical companies, namely UNVR - PT Unilever Indonesia Tbk, JPFA - PT Japfa Comfeed Tbk, MYOR - PT Mayora Indah Tbk and AMRT - PT Sumber Alfaria Trijaya Tbk. Here, to analyze financial ratios, financial reports are needed at PT. Unilever Indonesia, PT. Japfa, PT. Mayora Indah and PT. Sumber Alfaria saw that the profit and loss results of the four companies had fluctuating values, this means that the profit and loss was still experiencing increases and decreases at PT. Unilever experienced an increase in 2012 of 4,839,145, in 2013 of 5,352,625, in 2014 of 5,738,523, in 2015 of 5,851,805, in 2016 of 6,390,672, in 2017 of 7,004,562, in 2018 of 9. 109. 445, and experienced a decrease in the last three years in 2019 amounting to 7,392,837, in 2020 amounting to 7,163,536 and in 2021 amounting to 5,758,148. At PT. Japfa in 2012 experienced an increase of 1,704,577, then in 2013 - 2054 it experienced a decrease of 640,637 to 524,484, but in 2016 it experienced a significant increase of 2,171,608, in 2017 it experienced a decrease of 1,107,810, then in 2018 it experienced an increase

amounting to 2,253,201, while in 2019 - 2020 there was a decrease from 1,883,857 to 1,221,904, and in the last year 2021 there was an increase of 2,130,896. At PT. Mayora in 2012 - 2013 experienced an increase of 744,428, up to 1,058,418, while in 2014 it experienced a decrease of 409,824, in 2015 to 2020 it experienced a significant increase in 2015 amounting to 1,250,233, in 2016 amounting to 1,388,676, in 2017 amounting to 1,630,953, in 2018 it was 1,760,434, in 2019 it was 2,039,404, in 2020 it was 2,098,168 and experienced a decrease in the last year in 2021 which experienced a decrease of 1,211,052. At PT. Sumber Alfaria in 2012 - 2014 experienced an increase in 2012 of 481,076, in 2013 it was 569,042, in 2014 it was 572,318, while in 2015 it experienced a decrease of 464,204, then in 2016 it experienced an increase of 553,835, but in 2017 it experienced a decrease of 257,735, 2018 – 2019 experienced an increase of 668,426 to 1,138,888, while in 2020 there was a decrease of 1,088,477, and in 2021 there was a significant increase of 1,988,750

The capital of the four companies, only three companies have fluctuating values, this means that the capital is still experiencing increases and decreases at PT. Unilever from 2012 to 2018 experienced an increase in 2012 amounting to 3,968,365, in 2013 amounting to 4,254,670, in 2014 amounting to 4,746,514, in 2015 amounting to 4,827,360, then in 2016 it experienced a decrease of 4,704,258, but in 2017 - 2018 experienced an increase of 5,173,388 to 7,578,133, and in the last three years it experienced a decrease in 2019 amounting to 5,281,862, in 2020 amounting to 4,937,368 and in 2021 amounting to 4,321,269. At PT. Japfa from 2012 to 2019 experienced an increase in 2012 amounting to 4,763,327, in 2013 amounting to 5,245,222, in 2014 amounting to 5,289,994, in 2015 amounting to 6,109,692, in 2016 amounting to 9,372,964, in 2017 amounting to 9,795.62 8, years 2018 10,214,809, in 2019 it was 11,448,168, then in 2020 there was a decrease of 11,411,970 and an increase in the last year in 2021 of 13,102,710. At PT. Mayora Indah from 2012 to 2021 experienced a significant increase in 2012 amounting to 3,067,850, in 2013 amounting to 3,938,760, in 2014 amounting to 4,100,554, in 2015 it was 5,194,459, in 2016 it was 6,265,255, in 2017 it was 7,354,346, in 2018 it was 8,542,544, in 2019 it was 9,899,940, in 2020 it was 11,271,468, and in 2021 it was 11.36 0.031. At PT. Sumber Alfaria in 2012 experienced an increase of 3,099,506, then in 2013 it experienced a decrease of 2,603,727, but in 2014 to 2016 it experienced an increase in 2014 of 3,006,550, in 2015 it was 4,850,216, in 2016 it was 5,294,763, while in 2017 it decreased by 5,250,170, and experienced an increase in the last four years in 2018 amounting to 6,017,558, in 2019

amounting to 6,884,307, in 2020 amounting to 7,636,328 and in 2021 amounting to 8,989,798.

According to Rudianto (2013), the liquidity ratio is the ability of a company to be able to fulfill its obligations to pay short-term debts such as business debts, dividend debts, tax debts, and others (Rudianto, 2013). using the Current Ratio (CR) measuring instrument.

The results of current debt from four companies have fluctuating values, this means that current debt is still experiencing increases and decreases at PT. From 2012 to 2017, Unilever experienced an increase in 2012 of 7,535,896, in 2013 of 8,419,442, in 2014 of 8,864,832, in 2015 of 10,127,542, in 2016 of 10,878,074, in 2017 of 12.5 32,304, then in 2018 there was a decrease of 11,134,786, but in 2019 – 2020 there was an increase of 13,065,308 to 13,357,536 and experienced a decrease in the last year in 2021 of 12,445,152. At PT. Japfa from 2012 to 2015 experienced an increase in 2012 amounting to 3,523,891, in 2013 amounting to 4,361,546, in 2014 amounting to 4,916,448, in 2015 amounting to 5,352,670, then in 2016 – 2017 it experienced a decrease of 5,193,549 to 4. 769. 640, but in 2018 – 2019 there was an increase of 6,904,477 to 7,033,796, while in 2020 there was a decrease of 6,007,679, and there was an increase in the last year in 2021 of 7,064,166. At PT. Mayora Indah from 2012 to 2018 experienced an increase in 2012 of 1,924,434, in 2013 of 2,631,646, in 2014 of 3,114,337, in 2015 of 3,151,495, in 2016 of 3,884,051, in 2017 of 4,473.62 8, Then in 2018 - 2020 there was a decrease in 2018 amounting to 1,804,748, in 2019 amounting to 3,726,359, in 2020 amounting to 3,475,323 and in 2021 an increase of 5,570,773. At PT. Alaria sources from 2012 to 2014 experienced an increase in 2012 amounting to 5,570,773, in 2013 amounting to 5,570,773, in 2014 amounting to 7,805,421, in 2015 experiencing a decrease of 7,738,527, then in 2016 – 2019 there was a significant increase in 2016 amounting to 10,232,917, in 2017 amounting to 11,544,190, in 2018 amounting to 12,791,052, in 2019 amounting to 14,782,817 and in the last two years it has decreased, namely in 2020 amounting to 13,558,536 and in 2021 amounting to 13,558,536.

The solvency ratio can be measured through the Debt To Equity Ratio (DER). According to Abdul Halim, the Debt to Equity Ratio shows how many rupiah of own capital is provided to pay debts. Debt To Equity Ratio (DER) is a ratio that divides profit after tax by the average capital ratio in the company. This ratio is used to see the company's level of efficiency in managing its equity to produce the company's net profit.

The result of the total debt from the four companies has a fluctuating value, this means that the total debt is still experiencing increases and decreases at PT. Unilever from 2012 to 2017 experienced an increase in 2012 amounting to 7,535,896, in 2013 amounting to

8,419,442, in 2014 amounting to 8,864,832, in 2015 amounting to 10,127,542, in 2016 amounting to 10,878,074, in 2017 amounting to 12,532 .304, then in 2018 there was a decrease of 11,134,786, but in 2019 – 2020 there was an increase of 13,065,308 to 13,357,536 and experienced a decrease in the last year in 2021 of 12,445,152. At PT. Japfa from 2012 to 2015 experienced an increase in 2012 amounting to 3,523,891, in 2013 amounting to 4,361,546, in 2014 amounting to 4,916,448, in 2015 amounting to 5,352,670, then in 2016 – 2017 it experienced a decrease of 5,193,549 to 4. 769. 640, but in 2018 – 2019 there was an increase of 6,904,477 to 7,033,796, while in 2020 there was a decrease of 6,007,679, and there was an increase in the last year in 2021 of 7,064,166. At PT. Mayora Indah from 2012 to 2018 experienced an increase in 2012 of 1,924,434, in 2013 of 2,631,646, in 2014 of 3,114,337, in 2015 of 3,151,495, in 2016 of 3,884,051, in 2017 of 4,473.62 8, in 2018 it was 4,764,510, then in 2019 – 2020 it experienced a decrease of 3,726,359 to 3,475,323 and an increase of 5,570,773. At PT. Alaria sources from 2012 to 2016 experienced an increase in 2012 amounting to 4,065,584, in 2013 amounting to 6,978,407, in 2014 amounting to 8,534,521, in 2015 amounting to 7,023,633, in 2016 amounting to 13,055,903, then in 2018 there was a decrease of 11,126,956, and experienced an increase in the last three years in 2019 amounting to 13,167,601, in 2020 amounting to 15,326,139 and in 2021 amounting to 16,376,061.

The results of capital from four companies only three companies have fluctuating values, this means that capital is still experiencing increases and decreases at PT. Unilever from 2012 to 2018 experienced an increase in 2012 amounting to 3,968,365, in 2013 amounting to 4,598,782, in 2014 amounting to 4,746,514, in 2015 amounting to 4,827,360, then in 2016 it experienced a decrease of 4,704,258, but in 2017 - 2018 experienced an increase of 5,173,388 to 7,578,133, and in the last three years it experienced a decrease in 2019 amounting to 5,281,862, in 2020 amounting to 4,937,368 and in 2021 amounting to 4,321,269. At PT. Japfa from 2012 to 2019 experienced an increase in 2012 amounting to 4,763,327, in 2013 amounting to 5,245,222, in 2014 amounting to 5,289,994, in 2015 amounting to 6,109,692, in 2016 amounting to 9,372,964, in 2017 amounting to 9,795.62 8, years 2018 10,214,809, in 2019 it was 11,448,168, then in 2020 there was a decrease of 11,411,970 and an increase in the last year in 2021 of 13,102,710.

Previous Studies shows the consumer non-cyclical sector NPM, CR, DER affect ROE significantly (Azhari & Noval, 2023). Current Ratio and Profitability ratioa affect financial distress (Stepani &Nugroho, 2023). CR and DER affected company value (Nadia &

Mahardika, 2024). Solvency, activity, profitability and market value have affected stock return (Arsita&Sihombing, 2021)

Problem Statement this research is that is there an influence of the Current Ratio (CR) and Debt On Equity Ratio (DER) on Return On Equity (ROE) in the Consumer Non-Cyclical Sector for the 2012 – 2021 Period partially and simultaneously?

Literature Review

Debt to Equity Ratio (DER)

According to Fahmi (2020:132) Debt To Equity Ratio is a measure used in analyzing financial reports to show the amount of collateral available to creditors. Debt To Equity Ratio Is a ratio used to assess debt versus equity. This ratio is found by comparing all debt, including current debt, with all equity.

According to Horne and Wachowicz (2009) Debt to equity ratio is a comparison between total debt or total debts and total shareholder's equity. The higher the debt to equity ratio of a company, the higher the company's capital dependence on external parties, so that the company's burden becomes heavier, which in the end will reduce shareholder rights (dividends).

Return On Equity (ROE)

According to Fahmi (2020:142), Return on Equity, also called return on equity, is a ratio that assesses the extent to which a company uses its resources to be able to provide a return on equity. According to Sawir (2003). Return on Equity is a ratio that shows the extent to which a company manages its own capital (networth) effectively measuring the level of profit from investments made by its own capital owners or shareholders. Return On Equity (ROE) is a measure of how much return or profit is obtained from the capital owned. The higher the company's ability to generate profits, the higher the company's ROE.

Research Method

The research uses quantitative methods with a descriptive approach. According to Prof. Sugiyono (2021:16) Quantitative methods are called traditional methods because this method has been used for a long time so it has become a tradition as a medium for research. This method is called a positivistic method because it is based on the philosophy of positivism. This method is a scientific or scientific method because it meets scientific principles, namely concrete or empirical, objective, measurable, rational and systematic. This is also called the

discovery method, because with this method various new science and technology can be discovered and developed. This method is called a quantitative method because the research data is in the form of numbers and analysis uses statistics.

Quantitative research methods can also be interpreted as research methods that are based on the philosophy of positivism, used to research certain populations or samples, collecting data using research instruments, quantitative or statistical data analysis, with the aim of testing predetermined hypotheses.

Research using quantitative methods can generally be carried out on samples taken randomly, so that the conclusions of the research results can be generalized to the population from which the sample was taken.

The companies used as research objects are four consumer goods industry sub-sector manufacturing companies listed on the Indonesia Stock Exchange (BEI), namely UNVR - PT Unilever Indonesia Tbk, JPFA - PT Japfa Comfeed Tbk, MYOR - PT Mayora Indah Tbk and AMRT - PT Source Alfaria Trijaya Tbk.

This research takes research data based on the results of financial reports for the last 10 years, namely from 2012 to 2021. Financial report data from UNVR - PT Unilever Indonesia Tbk, JPFA - PT Japfa Comfeed Tbk, MYOR - PT Mayora Indah Tbk and AMRT - PT Source Alfaria Trijaya Tbk. obtained from the website: https://www.idnfinancials.com

Based on the description above, the population in this study are financial reports obtained from the official website and also financial reports obtained from the financial report data of UNVR - PT Unilever Indonesia Tbk, JPFA - PT Japfa Comfeed Tbk, MYOR - PT Mayora Indah Tbk and AMRT - PT Sumber Alfaria Trijaya Tbk. obtained from the website: https://www.idnfinancials.com

The criteria for companies used as samples for this research are as follows:

1. Manufacturing companies listed on the Indonesian Stock Exchange (BEI) in 2012-2021.
2. Financial reports using rupiah currency during 2012-2021.
3. Listing companies during 2012-2021.
4. There is complete data required for the years 2012-2021.

Data analysis techniques use descriptive statistical analysis, testing the Panel Data Regression Model, determination of the Panel Data Regression Model, hypothesis testing using T test (partial test) and F Test (Simultaneous).

Result and Discussion

Result

Table 1 Descriptive Statistics Test

Date:
02/26/23
Time: 14:53
Sample: 2012 2021

	ROE	CR	DER
Mean	0.449878	1.665791	1.376892
Median	0.212314	1.390762	1.120537
Maximum	1.450882	7.008102	2.879976
Minimum	0.049091	0.605632	0.308329
Std. Dev.	0.503589	1.192375	0.837809
Skewness	1.141489	2.396481	0.352666
Kurtosis	2.398296	11.14561	1.602100
Jarque-Bera	9.290059	148.8723	4.086029
Probability	0.009609	0.000000	0.129637
Sum	17.99511	66.63164	55.07569
Sum Sq. Dev.	9.890458	55.44861	27.37501
Observations	40	40	40

c

From the table above, it can be concluded that based on the data processing carried out by the researcher, it can be interpreted that for the Current Ratio (CR) variable with a total of 40 data from 4 companies for 10 years used as research samples, the average (mean) Current Ratio is known (CR) namely 1.665791, the middle value (median) is 1.390762, the minimum value is 0.605632 experienced by PT. Unilever (2016) the maximum value was 7.008102 experienced by Pt. Mayora (2018) and the standard deviation is 1.192375.

Then, based on the data processing carried out by the researcher, it can be interpreted that for the Debt To Equity Ratio (DER) variable with a total of 40 data from 4 companies for 10 years used as research samples, the average (mean) Debt To Equity Ratio (DER) is known, namely 1.376892, the middle value (median) is 1.120537, the minimum value is 0.308329 experienced by Pt. Mayora (2020) the maximum value was 2.879976 experienced by Pt. Unilever (2021) and the standard deviation is 0.837809.

And based on the data processing carried out by the researcher, it can be interpreted that for the Return On Equity (ROE) variable with a total of 40 data from 4 companies for 10 years which were used as research samples, it is known that the average (mean) Return On Equity (ROE) is 0.449878, The middle value (median) is 0.212314, the minimum value is 0.049091 experienced by Pt. Source Al-Faria (2017) the maximum value is 1.450882 experienced by Pt. Unilever (2014) and the standard deviation is 0.837809.

Table 2 Data Panel Regression Estimation Commont Effect Model

Dependent Variable: ROE
Method: Panel Least Squares
Date: 02/26/23 Time: 14:55
Sample: 2012 2021
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error
C	0.110093	0.270245
CR	-0.046116	0.078430
DER	0.302568	0.111623

Root MSE	0.403420	R-squared
Mean dependent var	0.449878	Adjusted R-squared
S.D. dependent var	0.503589	S.E. of regression
Akaike info criterion	1.172323	Sum squared resid
Schwarz criterion	1.298989	Log likelihood
Hannan-Quinn criter.	1.218121	F-statistic
Durbin-Watson stat	0.123808	Prob(F-statistic)

Based on table 2, using the Common Effect Model, the constant value is 0.110093, then the Current Ratio (CR) coefficient value is -0.046116 and the coefficient value for the Debt To Equity Ratio (DER) variable is 0.302568, so the following regression equation can be created:

$$Y = 0.110093 - 0.046116\ CR_{i,t} + 0.302568\ DER_{i,t}$$

Based on the panel data regression equation, it can be explained that:

a. CR has a negative effect on ROE

b. DER has a positive effect on ROE

c. The residual value is the value provided by other factors that are not studied apart from the CR, DER and ROE change factors.

Table 3 Model Fixed Effect

Dependent Variable: ROE
Method: Panel EGLS (Cross-section weights)
Date: 02/26/23 Time: 14:57
Sample: 2012 2021
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.354180	0.050264	7.046348	0.0000
CR	0.004670	0.012838	0.363807	0.7183
DER	0.063852	0.031095	2.053450	0.0478

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

Root MSE	0.058348	R-squared	0.985025
Mean dependent var	0.434801	Adjusted R-squared	0.982823
S.D. dependent var	0.467582	S.E. of regression	0.063288
Sum squared resid	0.136181	F-statistic	447.2906
Durbin-Watson stat	1.864742	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.986210	Mean dependent var	0.449878
Sum squared resid	0.136386	Durbin-Watson stat	1.849703

Based on table 3, using the Fixed Effect Model has a constant value of 0.354180, while the Current Ratio (CR) regression coefficient is 0.004670 and the Debt To Equity Ratio (DER) is 0.063852 so the regression equation is:

$$Y = 0.354180 + 0.004670\ CR_{i,t} + 0.063852\ DER_{i,t}$$

Based on the panel data regression equation, it can be explained that:

a. CR has a positive effect on ROE

b. DER has a positive effect on ROE

c. The ROE value will be constant at 0.354180 if influenced by the regression coefficient of the CR and DER values.

Table 4 Model Random Effect

Dependent Variable: ROE
Method: Panel EGLS (Cross-section random effects)
Date: 02/26/23 Time: 14:58
Sample: 2012 2021
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.346193	0.391415	0.884465	0.3822
CR	0.004414	0.014153	0.311903	0.7569
DER	0.069963	0.030754	2.274916	0.0288

Effects Specification	S.D.	Rho
Cross-section random	0.776168	0.9934
Idiosyncratic random	0.063311	0.0066

Weighted Statistics

Root MSE	0.059588	R-squared	0.127888
Mean dependent var	0.011600	Adjusted R-squared	0.080746
S.D. dependent var	0.064621	S.E. of regression	0.061957
Sum squared resid	0.142031	F-statistic	2.712860
Durbin-Watson stat	1.780230	Prob(F-statistic)	0.079541

Unweighted Statistics

R-squared	0.113300	Mean dependent var	0.449878
Sum squared resid	8.769866	Durbin-Watson stat	0.028831

Based on table 4, using the Random Effect Model, the constant value is 0.346193, the Current Ratio (CR) is 0.004414 and the Debt To Equity Ratio (DER) is 0.069963 so the regression equation is:

$$Y = 0.346193 + 0.004414\ CR_{i,t} + 0.069963\ DER_{i,t}$$

Based on the panel data regression equation, it can be explained that:

a. CR has a positive effect on ROE

b. DER has a positive effect on ROE

c. The ROE value will be constant at 0.346193 if influenced by the regression coefficient of the CR and DER values

From calculations using the Random Effect Model, the Current Ratio (CR) t-test result is 0.311903 < 2.02619, so the Ho result is rejected and Ha is accepted, while the Debt

To Equity Ratio (DER) is 2.274916 > 2.02619, so the Ho result is accepted and Ha is rejected.

Determination data panel test

Table 5 Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	530.033050	(3,34)	0.0000
Cross-section Chi-square	154.653922	3	0.0000

Cross-section fixed effects test equation:
Dependent Variable: ROE
Method: Panel Least Squares
Date: 02/26/23 Time: 15:03
Sample: 2012 2021
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.110093	0.270245	0.407380	0.6861
CR	-0.046116	0.078430	-0.587982	0.5601
DER	0.302568	0.111623	2.710634	0.0101

Root MSE	0.403420	R-squared	0.341799
Mean dependent var	0.449878	Adjusted R-squared	0.306221
S.D. dependent var	0.503589	S.E. of regression	0.419456
Akaike info criterion	1.172323	Sum squared resid	6.509907
Schwarz criterion	1.298989	Log likelihood	-20.44645
Hannan-Quinn criter.	1.218121	F-statistic	9.606929
Durbin-Watson stat	0.123808	Prob(F-statistic)	0.000436

In table 5, it can be seen from the results of the chow test for the Current Ratio and Debt To Equity Ratio variables that the Profitability (prob) Cross Section F value is 0.0000 < 0.05, so Ho is rejected and Ha is accepted, which means using the Common Effect Model approach.

Table 6 Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.434058	2	0.8049

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var (Diff.)	Prob.
CR	0.004677	0.004414	0.000000	0.5397
DER	0.068792	0.069963	0.000003	0.5116

Cross-section random effects test equation:
Dependent Variable: ROE
Method: Panel Least Squares
Date: 02/26/23 Time: 15:05
Sample: 2012 2021
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.347368	0.050989	6.812589	0.0000
CR	0.004677	0.014159	0.330314	0.7432
DER	0.068792	0.030806	2.233072	0.0322

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.058370	R-squared	0.986221
Mean dependent var	0.449878	Adjusted R-squared	0.984194
S.D. dependent var	0.503589	S.E. of regression	0.063311
Akaike info criterion	-2.544025	Sum squared resid	0.136283
Schwarz criterion	-2.290693	Log likelihood	56.88051
Hannan-Quinn criter.	-2.452428	F-statistic	486.6966
Durbin-Watson stat	1.854539	Prob(F-statistic)	0.000000

In table 6 you can see the results of the Hausman test for the variables Current Ratio and Debt To Equit Ratio on Return On Equity that the Profitability (Prob) Cross Section F value is 0.8049 > 0.05, so Ho is accepted and Ha is rejected, which means using the Random Effect Model.

Table 7 Lagrange Multiplier Test

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	154.2078 (0.0000)	5.387209 (0.0203)	159.5950 (0.0000)
Honda	12.41804 (0.0000)	-2.321036 (0.9899)	7.139662 (0.0000)
King-Wu	12.41804 (0.0000)	-2.321036 (0.9899)	9.593823 (0.0000)
Standardized Honda	18.71359 (0.0000)	-2.236609 (0.9873)	6.023799 (0.0000)
Standardized King-Wu	18.71359 (0.0000)	-2.236609 (0.9873)	10.48745 (0.0000)
Gourieroux, et al.	--	--	154.2078 (0.0000)

In table 7 it can be seen that the P Value (Prob. Cross Section Brusch-Pagan) is indicated by the number below, namely 0.0000 < 0.05 so that the Lagrange Multipiler Test shows that Ho is rejected and Ha is accepted, which means using the best estimation method, namely the Random Effect Model.

Partial Test

Table 8 Hipothesis test with Random Effect Model

Dependent Variable: ROE
Method: Panel EGLS (Cross-section random effects)
Date: 02/26/23 Time: 14:58
Sample: 2012 2021
Periods included: 10
Cross-sections included: 4
Total panel (balanced) observations: 40
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.346193	0.391415	0.884465	0.3822
CR	0.004414	0.014153	0.311903	0.7569
DER	0.069963	0.030754	2.274916	0.0288

Effects Specification	S.D.	Rho
Cross-section random	0.776168	0.9934
Idiosyncratic random	0.063311	0.0066

Weighted Statistics

Root MSE	0.059588	R-squared	0.127888
Mean dependent var	0.011600	Adjusted R-squared	0.080746
S.D. dependent var	0.064621	S.E. of regression	0.061957
Sum squared resid	0.142031	F-statistic	2.712860
Durbin-Watson stat	1.780230	Prob(F-statistic)	0.079541

Unweighted Statistics

R-squared	0.113300	Mean dependent var	0.449878
Sum squared resid	8.769866	Durbin-Watson stat	0.028831

a. The Effect of Current Ratio on Return On Equity

The results of partial panel data regression analysis hypothesis testing show a t-value of 0.311903 with a significance level of 5%, while to find the t-table with the number of samples (n) = 40, the number of variables (k) = 3 Df = n-k = 40 – 3 = 37 then the t-table is 2.02619. Thus the t-count is 0.311903 < t-table 2.02619. so H0 is accepted and H1 is rejected, then the probability value of the Current Ratio is greater than the constant 0.7569 > 0.05 so H0 is accepted and H1 is rejected. So it can be concluded that the Current Ratio has no effect and is not significant on Return on Equity.

b. The Influence of Debt To Equity Ratio on Return On Equity

The results of the partial panel data regression analysis hypotensive test show a t-count of 2.274916 with a significance level of 5%, while to find the t-table with the number (n) = 40, the number of variables (k) = 3 Df = n-k = 40 – 3 = 37 then the t-table is obtained, namely 2.02619. So 2.274916 > t-table 2.02619 so H0 is rejected. H1 is accepted, then the profitability value of Total Debt To Equity Ratio is smaller than the constant 0.0288 < 0.05 so H0 is rejected and H1 is accepted. So it can be concluded that the Debt To Equity Ratio has a significant and influential effect on Return On Equity.

Simultaneous Test (F-Test)

The results of simultaneous panel data regression analysis hypothesis testing show an f-value of 2.712860 with a significance level of 5%. Meanwhile, to find the f-table with the number (n) = 40, number of variables (k) = 3 Df = n-k = 40 – 3 – 1 = 36, the f-table is 3.259. Thus, the f-count result is smaller than the f-table 2.712860 < 3.259, so it can be concluded that H0 is accepted and H1 is rejected. but it is also shown that the probability value is 0.079541 > 0.05, so it can then be concluded that Ho is accepted and H1 is rejected. So it can be concluded that Current Ratio and Debt To Equity Ratio together have no effect on Return On Equity.

Conclusion

Current Ratio (CR) partially has no significant effect on Return On Equity (ROE). Debt To Equity Ratio (DER) partially has a significant effect on Return On Equity (ROE). Lastly, the Current Ratio and Debt to Equity Ratio together have no effect on Return On Equity.

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