THE DETERMINANTS OF STOCK RETURN OF FOOD AND BEVERAGE COMPANIES IN INDONESIA

AN UNDERGRADUATE THESIS

Arranged and submitted to fulfill one of the requirements to achieve a bachelor's

degree in the Accounting Study of International Program at the Faculty of



INTERNATIONAL PROGRAM FACULTY OF BUSINESS AND ECONOMICS UNIVERSITAS ISLAM INDONESIA YOGYAKARTA

DECLARATION OF AUTHENTICITY

Herein I declare the originality of the thesis, I have not presented someone's work to obtain my university degree, nor have I presented anyone else's words, ideas, or expression without acknowledgement. All quotation is cited and listed in the bibliography of the thesis. If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequences.

Yogyakarta, February 2, nd 2022



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APPROVAL PAGE

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ABSTRACT

This study aims to determine the effect of debt to equity ratio, return on assets, earnings per share, and current ratio on stock returns in food and beverage companies listed on ISSI in 2017-2020. This study uses quantitative methods with secondary data that is processed and obtained from the Indonesian Stock Exchange (IDX).

The population in this study are food and beverage companies registered in the Indonesia Shariah Stock Index (ISSI). The sample in this company is 17 food and beverage companies. Purposive sampling method was used to get the research sample. Data analysis was carried out by classical assumption test, and hypothesis testing by multiple regression method.

The results of this study reveal that the Debt to Equity Ratio and Earning Per Share have no and significant effect on stock returns, while Return On Assets and Current Ratio affect stock returns.

Keywords: Stock Return, Debt To Equity Ratio (DER), Earning Per Share (EPS), Return On Assets (ROA), and Current Ratio (CR)

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh debt to equity ratio, return on asset, earning per share, and current ratio terhadap return saham pada perusahaan food and beverage yang terdaftar di issi pada tahun 2017-2020. Penelitian ini menggunakan metode metode kualitatif dengan data sekunder yang diolah dan diperoleh dari Indonesian Stock Exchange (IDX).

Populasi dalam penelitian ini adalah food and beverage companies yang terdaftar di indonesia shariah stock index (ISSI). Sample dalam perusahaan ini adalah 17 perusahaan food and beverage companies dalam waktu empat tahun. Data-data perusahaan di Indeks Saham Syariah Indonesia (ISSI) dilakukan dengan metode purposive sampling. Analisis data dilakukan dengan uji asumsi klasik, pengujian hipotesis dengan metode regresi berganda.

Hasil dari penelitian ini menunjukkan bahwa Debt to Equity Ratio dan Earning Per Share tidak berpengaruh dan signifikan terhadap return saham. Sedangkan Return On Asset and Current Ratio berpengaruh terhadap return saham.

Kata kunci : Return Saham, Debt To Equity Ratio (DER), Earning Per Share (EPS), Return On Asset (ROA), dan Current Ratio (CR)

CHAPTER 1

INTRODUCTION

1.1 Background

In this era of globalization, many people already understand the existence of the capital market. The development of the capital market from year to year has increased. The more people who understand the existence of the capital market now can cause investors to switch from the banking sector to the capital market. In investing, an investor needs a variety of information related to the capital market so that there are no mistakes in predicting the results of their investment in the capital market. The capital market is one of the alternative sources of fast funding through buying and selling long-term financial instruments. Therefore, many companies rely on the capital market to fund their business.

The capital market is an option for institutions or companies as a means of investment activities (Nia, 2020) .The capital market can also be interpreted as a market for traders of securities such as stocks or bonds to meet (Mas et al., 2020) . In Indonesia, the capital market is often known as a combination of the Jakarta Stock Exchange (JSX) and the Surabaya Stock Exchange (BES) which later became the IDX or the Indonesia Stock Exchange on October 30, 2007. In the country's economy, the capital market has an economic function and a financial function. One example of the functions of the capital market in the economic environment is corporate dividends, company performance, and financial reports (Machmuddah et al., 2020). In relation to one of the capital market products, which is shares, shares are certificates that show that a company and its shareholders have rights to the company's assets and income. To issue a number of shares is an option for company management to obtain source funding. Shares are divided into two, namely Islamic shares and non-Sharia shares. In the literature there are no terms or differences between Islamic shares and non-Sharia shares, it is said that shares become sharia when the shares are issued by a company whose business activities are in the halal field and the intention to purchase shares is for investment, not speculation.

In investing, investors hope that by buying shares, they can receive dividends (profit sharing) every year and receive capital gains when the shares are resold. But at the same time, they too must be prepared to take risks if the opposite happens. Ratio analysis is a tool used to help analyze the company's financial statements so that the weaknesses and strengths of a company can be known. Consequently, the possibility of profit obtained by investors increases and has an impact on increasing stock prices, which can be seen from the financial performance which is declared to be good. However, if the company's performance is declared poor, investors tend to sell their shares. When the offer increases, it can lead to a decrease in stock prices and affect the decline in stock returns (Juliana et al., 2019).

This study research makes use of the Indonesian Sharia Stock Index (ISSI) as the research object. This is because the Indonesian Sharia Stock Index (ISSI) is in accordance with Islamic law and because the majority of the Indonesian population is Muslim. It is also believed that this index accommodates investment sharia in Islam. The Indonesian Sharia Stock Index (ISSI) is a composite index and reflects Islamic stocks listed on the Indonesia Stock Exchange (IDX). ISSI is an indicator of the performance of the Indonesian Islamic stock market. The existence of the Indonesian Sharia Stock Index (ISSI) complements the existing sharia index, namely the Jakarta Islamic Index (JII).

The researcher chooses manufacturing companies in the food and beverage sub-sector because this sector is the foundation and makes a major contribution to the growth of the industrial manufacturing sector in Indonesia. In addition, the food and beverage sub-sector is very much needed by the community in their daily lives. For example, food and beverages that are needed by the community, such as noodles, milk, cooking oil, flour, soy sauce, sauce, syrup, snacks, etc. The food and beverage sub-sector, especially Domestic Investment (PMGN) grew positively in 2018 by 7.53% compared to the previous year. Investment in the manufacturing industry recorded a growth of 17.28 percent in January-September 2021. Investment flows into the manufacturing industry in the first nine months of 2021 amounted to Rp.236.8 trillion, up from the same period in 2020 which was valued at Rp.201.9 trillion (Bisnis.com, 2021).

Fundamental factors are one of the ways how investors usually value companies. Of the many fundamental factors, an investor usually uses several ratios to determine the condition of a company such as return on assets, current ratio, debt to equity ratio, and earnings per share. Return on Assets (ROA) is used to see the extent to which the investment that has been invested is able to provide a return of profits in accordance with what has been expected. Shareholders often use the Debt to Equity Ratio (DER) to see the company's financial performance and the level of use of debt to equity owned. Current ratio is to help the management of a company to measure the company's short-term financial capability. According to Darmadji & Fakhruddin in Kurniawan (2021) earning Per Share (EPS) is a ratio that shows the share of profit for each share. EPS describes the company's profitability which is reflected in each share.

The previous studies shows how simultaneously Return On Asset, Return On Equity, Earning Per Share and Price Earning Ratio affect stock returns in all transportation sub sector companies (Mudzakar & Wardanny, 2021). However, Return on Assets and Debt to Equity Ratio have no significant effect on stock returns, Total Asset Turnover has a positive and significant effect on Stock Returns in Property and Real Estate companies listed on the Indonesian Stock Exchange (IDX) in 2015-2019 (Kurniawan, 2021).

Based on this explanation, this research study is intended to investigate **The Determinants of Stocks Return on Food and Beverage Companies in Indonesia.** With the aim of knowing the future prospects regarding the stock prices of food and beverage companies on IDX when viewed from the company's Return On Asset, Debt to Equity Ratio, Current Ratio, and Earning Per Share.

1.2 Problem Formulation

Based on the background of the problem above, the main problems in this research are formulated as follows:

- 1. Does the Debt Equity Ratio affect the stock returns of Food and Beverage companies on the 2017-2020 Indonesian Sharia Stock Index?
- 2. Does Return On Assets affect the stock returns of Food and Beverage companies on the 2017-2020 Indonesian Sharia Stock Index?
- 3. Does Earning Per Share affect the stock returns of Food and Beverage companies on the 2017-2020 Indonesian Sharia Stock Index?
- 4. Does the Current Ratio affect the stock returns of Food and Beverage companies on the 2017-2020 Indonesian Sharia Stock Index?

1.3 Research Objectives

Based on the formulation of the problem that has been stated, the objectives of this study are:

1. To analyze the effect of Debt Equity Ratio on Stock Return of Food and Beverage Companies on the Indonesian Sharia Stock Index 2017-2020

2. To analyze the effect of Return On Assets on Stock Return of Food and Beverage Companies on the Indonesian Sharia Stock Index 2017-2020

3. To analyze the effect of Earning Per Share on Stock Return of Food and Beverage Companies on the Indonesian Sharia Stock Index 2017-2020 4. To analyze the effect of Current Ratio on Stock Returns of Food and Beverage Companies on the Indonesian Sharia Stock Index in 2017-2020

1.4 Research Benefits

This research provides benefits theoretically and practically. Theoretically it would make a significant contribution to the field of accounting, especially the factors of affecting stock returns. Furthermore, it can be a reference for other researchers to conduct further research.

Practically, companies and investor may take advantage of the research findings. Companies may use them as basis for improving company performance, so as to increase the company ability to earn more profits which in turn attract investors. The research findings can also be used by investors as a consideration in decision making, to choose or determine which company to investing by analyzing the company's profitability ratios displayed in the financial statement for reducing the risk of loss and earn good stock returns.

1.5 Systematics of Writings

CHAPTER I: INTRODUCTION

Chapter I consists of study background, research problem formulation, research objectives, research limitation and research contribution of the research.

CHAPTER II: LITERATURE REVIEW

Chapter II presents theories related to the research topic, and the previous research as an overview for this research and the research hypothesis.

CHAPTER III: RESEARCH METHOD

Chapter III contains the population and sample used in this research, explanation of research variables such as independent, dependent, input and output variables, and how the data are collected and analyzed.

CHAPTER IV: DATA ANALYSIS AND DISCUSSION

Chapter IV consists the process and the result of the data that previously have been collected and analyzed by using the proposed research method which are panel data regression model selection, classic assumption test, and significant test.

CHAPTER V: CONCLUSION

Chapter V presents the conclusions and recommendations for future research.



CHAPTER II

LITERATURE REVIEW

2.1 Theoretical basis

2.1.1 Signaling Theory

Signaling theory was developed by Ross (1977), stated that Signaling theory describes how the company is willing to share its information with external parties or interest parties. Signaling theory explains that good financial statements indicates the company has been operating well. This theory is in line with the dividend policy that comes from one of the management policies. With this management policy, it is hoped that it will be able to provide a signal to investors so that it can provide benefits to investors as a reference for them to consider in making investment decisions. Before and after in making an investment, there are many things that must be considered by investors. The theory serves to provide convenience for investors to develop their shares in determining the direction or prospects of the company going forward.

The company's impetus in providing information is because there is information asymmetry between the company and outsiders because the company knows more about the company and its future prospects than outside parties (investors and creditors). Lack of information about the company causes them to protect themselves by charging a low price for the company. In line with Goodfrey in Sugiyanto (2021) information is one of the important elements for business people and investors because the information presents records in the form of conditions in the past, present, and future.

A company can increase its value by reducing information asymmetry. One way to reduce information asymmetry is to give signals to outsiders such as creditors or investors. With the asymmetry value, it is hoped that it will trigger a signal to investors through management policies that are very important. Then the signal will provide investors' views on the company's prospects. In this case, the reduction of asymmetry for investors or creditors is related to signaling theory. A signalling theory is related to a signal derived from management policy, one of which is dividend policy. The signal is meant to offer investors with information on how they perceives the company's future. The policy is intended to send a message to investors (as third parties) about the company's prospects and to be beneficial to investors in the investment decision-making process. This is in line with Brau and Carpenter in Puspitaningtyas (2019) when the reduction of information asymmetry for investors is still influenced by the quality of the signals obtained by investors in their ability to analyze information.

2.1.2 Debt to Equity Ratio (DER)

DER is a leverage ratio that explains the source of operational funds used by the company (Husnan, 2005). Leverage ratio is a ratio used to estimate how much of a company's assets are financed by outside parties or debt. Companies with high leverage ratios will bear the risk of large losses when the economy is down. This also does not exclude the possibility that when the economy is in a good state or condition, the company also has the opportunity to earn big profits. Conversely, a low leverage ratio will still have a small risk of loss when the economy declines, but the company will earn low profits when economic conditions improve. DER is one measure of leverage ratio that can be defined as the level of debt used as a source of corporate financing (Utami & Darmawan, 2019).

For creditors, larger ratio means smaller profit obtained because the greater the risk that will be borne by the failure that may occur in the company. This ratio provides a general indication of financial viability as well as corporate risk. Companies with stable cash flow usually have a higher ratio than the less stable cash ratio (Hapsoro & Husain, 2019)

2.1.3 Return on Assets (ROA)

ROA is a ratio used to measure the company's effectiveness in realizing profits by utilizing owned assets, comparing net income after tax to average total assets (Mulchandani et al., 2019). ROA is one of the ratios that are most often highlighted because it measures how effective a company is in generating economic resources to create profits from assets that have been invested in the company. Return on Assets is obtained when comparing net profit after tax to total assets. A positive return is when the total assets used can generate profits when used for company operations loss when using total assets.

The higher this ratio, the better the productivity of assets in obtaining net income. This will further increase the attractiveness of the company in the eyes of investors. Such an attractiveness originates from the greater rate of return or dividends. Consequently, this will also have an impact on the company's share price in the capital market, ROA affects a company's share price. The greater the ROA, the more efficient the users of assets will be, so that it will increase profits. Large profits will attract investors because the company has a higher rate of return. The increased return on assets shows how well assets are managed by the company to bring profit for every one dollar of assets that have been invested in the company (Atidhira & Yustina, 2017).

2.1.4 Earning Per Share (EPS)

According to Darsono in Nugraha (2020), earning Per Share is a measure used to measure the company's performance in determining the number of profits earned by shareholders. A low ratio means that management has not succeeded in satisfying shareholders. Conversely, with a high ratio, the welfare of shareholders increases. That is why the earnings per share ratio can be a benchmark for measuring the success of management in achieving profits for shareholders. Generally, the calculation of EPS uses the basis of year-end (audited) financial statements, but can also use semi-annual financial reports, or quarterly financial reports. In practice, EPS is calculated by dividing net income by the weighted average number of common shares outstanding during the year.

2.1.5 Current Ratio (CR)

According to Kasmir in Widiana & Yustrianthe (2020), 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 as a whole. The calculation of the

current ratio is the comparison of current assets with current liabilities. The higher the Current Ratio, the better the guarantee for short-term creditors. It can be interpreted that every company will be able to pay off its short-term debts. If the current ratio is getting bigger, it might have a negative effect on the capacity to earn profits. This causes some working capital not to rotate and experience unemployment.

2.1.6 Financial Statement

Financial statement is process that aims to evaluate the current and past financial position and results of operation of an enterprise, with the primary objective of determining the best possible estimate and predictions about future conditions and performance. Financial statements can be used to evaluate the past and current financial position of the company's operating results, with the main objective of providing possible estimates and predictions about future performance. In general, financial statements are used by investors, creditors, and parties related to the interests of evaluating company performance.

According to Prayoga in Santoso et al., (2019) basically, financial statements are a source of information for investors as a basis for consideration in making investment decisions and also as a means of management accountability for the resources that have been entrusted to them. Financial reports are one of the media used for the analysis of the management of corporate financial statements globally to diagnose the company's overall operational performance based on a comparison of the existing financial data in the financial statements (balance sheet, income statement, cash flow statement). Information sourced from the report finance is useful for management, creditors, and investors. In the financial statements, there are performance, financial position, and changes in a financial position which act as entities that provide benefits in the design of economic decisions. In general, the objectives of the financial statements are as follows:

1) Providing cash information regarding the company's financial position in a certain period

2) Providing financial information regarding the company's operating results during a certain accounting period

3) Providing information that can help interested parties to assess the condition and potential of a company

4) Providing other important information that is relevant to the needs of parties with an interest in financial statements.

2.1.7 Stock Return

Return is the level of profit obtained by investors from investment. Returns can be in the form of realized returns that have occurred or expected returns that have not yet occurred but are expected to occur in the future. Without the benefits that can be enjoyed from an investment, of course, investors do not invest. Thus, every investment, both short-term and long-term, has the main goal of getting a profit called return, either directly or indirectly.

Stock return is the result of profit or loss that comes from stock trading within a certain period of time and investment. According to Tandelilin in (Julianto & Syafarudin, 2020) stock returns are one of the factors used to motivate investors to invest and also become one of the rewards for investors' courage to take risks on the investments that have been made. The way to calculate stock returns is to calculate the difference between the current period's stock price and the previous period's stock price, compared to the previous period's stock price (Jogiyanto, 2017). If the stock return is positive, it means that the investor gets a gain, but on the other hand, if the stock return is negative, the investor suffers a loss. Therefore, it is recommended that the investors have the power of stock movement analysis in order to find out the information of when the right time for buying and selling the shares they own (Hayati et al., 2019).



2.2 Previous Research

There are several researchers who have conducted research on the effect of Return on Assets (ROA), Debt to Equity Ratio (DER), and Earning Per Share (EPS) on stock returns. The results will be used as reference and comparison materials in this study :

- Bustani (2021) used the population of a sub-sector of food and beverage companies, totaling 12 companies for the 2014-2018 period. The results show that Earning Per Share (EPS), Price to Book Value (PBV), and Dividend Payout Ratio (DPR) influenced the stock price on the Indonesia Stock Exchange for the Food and Beverage sub-sector from 2014-2018.
- 2. Hayati (2019) used quantitative data in the form of financial statements for the 2014-2018 period. From eight Sharia-Based Manufacturing companies listed on IDX. The results show that CR, DER, and ROA jointly had a significant effect on Stock Prices on Sharia-based Manufacturing companies in Indonesia Stock Exchange 2014-2018 period.
- 3. Research conducted by Mukhyi (2021) investigated manufacturing companies for the period 2017-2019 which are registered in the Indonesia Sharia Stock Index and used the regression technique with Structural Equal Model Partial Least Square (SEM-PLS). The results of this study are all hypothesis were accepted, except for liquidity no significant effect on the risk of structure systematically rejected.
- 4. Research conducted by Kurniawan (2021) used a population of 54 Property and Real Estate companies listed on the Indonesian Stock Exchange (IDX) in 2015-

2019. The method used is descriptive and quantitative statistical analysis with panel data regression, the data is processed with e-views 10. The results of this study are Return on Assets and Debt to Equity Ratio had no significant effect on stock returns, Total Asset Turnover had a positive and significant effect on Stock Returns.

- 5. Research conducted by Tikasari & Surjandari (2020) used 12 of 84 companies listed on the Indonesian Stock Exchange from 2012-2018. The method used in this study is purposive sampling techniques and data analysis method using panel regression analysis processed with Microsoft Excel software and views 10. The results of this study are EVA and NPM had a positive and significant effect on stock returns, while CR, DER and EPS did not effect on stock returns.
- 6. The research conducted by Mudzakar & Wardanny (2021) used a population of all transportation sub sector companies with a total of 12 companies and 48 data observations on the 2015-2018 Indonesia Stock Exchange list. Using secondary data and the method used is explanatory. The analysis method used is panel data analysis and tested using eviews 10. The results of this study are some ROA and EPS had no effect on stock returns, while ROE and EPS had an effect on stock returns. Simultaneously ROA, ROE, EPS and PER affected stock returns.
- 7. Research conducted by Wijaya & Sedana (2020) used the population in the construction and building sub-sector companies listed on the Indonesia Stock Exchange in 2014-2018. This research made use of multiple linear regression technique. The results obtained from this study are ROA and quick ratio had a

positive and significant effect on stock returns, while exchange rates had a negative and significant effect on stock returns.

- Research conduct by Santoso (2019) used the population of 39 companies in LQ-45 Index in Indonesia Stock Exchange 2015-2019. This research employed multiple linear regression technique. The results of study shows that Current Ratio influenced stock returns.
- 9. Research conducted by Widiana & Yustrianthe (2020) a sample of 20 BUMN companies on the Indonesia Stock Exchange in 2015-2019. This research used purposive sampling method. The results obtained from this study are that the negative debt ratio had no significant effect on stock returns, while the current ratio and cash ratio were proven to be positive and significant on stock returns in state-owned companies.

2.3 Hypothesis

2.3.1 Effect of Debt to Equity Ratio (DER) on Stock Returns

The way to calculate this ratio is by comparing all debts, which include current debt to all equity. DER can be used by companies in measuring the balance to meet all debts in the company with their own capital. The higher the DER, the smaller the capital used compared to debt. Research conducted by Kurniawan (2021) shows that the Debt to Equity Ratio had no significant effect on stock returns. Based on the description above, the research hypothesis is proposed as follows:

H1: Debt to equity ratio has negative effect on stock returns.

2.3.2 Effect of Return On Asset (ROA) on Stock Returns

ROA is a ratio used to measure the company's effectiveness in realizing profits by utilizing owned assets, comparing net income after tax to average total assets (Mulchandani et al., 2019) .The higher this ratio, the better the condition of the company and vice versa, low return on assets can be caused by the use of large debt, in this case, high-interest expenses will cause low net income (Brigham & Houston, 2018). Research conducted by Mudzakar & Wardanny (2021) shows that how simultaneously Return On Assets affected stock returns in all transportation sub sector companies. Based on the description above, the research hypothesis is proposed as follows:

H2: Return on assets has a positive effect on stock returns.

2.3.3 Effect of Earning Per Share (EPS) on Stock Return

Khairudin and Wandita in Bustani (2021) said that based on signaling theory, the company's Earning Per Share (EPS) number in the financial statements can give investors the right news signals. An explanation of EPS is very helpful and is the first step for investors to learn or know because they can review the company's profit opportunities in the future. If the EPS is higher, the more investors are interested and the more investors will buy shares and this can lead to an increase in the company's stock price. Research conducted by Mudzakar & Wardanny (2021) shows that how simultaneously Earning Per Share affected stock returns in all transportation sub sector companies. Based on the description above, the research hypothesis is proposed as follows:

H3: Earning per share has a positive effect on stock returns.

2.3.4 Effect of Current Ratio (CR) on Stock Returns

Current Ratio is used by companies to measure the company's ability to pay its short-term obligations, it can be seen through the extent to which current assets can guarantee the smooth running of its debts. The element used in calculating the current ratio is by comparing the total current assets and current liabilities. Research conducted by Santoso et al., (2019) shows that Current Ratio jointly had a positive and significant effect on Stock Return of BUMN companies on the Indonesia Stock Exchange in 2015-2019. Based on the description above, the research hypothesis is proposed as follows:

H4: Current ratio has a positive effect on stock returns.

2.4 Conceptual Framework

The research problems being discussed and the research objectives to be achieved can be formulated to be the following framework.



CHAPTER III

RESEARCH METHODS

3.1 Population and Sample

This research study makes use of secondary data, the population used is food and beverage companies listed on the Indonesia Sharia Stock Index (ISSI) in 2017-2020. The sampling method was carried out using the purposive sampling technique. Purposive sampling is the sampling based on the researcher's choice of any aspect and in accordance with the research objectives with certain criteria.

Documentation data was employed by collecting, recording, and analyzing data on food and beverage companies listed on the Indonesia Sharia Stock Index from 2017-2020. The research sample used is in the form of financial statements for the period 2017 to 2020. The data used are published financial reports from the Indonesia Stock Exchange through the websites <u>www.idx.com</u>. The data needed in this study is data that is in accordance with the criteria and needs. The following are several criteria in selecting the research sample

- 1. Food and beverage companies listed on the Indonesia Sharia Stock Index (ISSI)
- 2. Food and beverage companies that published complete financial reports for the period 2017-2020
- 3. Financial statements issued as of December 31 from food and beverage companies

3.2 Data Collection Techniques

The data were taken from www.idx.com in the form of financial statements for the period 2017 to 2020. The data needed is in accordance with the criteria and needs.

3.3 Data Collection Results

Based on the criteria previously mentioned, the selected sample in this study was 17 companies. Here is a sample list of companies:

No	Kode	Nama Perusahaan
1	ADES	Akasha Wira International Tbk.
2	AISA	FKS Food Sejahtera Tbk.
3	BUDI	Budi Starch & Sweetener Tbk.
4	САМР	Campina Ice Cream Industry Tbk.
5	СЕКА	Wilmar Cahaya Indonesia Tbk.
6	CLEO	Sariguna Primatirta Tbk.
7	FISH	FKS Multi Agro Tbk

8	HOKI	Buyung Poetra Sembada Tbk.
9	ICBP	Indofood CBP Sukses Makmur Tbk.
10	IIKP	Inti Agri Resources Tbk.
11	INDF	Indofood Sukses Makmur Tbk.
12	MYOR	Mayora Indah Tbk.
13	ROTI	Nippon Indosari Corpindo Tbk.
14	SKBM	Sekar Bumi Tbk.
15	SKLT	Sekar Laut Tbk.
16	STTP	Siantar Top Tbk.
17	ULTJ	Ultra Jaya Milk Industry & Trading Company Tbk.
	عر	

3.4 Research Variables

3.4.1 Independent Variables

1. Current Ratio (CR)

Current ratio is one of the ratios used to measure the company's ability when the company fulfills short-term obligations. According to Hery in Amalia (2020) current ratio are calculated as the quotient between current assets and total current liabilities.

 $CR = \frac{Current \, Asset}{Current \, Liabilities}$

2. Debt to Equity Ratio (DER)

According to Putra & Kindangen in Kurniawan (2021) Debt to equity ratio is calculated using a comparison of all debt, which includes current debt to all equity. This ratio is used to measure the extent to which the company is able to fulfill its obligations to pay debts with its own capital as collateral.

 $DER = \frac{Total \ Debt}{Total \ Equity}$
4. Return On Asset (ROA)

Return on Assets (ROA) is a calculation of profit or loss before tax using annualized calculations. This calculation aims to measure the level of profitability of assets owned by the bank (Surat Edaran Otoritas Jasa Keuangan, 2014).

 $ROA = \frac{Net \ Incme}{Total \ Asset}$

5. Earning Per Share (EPS)

According to Faleria in Nugraha (2020) Earnings per share is one of the profitability ratios, which is calculating profits with the amount reduced by the tax burden. This ratio is used to view company information when making investment decisions.

 $EPS = \frac{Net \ profit \ after \ interest \ and \ text}{Number \ of \ shares \ outstanding}$

3.4.2 Dependent Variable

1. Stock Return

The variable in this research is stock return. Stock returns are used when determining whether a stock has experienced a gain or loss compared to the previous price because there is inherent uncertainty in every investor who puts their money at stake (Beers, 2019).

Total Stock Return = $\frac{Ending \ price-Starting \ price}{Starting \ price} x \ 100$

3.5 Data Analysis Method

3.5.1 Panel Data Regression Model

Data panel regression is a regression model combining data cross section and time series into the data called panel pooled data. There are three regression models commonly used namely common effects model, fixed effects model, and random effects model.

a. Common Effect Model

The common effect model is the simplest approach called CEM or pooled least square estimation. The simplest technique for estimating panel data is simply to combine time series and cross section data into Pooled Least Square (OLS), also known as CEM (Sriyana, 2014).

b. Fixed Effect Model

The fixed effect model is a regression model which is estimated that there are different effects between individuals. Then these differences can be accommodated through differences in the intercept. This variable can be estimated by including a dummy variable to explain that when there is a difference in intercept. The fixed effects model has a weakness, namely it is possible that the model does not match what actually happened (Sriyana, 2014).

c. Random Effect Model

The random effects model is also known as the Error Component Model (Sriyana, 2014). The random effect model is a specific effect that occurs from each individual, and it will be treated as one of the component errors that are random.

3.5.2 Panel Data Regression Model Selection

a. Chow Test (F-Statistical Test)

The Chow test, also known as the F-Statistical, is a test carried out to determine the best model that is most suitable for use between the Common Effect Model and the Fixed Effect Model (J. H. Wijaya & Nugraha, 2020).

Ho : Common Effect Model

H1 : Fixed Effect Model

If the probability value is F> 0.05, then the first hypothesis (H1) is rejected and the model selected and in accordance with the regression data panel is the Common Effect Model. Meanwhile, if the profitability value is F<0.05, the null hypothesis (Ho) is rejected and the model chosen is the Fixed Effect Model.

b. Hausman Test

Hausman test is a test used to determine the appropriate model between the Fixed Effect Model or the Random Effect Model.

Ho : Fixed Effect Model

H1 : Random Effect Model

If the ChiSquare profitability value is > 0.05, the null hypothesis (Ho) is rejected and the model used is the Random Effect Model. Meanwhile, if the profitability value of ChiSquare <0.05 then the first hypothesis (H1) is rejected and the model used is Fixed Effect Model.

c. Lagrange Multiplier Test

The Langrange multiplier test is a test carried out to select the appropriate model using panel data regression between the Common Effect Model and the Random Effect Model (Widajatun et al., 2019).

Ho : Common Effect Model

H1 : Random Effect Model

If the profitability value <0.05, the null hypothesis (Ho) is rejected and the model used is the Random Effect Model. On the other hand, if the profitability value is > 0.05, then the first hypothesis (H1) is rejected and the appropriate model to use is the Common Effect Model.

3.5.3 Classic Assumption Test

Classical assumption test is a step that must be done before performing multiple linear regression analysis. The purpose of this test is that researcher gets a good regression model by testing the return on assets, current ratio, debt to equity ratio, and earnings per share on stock returns.

a. Autocorrelation Test

Autocorrelation test is used to check whether there is a relationship between the independent variable and the dependent variable. This is used to ascertain whether there is an indication of autocorrelation in the model (Widajatun et al., 2020).

Ho: There is no autocorrelation

H1: There is autocorrelation

If the probability value is <0.05, then there is autocorrelation. On the other hand, if H1 is rejected, then there is no autocorrelation. In this study, autocorrelation used is the Durbin Watson test (DW test). The DW test is one of the most widely used tests to determine the presence or absence of autocorrelation. The value of dakan is in the range of 0 to 4. If d is between 1.54 and 2.46, then there is no autocorrelation,

if the value of d is between 0 to 1.10 it can be concluded that there is a positive autocorrelation.

b. Normality Test

The normality test is used to test whether in the regression model, the dependent variable and the independent variable both have a normal or abnormal distribution (D. P. Wijaya & Sedana, 2020). In the Eviews program, normality testing was carried out using the Jarque-Bera test. The Jarque-Bera test has a chi-square distribution with two degrees of freedom. If the result of the Jarque-Bera test is greater than chi square in %, then reject the null hypothesis which means that it is not normally distributed. If the result of the Jarque-Bera test is less than the chi square value in %, then the hypothesis is accepted.

c. Multicolinearity Test

The multicollinearity test is used to test whether there is a correlation between the independent variable regression models (D. P. Wijaya & Sedana, 2020). If the independent variables are correlated with each other, then these variables are not orthogonal. Multicollinearity can be seen from the Tolerance value and the Variance Inflation Factor (VIF) value.

d. Heteroscedasticity test

Heteroscedasticity test is used to test whether there is a similarity of residual variance from one observation to another in the regression model(D. P. Wijaya & Sedana, 2020). A good regression model is one where there is homoscedasticity or no heteroscedasticity.

3.5.3 Significant Test

a. F Test (Simultaneous Significance Test)

F test is a test used to test the effect of independent variables in research that is shared with supporting variables (Astuty, 2017). The chosen significance level is 5% ($\alpha = 0.05$) or with a confidence level of 95% of the degree of freedom (dk) = n - k - 1 to obtain the value as the boundary for the acceptance and rejection of the hypothesis.

b. T Test (Partial Test)

Partial test is a test used to test the partial regression relationship which aims at knowing significantly whether there is an influence of individual independent variables on the dependent variable, assuming other variables are constant (Nugraha et al., 2020). The appropriate significance is 5% ($\alpha = 0.05$) or through a 95% confidence level of degrees of freedom (dk) = n - k - 1 in order to get a value as the boundary area to accept or reject the hypothesis.

c. Coefficient of Determination

The value of the coefficient of determination is zero to one and the coefficient of determination is used to identify the model's ability when explaining the dependent variable. This test is used when examining more than two independent variables. Based on Iqbal in Reskita & Purwanto (2019) the coefficient

of determination is used to explain the proportion of the influence of all independent variables on the dependent variable or explain the effect of the independent variable on the dependent variable.



CHAPTER IV

RESEARCH RESULTS AND DISCUSSION

A. Research Results

1. Overview of Research Objects

a. Indonesian Sharia Stock Index (ISSI)

The Indonesian Sharia Stock Index (ISSI) is a new sharia index established by the Indonesia Stock Exchange (IDX). On May 12, 2011 ISSI was creation, before its creation, there was already another sharia index, namely the Jakarta Islamic Index (JII). However, the JII is still insufficient to accommodate the increasing number of sharia indices registered on JII, only the 30 largest sharia indices. ISSI constituents are all sharia stocks listed on the IDX and included in the Sharia Securities List (DES) issued by the Financial Services Authority (OJK).

Therefore, the ISSI was formed to accommodate the entire sharia index listed on the Composite Stock Price Index (IHSG). So this ISSI consists of all sharia indices in the JCI, both large and small. This is intended to facilitate and provide other options to the community and also so that people investing their money in the sharia index are not misplaced.

The objects in this study are manufacturing companies in the food and beverage sector registered on ISSI. By purposive sampling method, there are 17 companies included in this study.

1). Akasha Wira International Tbk. (ADES)

Akasha Wira International Tbk is a company engaged in the production and distribution of bottled drinking water. Bottled water is distributed under the trademarks Nestle Pure Life, which is owned by Nestle SA, and Vica Royal, its own brand. The company is listed in the Indonesian Sharia Stock Index (ISSI) with the issuer code ADES.

2). FKS Food Sejahtera Tbk. (AISA)

PT Tiga Pilar Sejahtera Food Tbk is a company engaged in trade, industry, livestock, plantation, agriculture, fisheries and services. Brands owned include Chicken 2 Telor, Mie Kremezz, Bihunku and so on. The company is listed in the Indonesian Sharia Stock Index (ISSI) with the issuer code AISA.

3). Budi Starch & Sweetener Tbk. (BUDI)

Budi Starch & Sweetener Tbk is a company engaged in the manufacture of cassava-based products. Its main products are tapioca starch, glucose, and fructose. In addition to its main products, the Company also manufactures citric acid, maltodextrin, sorbitol, modified tapioca flour, sulfuric acid, and polypropylene woven bags. The company is listed in the Indonesian Sharia Stock Index (ISSI) with the issuer code BUDI.

4). Campina Ice Cream Indutry Tbk. (CAMP)

Campina Ice Cream Industry Tbk is a company that produces ice cream products, such as ice cream sticks, ice cream cups, ice cream cones, family packaged ice cream, and ice cream cakes. This company has a CAMP code in the Indonesian Sharia Stock Index (ISSI).

5). Wilmar Cahaya Indonesia Tbk. (CEKA)

PT Wilmar Cahaya Indonesia is engaged in the manufacture of vegetable oils, tengkawang seeds, tengkawang oil and specialty vegetable oils for the food and beverage industry. This company has the CEKA code in the Indonesian Sharia Stock Index (ISSI).

6). Sariguna Primatirta Tbk. (CLEO)

Sariguna Primatirta Tbk is a company engaged in the production of bottled drinking water (AMDK) and for its corporate identity, TANOBEL FOOD. This company has the code CLEO in the Indonesian Sharia Stock Index (ISSI).

7). FKS Multi Agro Tbk. (FISH)

FKS Multi Agro Tbk is an Indonesia-based company engaged in fisheries. The scope of the Company's activities consists of the fisheries, production and trading sectors. The product range consists of food ingredients and feeds for the animal feed industry which are classified as follows: oilseed feed, corn and byproducts, corn milling by-products including corn gluten meal, corn gluten meal and dry milling products, protein-containing flour animal, poultry meal & feather meal; industrial fish and grains. This company has a FISH code in the Indonesian Sharia Stock Index (ISSI).

8). Buyung Poetra Sembada Tbk. (HOKI)

Buyung Poetra Sembada Tbk is an Indonesia-based company primarily engaged in the production and wholesale of rice products. The company markets and sells rice under the brands Topi Koki, LIMAS, BPS and Belida. In the Indonesian Sharia Stock Index (ISSI), PT Mayora Tbk is listed with the issuer code HOKO.

9). Indofood CBP Sukses Makmur Tbk. (ICBP)

The scope of activities of PT Indofood CBP Sukses Makmur Tbk includes the production of noodles and seasonings, culinary food products, biscuits, snacks, nutrition, and special foods and so on. PT Indofood CBP Sukses Makmur Tbk is a subsidiary of PT Indofood Sukses Makmur. PT Indofood CBP Sukses Makmur Tbk is listed on the Indonesian Sharia Stock Index (ISSI) with the issuer code ICBP.

10). Inti Agri Resources Tbk. (IIKP)

Inti Agri Resources Tbk is engaged in the cultivation, distribution and trading of arowana fish. The company is also engaged in the plantation sector. Its main product is Super Red Arowana, which carries the brand name ShelookRED. In the Indonesian Sharia Stock Index (ISSI), PT Mayora Tbk is listed with the issuer code IIKP.

11). Indofood Sukses Makmur Tbk. (INDF)

PT Indofood Sukses Makmur Tbk is a food producer with a wide selection of daily food products such as Indomie, Sarimi, Indomilk, Chitato and various packaged drinks, all of which are widely known by the public. Then as a public company, PT Indofood CBP Sukses Makmur Tbk has been listed on the Indonesia Stock Exchange and included in the Indonesian Sharia Stock Index (ISSI) with the issuer code INDF.

12). Mayora Indah Tbk. (MYOR)

PT Mayora Indah Tbk is a producer of the biscuit industry business. The company's innovative products include Roma, Better, Sari Gandum Sandwich, Kopiko, Energen and so on. In the Indonesian Sharia Stock Index (ISSI), PT Mayora Tbk is listed with the issuer code MYOR.

13). Nippon Indosari Corpindo Tbk. (ROTI)

Based on the Company's Articles of Association, the scope of this company is in the manufacturing, sales and distribution of bread (white bread, sweet bread, layered bread, cake and bread crumb) under the Sari Roti brand. The company is listed in the Indonesian Sharia Stock Index (ISSI) with the issuer code ROTI.

14). Sekar Bumi Tbk. (SKBM)

PT Sekar Bumi Tbk is a company engaged in the business of processing marine and land fishery products, agricultural and livestock products such as shrimp, squid, seafood meatballs, sausages and others. PT Sekar Bumi is listed in the Indonesian Sharia Stock Index (ISSI) with the issuer code SKBM.

15). Sekar Laut Tbk. (SKLT)

PT Sekar Laut Tbk is a company that manufactures crackers, tomato sauce, chili sauce, cooking and snacks. Its products are marketed under the FINNA brand. PT Sekar Laut Tbk is listed on the Indonesian Sharia Stock Index (ISSI) with the issuer code SKLT.

16). Siantar Top Tbk. (STTP)

Based on the Company's Articles of Association, the scope of activities of Siantar Top is in the snack food industry, namely noodles (such as Mie gemes, Tamiku, Fajar), crackers (such as French Fries, Twistko), biscuits (such as Goriorio, Gopotato, Go Malkist). PT Siantar Top Tbk is listed in the Indonesian Sharia Stock Index (ISSI) with issuer code STTP.

17). Ultra Jaya Milk Industry & Trading Company Tbk. (ULTJ)

The scope of this company's activities is in the food and beverage industry, and the trade sector. In the beverage sector, Ultrajaya produces various types of beverages such as liquid milk, fruit juices, teas, traditional drinks and health drinks that are processed with Ultra High Temperature technology. In the food sector, Ultrajaya produces sweetened condensed milk, powdered milk, and tropical fruit concentrates. The company is listed in the Indonesian Sharia Stock Index (ISSI) with the issuer code ULTJ.

2. Data Analysis

a. Descriptive Statistics

Descriptive Statistics contains four points to be analyzed, mean, minimum, maximum, and standard deviation to describe the data. The results of descriptive statistic of each variable are displayed below:

	CR	DER	EPS	SR	ROA
Mean	3.319985	74.26687	119.7991	0.274265	44.40005
Maximum	1.385500	0.889500	45.34500	0.074000	0.147500
Minimum	22.98600	754.5350	735.0000	5.104000	525.8060
Std. Dev.	0.000000	0.000000	-171.4700	1.565000	-90.00060
Observations	68	68	68	68	68

Table 4.1 Descriptive Statistic

Table 4.1 shows that the sample observations is 68. The first independent variable is Current Ratio (CR) that has an average value of 3.319985. The maximum value is 1.385500 and the minimum value is 22.98600, while the standard deviation is 0.000000.

The second independent variable is Debt to Equity Ratio (DER) that has an average value of 74.26687. The maximum value is 0.889500 and the minimum value is 754.5350, while the standard deviation is 0.000000.

The third independent variable is Earning Per Share (EPS) that has an average value of 119.7991 with the maximum result value is 45.34500 and the minimum value is 735.0000, whereas the standard deviation is -171.4700.

The fourth independent variable is Return On Asset (ROA), the result of this variable is an average value of 44.40005, the maximum value is 0.147500, the minimum value is 525.8060, and the standard deviation is -90.00060.

On the other hand, the dependent variable, that is stock return, shows that the mean or an average value is 0.274265, the maximum and minimum value is 0.074000 and 5.104000, and the standard deviation is -1.565000.

b. Estimasi Model Regresi Data Panel

1). Common Effect Model

In this research, the data used is panel data with the number of research objects 17 companies and the data used is 4 years. Here are the test results:

Variable	Coefficient	Std. Error	t-Statistic	Prob
С	-0.158014	0.138161	-1.143693	0.2571
DER	-0.000931	0.000578	-1.610682	0.1122
ROA	0.004932	0.001205	4.092122	0.0001
EPS	0.000219	0.000513	0.426473	0.6712
CR	0.077182	0.018962	4.070231	0.0001
R-squared	0.412607			
Adjusted R-squared	0.375312	•		
F-statistic	11.06339			
Prob (F-statistic)	0.000001			

 Table 4.2 Common Effect Model

From the output above, it can be found that the probability value that indicates a significance is ROA of 0.0001 and CR of 0.0001 or below 0.05. Based on the

Adjusted R-squared, which is 37.5%, it can be interpreted that the variable debt to equity ratio, return on assets, earnings per share, and current ratio can affect stock returns of 37.5% and the remaining 62.5% is influenced by other variables.

2). Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob
С	-0.538366	0.197916	-2.720176	0.0091
DER	5.15E-06	0.000891	0.005782	0.9954
ROA	0.002993	0.001192	2.510889	0.0155
EPS	0.002246	0.001082	2.076573	0.0433
CR	0.123590	0.026169	4.722745	0.0000
R-squared	0.678569			
Adjusted R-squared	0.541790			
F-statistic	4.961059		-	
Prob (F-statistic)	0.000003			

Table 4.3 Fixed Effect Model

From the output above, it can be seen that the probability values of the three variables that show significance are ROA of 0.0155, EPS of 0.0433, and CR of 0.0000 or below 0.05. The R square value is 0.678569 and the F-statistic is 4.961059, which means the data is significant.

3). Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob
С	-0.230227	0.159574	-1.442759	0.1540
DER	-0.000650	0.000605	-1.073985	0.2869
ROA	0.004228	0.001095	3.861482	0.0003
EPS	0.000529	0.000588	0.900185	0.3715

Table 4.4 Random Effect Model

CR	0.090859	0.019709	4.609972	0.0000
R-squared	0.407870			
Adjusted R-squared	0.370274			
F-statistic	10.84889			
Prob (F-statistic)	0.000001			

From the results of the random effect regression, it can be seen that the probabilities of the two variables DER and EPS are significant because <0.05, namely profitability ROA is 0.0003 and CR is 0.0000. The R-Square shows 0.407870 and the F-statistic is 0.000001 which means the data is not significant.

b. Selection of Regression Model

1). Chow test

Chow test is a test carried out to determine the best model that is most suitable for use between the Common Effect Model or the Fixed Effect Model.

Table 4.5 Chow Test

Effect test	Statistic	d.f	Prob
Cross-section F	2.430581	(16,47)	0.0093
Cross-section Chi-square	40.997989	16	0.0006

From the results above, the value generated in the statistical distribution of Chi square based on the processing of the calculation results using Eviews is 40.997989 with the resulting probability of 0.0006 and thus declared significant because it is

less than 0.05. So that the null hypothesis (Ho) is rejected and the model chosen is the Fixed Effect Model.

2). Hausman Test

Hausman test is a test used to determine the appropriate model between the Fixed Effect Model and the Random Effect Model.

Table 4.6 Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section random	8.693175	4	0.0692

Based on the table above, it can be seen that the Chi-square value is 8.693175 with a p-value of 0.0692 which means more than 0.05. Then the null hypothesis (Ho) is rejected and the model used is the Random Effect Model.

3). Langrange Multiplier

The Langrange multiplier test is a test carried out to select the appropriate model using panel data regression between the Common Effect Model and the Random Effect Model.

Table 4.7 Langrange Multiplier

	Test Hypothesis				
	Cross-section Time Both				
Breusch-Pagan	3.012272	1.858129	4.870400		

(0.0826)	(0.1728)	(0.0273)

Based on the results above, the Breusch-Pagan value is 0.0826, which means it is greater than 0.05. So the better estimation method is the common effect model and the first hypothesis (H1) is rejected.

4). Final model selection overview

Based on the chow test, hausman test, and LM test, the right method used to estimate the model in this equation is the common effect model method. The results of the chow test analysis show that the probability value generated is 0.0006 and thus declared significant because it is less than 0.05. So that the null hypothesis (Ho) is rejected and the model chosen is the Fixed Effect Model. The results of the Hausman test show a probability value of 8.693175 with a p-value of 0.0692 which means more than 0.05. Then the null hypothesis (Ho) is rejected and the model used is the Random Effect Model. Meanwhile, the results of the LM test show the Breusch-Pagan value of 0.0826 which means it is greater than 0.05. So the better estimation method is the common effect model. From the three tests, it can be concluded that the best method used to estimate this simultaneous equation model is the Common Effect Model.

4). Classic assumption test

a. Autocorrelation Test

Autocorrelation test is used to check whether there is a relationship between the independent variable and the dependent variable. This is used to ascertain whether there is an indication of autocorrelation in the model.

Variable	Coefficient	Std. Error	t-Statistic	Prob
С	0.009940	0.062680	0.158588	0.8745
DER	1.41E-05	0.000263	0.053448	0.9575
ROA	6.54E-05	0.000544	0.120257	0.9047
EPS	-3.31E-05	0.000232	-0.142624	0.8871
CR	-0.002994	0.008906	-0.336210	0.7379
R-squared	0.035161		10	
Adjusted R-squared	-0.059741			
F-statistic	0.370496			
Prob (F-statistic)	0.894914			
Durbin-Watson stat	1.959439			

Table 4.8 Autocorrelation Test

From the results above, it can be seen that the durbin-watson stat value is 1.959439 by looking for the DL and DU values from the number N 68 and the number of explanatory variables with a significance of 5%, the d value is between DL 1.4853 and DU 1.7335, and (4- DU) of 2.2665. It can be seen that the value of DU < DW < (4-DU) is 1.7335 < 1.959439 < 2.2665. Then it can be stated that there is no autocorrelation problem, either positive or negative autocorrelation.

a. Normality Test



Table 4.9 Normality Test

The normality test is used to test whether in the regression model, the dependent variable and the independent variable both have a normal or abnormal distribution.

b. Multicolinearity Test

The multicollinearity test is used to test whether there is a correlation between the independent variable regression models.

	Table 4.10 Multicolinearity Test				
	DER	ROA	EPS	CR	
DER	1.000000	0.495073	0.049402	-0.190142	
ROA	0.495073	1.000000	0.023861	0.108245	
EPS	0.049402	0.023861	1.000000	-0.207367	
CR	-0.190142	0.108245	-0.207367	1.000000	

From the table above, it can be seen that the correlation data between variables <10, then no multicollinearity occurs.

c. Heteroscedasticity Test

Heteroscedasticity test is used to test whether there is a similarity of residual variance from one observation to another in the regression model.

Variable	Coefficient	Std. Error	t-Statistic	Prob
С	0.234079	0.037413	6.256581	0.0000
DER	0.000271	0.000157	1.730185	0.0885
ROA	-0.000387	0.000326	-1.184862	0.2405
EPS	-0.000240	0.000139	-1.724445	0.0895
CR	0.009933	0.005135	1.934483	0.0575
R-squared	0.134822			
Adjusted R-squared	0.079890			
F-statistic	2.454352			
Prob (F-statistic)	0.054792			

Table 4.11 Heteroscedasticity Test

From the output above, it can be seen that the prob value of each X variable is more than 0.05, where DER is 0.0885, ROA is 0.2405, EPS is 0.0895 and CR is 0.0575. This shows that the regression model is homoscedastic or in other words there is no heteroscedasticity problem.

5). Significance Test

a. T Test

1. The DER variable partially has no effect on stock returns. It can be seen that the -t count of -1.610682 is smaller than the -t table of 1.996084 or the probability value is more than 0.05 namely is 0.1122 > 0.05. So DER have a negative effect on stock returns.

2. The ROA variable partially affects stock returns. It can be seen that the t count of 4.092122 is greater than the t table of 1.996084 or the probability value is less than 0.05 namely 0.0001 < 0.05. So ROA has a positive effect on stock returns.

3. EPS variable partially has no effect on stock returns. It can be seen that the t count of 0.426473 is smaller than the t table of 1.996084 or the probability value is more than 0.05 namely 0.6712 > 0.05. So EPS has positive effect on stock returns.

4. The CR variable partially affects stock returns. It can be seen that the t count of 4.070231 is greater than the t table of 1.996084 or the probability value is less than 0.05 namely 0.0001 < 0.05. Then CR has a positive effect on stock returns.

b. F Test

The F table value can be seen from the f statistic table at df 1 = k-1 or 5-1 = 4 and df2 = n-k or 68-5 = 63 with a significance of 0.05, so the f table value is 2.51. From the data above, it can be seen that the F statistic value is greater than the F table (11.06339 > 2.51). This shows that together the variables DER, ROA, EPS, and CR have an effect on profitability.

c. Coeffficient Determination

From the research results, it can be seen that the Rsquared value is 0.412607. This indicates that the independent variable is able to explain the dependent variable by 41.26% while the rest is explained by other variables outside the model.

6). Discussion of Research Results

	Hypothesis	t-Statistic	Prob	Decision
H1	Debt to equity ratio has negative effect on			Rejected
	stock returns	-1.610682	0.1122	
H2	Return on assets has positive effect on			Accepted
	stock returns	4.092122	0.0001	
H3	Earning per share has positive effect on		7	Rejected
	stock returns	0.426473	0.6712	
H4	Current ratio has positive effect on stock			Accepted
	returns	4.070231	0.0001	

Table 4.12 Summary of hypothesis testing results

Based on the Adjusted R-squared, which is 37.5%, it can be interpreted that the variable debt to equity ratio, return on assets, earnings per share, and current ratio can affect stock returns of 37.5% and the remaining 62.5% is influenced by other variables.

a. Effect of Debt to Equity Ratio (DER) on Stock Returns

Debt to Equity Ratio (DER) is a financial ratio used by companies to view and check their financial condition. Debt to Equity Ratio (DER) is often used by shareholders to determine the level of use of debt in a company. If the Debt to Equity Ratio (DER) increases, it can cause a trend that is quite dangerous for the company. Therefore a company is required to minimize the occurrence of Debt to Equity Ratio (DER). The smaller this ratio, the better, the best ratio is if the amount of capital is greater than the amount of debt. A company with a high DER can increase profits. It means the company manages to manage its finances and assets well. Increased profits will attract investors to invest, which in turn lead to rising stock prices and stock returns.

Based on the results of the regression calculation, the Debt to Equity Ratio (DER) has no significant effect on profitability. This is indicated by the value of t count < t table, t count -1.610682 is smaller than -t table of 1.996084 or probability value is more than 0.05 namely is 0.1122 > 0.05. This shows that the size of the DER cannot affect stock returns, this happens because of different considerations from various investors. Investors are more likely to use profitability ratios in assessing a company and making investment decisions. Therefore, they prioritize the amount of net profit generated by the company compared to the company's ability to pay its obligations. So that the amount of the Debt to Equity Ratio is less of a concern to investors, as because stock returns are related to how many investors are interested in investing in the company. Based on the test results, it shows that the results of this study support the results of Kurniawan (2021) showing that the Debt to Equity Ratio has no significant effect on stock returns. Thus the first hypothesis which states that the Debt to Equity Ratio has no effect on stock returns is accepted.

b. Effect of Return On Asset (ROA) on Stock Returns

From the results of the regression calculation, Return On Assets (ROA) has a significant positive effect on stock returns with a probability value of 0.0001 which is below the significance level of 0.05 and the t count of 4.092122 is greater than the t table of 1.996084. So, it can be concluded that the effect of ROA on stock returns in Food and Beverage companies in the Indonesia Sharia Stock Index is significant. This means that higher performance based on ROA value will make the stock return increase, and vice versa if the ROA value is lower, the stock return will be smaller. The higher the ROA indicates that the higher the company's ability to earn a profit or net profit. Higher profits is preferable by investors. Investors will be more interested in investing their shares in those with high ROA than companies with low ROA, which means that increasing ROA can affect and increase stock returns.

Thus, every change in ROA will be followed by a unidirectional change in stock returns in the Indonesia Sharia Stock Index. Based on the test results, it shows that the results of this study support the research conducted by Mudzakar & Wardanny (2021) proving that how simultaneously Return On Assets affect stock returns in all transportation sub sector companies. Thus, the second hypothesis which states that Return On Assets affect stock returns is accepted.

c. Effect of Earning Per Share (EPS) on Stock Return

Based on provisional assumptions in this study, it is stated that Earning Per Share (EPS) has a positive and significant effect on stock returns, but after partially testing the hypothesis, it is known that Earning Per Share (EPS) has no significant positive effect on stock returns. From the results of the regression calculation, Earning Per Share (EPS) has no significant positive effect on stock returns, it can be seen from the probability value, which is 0.6712, greater than the significance level of 0.05 and the t count is 0.426473, which is smaller than the t table of 1.996084 with a coefficient value of 0.426473. So, it can be concluded that for every 1% increase in EPS, the stock return will decrease by 0.426473%.

In this study, EPS has no significant effect on stock returns, this is because the EPS value varies and fluctuates. The value of Earning Per Share cannot be used as a reference for investors in determining the stock return to be received because the rise and fall of the EPS level does not reflect the actual condition of the company. Some investors will judge that a low EPS level indicates that the company is underperforming because it generates low profits. However, there are actually many factors that cause lower EPS. One of the causes is because several percent of EPS is used to improve operations and build subsidiaries. Therefore, the EPS value cannot be used as a reference in assessing stock returns. Not necessarily a low EPS describes the company's overall performance which will have an impact on the returns that will be received by investors. This result is supported by previous research conducted by Kurniawan (2021) revealing that Earnings per share has no effect on stock returns. So it can be concluded that EPS is not the only factor that can affect stock returns. Thus the third hypothesis which states that Earning Per Share has an effect on stock returns is rejected.

d. Effect of Current Ratio (CR) on Stock Returns

This study has managed to prove that the Current Ratio has a positive effect on stock returns in Food and Beverage companies in Indonesia Sharia Stock. This is evidenced by the t count of 4.070231 which is greater than the t table of 1.996084 or the probability value is less than 0.05, namely 0.0001 < 0.05. Then the Current Ratio has a significant positive effect on stock returns. The higher the Current Ratio, the higher the company's ability to pay or fulfill short-term obligations. This can provide a perception in the eyes of investors that the company has healthy finances or can manage finances well. So that it can attract investors to invest their shares in companies that cause stock prices to rise and also stock returns. Thus the fourth hypothesis which states that the Current Ratio variable has a significant positive effect on stock returns is accepted. Current Ratio has a significant positive effect on Stock Return, this is because current assets owned by a company are much larger than current liabilities. It can be interpreted that the company can or is able to pay its current obligations on time. The punctual payment of the company's current liabilities can automatically ensure the good performance of a company and the profits earned will increase. This will affect the increase in the value of Stock Return. This research finding supports the results of research from Widiana & Yustrianthe (2020) showing that the Current Ratio has an effect on stock returns. So it can be concluded that CR is not the only factor that can affect stock returns.

CHAPTER V

CONCLUSIONS

4.1 Conclusions

Based on the results of tests and discussions that have been carried out, regarding the effect of Debt to Equity Ratio (DER), Return On Assets (ROA), Earning Per Share (EPS), and Current Ratio (CR) on stock returns in manufacturing companies in the food and beverage sub-sector listed on the Indonesian Sharia Stock Index (ISSI) for the 2017-2020 period, it can be concluded that :

- The results of partial hypothesis testing indicate that the Debt to Equity Ratio (DER) variable does not have a significant negative effect on stock returns of Food and Beverage companies in the Indonesia Sharia Stock Index. This is because there are different views between investors regarding the use of debt in the company and investors will be more likely to observe the level of profitability of a company.
- 2. The results of partial hypothesis testing show that the Return On Asset (ROA) variable has a significant effect on the stock returns of Food and Beverage companies in the Indonesia Sharia Stock Index.
- 3. The results of partial hypothesis testing indicate that the Earning Per Share (EPS) variable has no significant effect on stock returns of Food and Beverage companies in the Indonesia Sharia Stock Index. This shows that the rise and fall of Earning Per Share (EPS) which varies cannot be used as a determinant in buying shares and obtaining stock returns.

4. The results of partial hypothesis testing show that the Current Ratio (CR) variable has a significant effect on stock returns of Food and Beverage companies in the Indonesia Sharia Stock Index.

4.2 Limitations

In this study, there are several limitations that may affect the results of the study:

- This research is limited to manufacturing companies in the food and beverage sub-sector listed on the Indonesian Sharia Stock Index (ISSI), so they are less representative of the entire industrial sector listed on the Indonesia Stock Exchange.
- 2. This study only takes data with an annual period from 2017 to 2020, so the data taken may not reflect both the long-term state of the company and its macroeconomic condition.
- 3. Only four research variables are used Debt to Equity Ratio (DER), Return On Assets (ROA), Earning Per Share (EPS), and Current Ratio (CR) which can affect stock returns.

4.3 Suggestion

Based on the conclusions and limitations of the study, there are two suggestions for further studies

- It is suggest that further studies extend the research population or be able to make comparisons with other sectors in order to provide a broader view of the factors that affect stock returns
- 2. It is suggested that further studies add other factors that affect stock returns.



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APPENDIX

NO	COMPANY	YEAR	Current Asset	Cuurent Liablitie	Total Debt	Total Equity	Profit	Total Asset	EPS	Awal	Akhir
1	ADES	2017	294244	244888	417225	423011	38242	840236	65	1175	885
	Akasha Wira International Tbk	2018	364138	262397	399361	481914	52958	881275	90	900	920
		2019	351120	175191	254438	567937	83885	822375	142	1100	1045
		2020	545239	183559	258283	700508	135789	958791	230	735	1460
2	AISA	2017	881092	4154427	5329841	-3347901	-5234288	1981940	-162590	2150	476
	FKS Food Sejahtera Tbk.	2018	788973	5177830	5267348	-3450942	-123513	1816406	-38	645	168
		2019	474261	1152923	3526819	-1657853	1134776	1868966	352	168	168
		2020	695360	855449	118300	828257	1204927	2011557	243	168	390
3	BUDI	2017	1027489	1019986	1744756	1194700	45691	2939456	9	98	94
	Budi Starch & Sweetener Tbk.	2018	1472140	1467508	2166496	1226484	50476	3392980	11	145	95
	· · · · · · · · · · · · · · · · · · ·	2019	1141009	1133685	1714449	1285318	64021	2999767	14	100	103
	CANAD	2020	1241540	1085439	1640851	1322156	67093	2963007	14	88	99
4	CAMP	2017	864515740386	54639027443	3/32/2941443	83/911581216	43421/34614	1211184522659	/	615	1185
	Campina ice Cream industry i	2018	664681699769	61322975128	118853215128	885422598655	61947295689	1004275813783	11	402	346
-		2019	723910345285	57300411135	122130752135	935392483851	/0/58829457	105/529235980	13	030	3/4
	CEV.A.	2020	751789918087	50005004940	125101/30940	901/11929/01	44045828312	10808/3000041	/	202	302
5	UERA Wilmar Cabava Indonesia Thk	2017	900166450673	444383077820	469392257434	903044187007	02640656775	1169056042706	156	1300	1230
2	wimar canaya muonesia rok.	2018	1067652079121	138233332230	261794945340	1121204696924	32049030773	1202070542074	150	1035	1575
		2019	1266596465994	271641005590	201784843240	1260714094864	10101350200242	1566672929069	206	1025	1705
6	CLEO	2020	144179191217	116842220205	262949247159	297969572294	50172720929	660917775222	500	52	1/65
	Sariguna Primatirta Thk	2017	198544222066	121061155519	199455291702	625479469992	62261752474	922922961594	6	219	294
	Sanguna Primacinta Tok.	2018	240755729131	204952165237	478844867693	766299436026	130756461708	1245144303719	11	210	505
<u> </u>		2020	254187665140	147545013406	416194010942	894746110680	132772234495	1310940121622	11	422	500
9	EISH	2020	254167005140	207291707	227295044	100985962	15969486	228281006		2200	2400
	EKS Multi Agro Thk	2017	3/3051766	265278767	322740870	1087989/11	11943017	431539811	0	2100	4060
-		2019	307407397	260746372	309321265	116947774	11343554	426269039	0	2100	3800
		2020	318359007	263134605	307995147	440917819	19476235	440917819	0	2000	2620
10	нокі	2017	402492112857	88130681014	100983030820	474980511759	47964112940	576963542	24	332	344
	Buyung Poetra Sembada Tbk.	2018	490747589782	183224424681	195678977792	563167578239	90195136265	758846556031	38	555	730
	- / 0	2019	483422211591	161901915986	207108590481	641567444819	103723133972	848676035300	44	154	940
		2020	423486192138	188719266211	244363297557	662560916609	38038419405	906924214166	16	188	1005
11	ICBP	2017	16579331	6827588	11295184	20324330	3543173	31619514	326	8175	8900
	Indofood CBP Sukses Makmur	2018	14121568	7235398	11660003	22707150	4658781	34367153	392	8175	10450
		2019	16624925	6556359	12038210	26671104	5360029	38709314	432	9000	11150
		2020	20716223	9176164	53270272	50318053	7418574	103588325	565	10075	9575
12	IIKP	2017	18602111558	22704492270	25036566758	288887959837	-13010375867	313924526593	-4	240	330
0	Inti Agri Resources Tbk.	2018	21055644654	22158317850	23746905995	274343742077	-15074081971	298090648072	-4	212	240
		2019	123860216383	22889516184	25039869959	359441336181	85544158340	384481206140	25	167	50
		2020	101730652999	1031391774	25243798592	317895683657	-41519336887	343139482249	-12	50	50
13	INDF	2017	32948131	21637763	41298111	47102766	5097264	88400877	473	7975	7625
u.	Indofood Sukses Makmur Tbk.	2018	33272618	31204102	46620996	49916800	4961851	96537796	474	7100	7450
-	-	2019	31403445	24686862	41996071	54202488	5902729	96198559	559	6500	7925
		2020	38418238	27975875	83998472	79138044	8752066	163136516	735	6525	6850
14	MYOR	2017	10674199571313	4473628322958	7561503434179	7354346366072	1630953830893	14915849800251	71	2080	2020
	Mayora Indah Tbk.	2018	12647858727872	4764510387113	9049161944940	8542544481694	1760434280304	17591706426634	77	2890	2620
		2019	12776102781513	3714359539201	9125978611155	9911940195318	2051404206764	19037918806473	89	2510	2050
		2020	12838729162094	3475323711943	8506032464592	1127146804958	2098168514645	19777500514550	92	1875	2710
15	ROTI	2017	2319937439019	1027176531240	1739467993982	2820105715429	-50783313391	4559573709411	28	1640	1275
	Nippon Indosari Corpindo Tbk	2018	1876409299238	525422150049	1476909260772	2916901120111	-59764888552	4393810380883	28	1225	1200
		2019	18/4411044438	1106938318565	1589486465854	3092597379097	236518557420	4682083844951	49	1265	1300
16	CKDM	2020	154901/329408	404567270700	1224495024254	3227071047731	108010282478	4452100071985	30	1205	1300
10	Solver Dumi Thk	2017	830039397232	511596750506	399790014040	1023237400399	25880404791	1771255072000	15	505	715
	Sekar Burni TDK.	2018	000742651120	669031501995	791563071911	1040370332371	057160052	1920292352911	0	404	093
		2015	953792483691	701020837232	806678887118	961981659335	5415741808	1768660546754	6	322	324
17	SKIT	2017	267129479669	211493160519	328714435982	307569774228	22970715348	636284210210	34	700	1100
	Sekar Laut Thk	2018	356735670030	291349105535	408057718435	339236007000	31954131252	747293725435	47	1150	1500
	SCRUI LUUCIDA	2019	378352247338	293281364781	410463595860	380381947966	44943627900	790845543826	65	1500	1610
0.	-	2020	379723220668	247102759160	366908471713	406954570727	42520246722	773863042440	62	1610	1565
22	STTP	2017	940212374995	358963437494	957660374836	1384772068360	216024079834	2342432443196	165	3710	4360
	Siantar Top Tbk.	2018	1250806822918	676673564908	984801863078	1646387946952	255088886019	2631189810030	195	4600	3750
7		2019	1165406301686	408490550651	733556075974	2148007007980	482590522840	2881563083954	368	3300	4500
		2020	1505872822478	626131203549	775696860738	2673298199144	628628879549	3448995059882	480	9525	9500
23	ULTJ	2017	3439990	820625	978185	4197711	718402	5175896	61	1050	1295
	Ultra Jaya Milk Industry & Trad	2018	2793521	635161	780915	4774956	701607	5555871	60	1380	1350
		2019	3716641	836314	953283	5655139	1035865	6608422	89	1215	1680
		2020	5593421	2327339	3972379	4781737	1109666	8754116	100	1410	1600
-	7.4										

COMPANY	YEAR	HS	DER	ROA	EPS	CR
ADES	2017	-0,247	0,986	0,046	65,00	1,202
ADES	2018	0,022	0,829	0,060	90,00	1,388
ADES	2019	-0,050	0,448	0,102	142,00	2,004
ADES	2020	0,986	0,369	143,142	130,00	2,970
AISA	2017	-0,779	1,562	-32,641	-171,47	12,085
AISA	2018	-0,740	1,526	-67,999	-38,35	15,375
AISA	2019	0,000	2,127	0,607	352,00	11,355
AISA	2020	1,321	0,001	130,599	243,00	0,813
BUDI	2017	-0,041	1,460	15,544	9,13	1,007
BUDI	2018	-0,345	1,766	14,874	10,68	1,003
BUDI	2019	0,030	1,334	21,342	13,61	1,006
BUDI	2020	0,125	1,241	22,644	13,89	1,144
CAMP	2017	0,927	0,445	35,851	7,38	15,822
CAMP	2018	-0,139	0,134	61,684	10,53	10,839
CAMP	2019	-0,406	0,131	72,583	13,04	12,634
CAMP	2020	0,495	0,130	40,525	7,48	13,267
СЕКА	2017	-0,348	0,542	77,135	81,00	2,224
СЕКА	2018	0,034	0,197	79,258	156,00	5,113
СЕКА	2019	0,629	231,403	154,664	362,00	0,005
CEKA	2020	0,417	242,687	116,050	306,00	0,000
CLEO	2017	1,904	1,218	180,076	5,00	1,234
CLEO	2018	0,303	0,312	0,076	6,00	1,640
CLEO	2019	0,857	0,625	105,013	11,00	1,175
CLEO	2020	0,185	0,465	101,280	11,00	1,723
FISH	2017	-0,250	2,351	0,047	0,03	1,261
FISH	2018	0,933	2,966	0,028	0,03	1,293
FISH	2019	0,810	2,660	0,027	0,02	1,179
FISH	2020	0,310	0,699	0,044	0,04	1,210
HOKI	2017	0,036	0,213	0,083	24,00	0,459
HOKI	2018	0,315	0,347	0,119	38,00	2,678
HOKI	2019	5,104	0,323	212,122	44,00	22,986
HOKI	2020	4,346	0,369	201,042	16,00	22,244
ICBP	2017	0,089	0,556	0,112	326,00	2,428
ICBP	2018	0,278	0,513	0,136	392,00	1,952
ICBP	2019	0,239	0,451	0,138	432,00	2,536
ICBP	2020	-0,050	1,059	0,072	565,00	2,258
IIKP	2017	0,375	0,087	0,041	-3,91	0,819
IIKP	2018	0,132	0,087	0,051	-4,33	0,950
IIKP	2019	-0,701	0,070	0,222	25,33	5,411
IIKP	2020	0,000	0,079	-0,121	-12,36	1,634

INDF	2017	-0,044	0,877	0,058	473,00	1,523
INDF	2018	0,049	0,000	0,051	474,00	1,066
INDF	2019	0,219	0,775	0,061	559,00	1,272
INDF	2020	0,050	1,061	0,054	735,00	1,373
MYOR	2017	-0,029	1,028	0,109	71,00	2,386
MYOR	2018	-0,093	1,059	0,101	77,00	2,655
MYOR	2019	-0,183	0,921	0,108	89,00	3,440
MYOR	2020	0,445	0,755	0,106	92,00	3,694
ROTI	2017	-0,223	0,617	-11,138	27,66	2,259
ROTI	2018	-0,020	0,506	-13,602	28,07	0,004
ROTI	2019	0,028	1,946	50,516	49,29	1,693
ROTI	2020	0,075	0,379	37,872	35,98	0,004
SKBM	2017	0,416	586,169	15,946	15,40	1,635
SKBM	2018	0,498	702,293	9,007	8,01	1,383
SKBM	2019	-0,113	754,535	525,806	2,43	1,330
SKBM	2020	0,006	0,839	3,062	5,99	1,361
SKLT	2017	0,571	1,069	0,036	33,60	1,263
SKLT	2018	0,304	1,203	0,043	46,69	1,224
SKLT	2019	0,073	1,079	0,057	65,42	1,290
SKLT	2020	-1,565	0,902	-90,001	61,83	1,537
STTP	2017	0,175	691,565	92,222	165,16	2,619
STTP	2018	-0,185	598,159	96,948	194,81	0,002
STTP	2019	0,364	341,505	167,475	368,41	0,003
STTP	2020	-0,003	290,165	182,264	479,82	0,002
ULTJ	2017	0,233	233,028	138,798	61,00	0,004
ULTJ	2018	-0,022	163,544	126,282	60,00	0,004
ULTJ	2019	0,383	168,569	0,157	89,00	0,004
ULTJ	2020	0,135	0,831	0,127	100,00	2,403

Common Effect Model

Dependent Variable: HS Method: Panel Least Squares Date: 01/15/22 Time: 19:46 Sample: 2017 2020 Periods included: 4 Cross-sections included: 17 Total panel (balanced) observations: 68

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.158014	0.138161	-1.143693	0.2571
DER	-0.000931	0.000578	-1.610682	0.1122
ROA	0.004932	0.001205	4.092122	0.0001
EPS	0.000219	0.000513	0.426473	0.6712
CR	0.077182	0.018962	4.070231	0.0001
R-squared	0.412607	Mean depe	ndent var	0.274265
Adjusted R-squared	0.375312	S.D. depen	dent var	0.922510
S.E. of regression	0.729126	Akaike info	o criterion	2.276745
Sum squared resid	33.49235	Schwarz criterion		2.439944
Log likelihood	-72.40934	Hannan-Qu	Hannan-Quinn criter.	
F-statistic	11.06339	Durbin-Watson stat		1.327145
Prob(F-statistic)	0.000001			

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Fixed Effect Model

Dependent Variable: HS Method: Panel Least Squares Date: 01/15/22 Time: 19:47 Sample: 2017 2020 Periods included: 4 Cross-sections included: 17 Total panel (balanced) observations: 68

Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	-0.538366	0.197916	-2.720176	0.0091		
DER	5.15E-06	0.000891	0.005782	0.9954		
ROA	0.002993	0.001192	2.510889	0.0155		
EPS	0.002246	0.001082	2.076573	0.0433		
CR	0.123590	0.026169	4.722745	0.0000		
Effects Specification						
Cross-section fixed	(dummy varia	ıbles)	Z			
R-squared	0.678569	Mean depe	ndent var	0.274265		
Adjusted R-squared	0.541790	S.D. dependent var		0.922510		
S.E. of regression	0.624458	Akaike info criterion		2.144422		
Sum squared resid	18.32755	Schwarz cr	iterion	2.829858		
Log likelihood	-51.91034	Hannan-Qu	inn criter.	2.416013		
F-statistic	4.961059	Durbin-Wa	tson stat	2.249405		
Prob(F-statistic)	0.000003					



Random Effect Model

Dependent Variable: HS Method: Panel EGLS (Cross-section random effects) Date: 01/15/22 Time: 19:47 Sample: 2017 2020 Periods included: 4 Cross-sections included: 17 Total panel (balanced) observations: 68 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.230227	0.159574	-1.442759	0.1540
DER	-0.000650	0.000605	-1.073985	0.2869
ROA	0.004228	0.001095	3.861482	0.0003
EPS	0.000529	0.000588	0.900185	0.3715
CR	0.090859	0.019709	4.609972	0.0000
	Effects Spe	ecification		
			S.D.	Rho
Cross-section random		0.333165	0.2216	
Idiosyncratic random	ı		0.624458	0.7784
	Weighted	Statistics	S	
R-squared	0.407870	Mean depe	ndent var	0.187545
Adjusted R-squared	0.370274	S.D. depen	0.815699	
S.E. of regression	0.647300	Sum square	26.39681	
F-statistic	10.84889	Durbin-Watson stat		1.587714
Prob(F-statistic)	0.000001	2/11	1	11
Null	Unweighted	1 Statistics	بحم	
R-squared	0.403927	Mean depe	ndent var	0.274265
Sum squared resid	33.98728	Durbin-Wa	tson stat	1.233126

Chow Test

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.430581	(16,47)	0.0093
Cross-section Chi-square	40.997989	16	0.0006

Cross-section fixed effects test equation: Dependent Variable: HS Method: Panel Least Squares Date: 01/15/22 Time: 19:47 Sample: 2017 2020 Periods included: 4 Cross-sections included: 17 Total panel (balanced) observations: 68						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
С	-0.158014	0.138161	-1.143693	0.2571		
DER	-0.000931	0.000578	-1.610682	0.1122		
ROA	0.004932	0.001205	4.092122	0.0001		
EPS	0.000219	0.000513	0.426473	0.6712		
CR	0.077182	0.018962	4.070231	0.0001		
R-squared	0.412607	Mean depe	ndent var	0.274265		
Adjusted R-squared	0.375312	S.D. depen	dent var	0.922510		
S.E. of regression	0.729126	Akaike info	o criterion	2.276745		
Sum squared resid	33.49235	Schwarz cr	iterion	2.439944		
Log likelihood	-72.40934	Hannan-Qu	inn criter.	2.341410		
F-statistic	11.06339	Durbin-Wa	tson stat	1.327145		
Prob(F-statistic)	0.000001					

Hausman test

Correlated Random Effects - Hausman 7	Гest
Equation: Untitled	
Test cross-section random effects	

	Chi-Sq.		
Test Summary	Statistic Chi-	Sq. d.f.	Prob.
Cross-section random	8.693175	4	0.0692
	.AV		

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
DER	0.000005	-0.000650	0.000000	0.3164
ROA	0.002993	0.004228	0.000000	0.0087
EPS	0.002246	0.000529	0.000001	0.0586
CR	0.123590	0.090859	0.000296	0.0573

Cross-section random effects test equation: Dependent Variable: HS Method: Panel Least Squares Date: 01/15/22 Time: 19:47 Sample: 2017 2020 Periods included: 4 Cross-sections included: 17 Total panel (balanced) observations: 68

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.538366	0.197916	-2.720176	0.0091
DER	5.15E-06	0.000891	0.005782	0.9954
ROA	0.002993	0.001192	2.510889	0.0155
EPS	0.002246	0.001082	2.076573	0.0433
CR	0.123590	0.026169	4.722745	0.0000
	Effects Spe	ecification		
Cross-section fixed	(dummy varia	ables)		
R-squared	0.678569	Mean depe	ndent var	0.274265
Adjusted R-squared	0.541790	S.D. depen	dent var	0.922510
S.E. of regression	0.624458	Akaike info criterion 2		2.144422

Schwarz criterion

Hannan-Quinn criter. 2.416013

2.829858

18.32755

-51.91034

Sum squared resid

Log likelihood

F-statistic	4.961059	Durbin-Watson stat	2.249405
Prob(F-statistic)	0.000003		

Lagrange Multiplier Test

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

(all others) alternatives

	Test Hypothesis				
	Cross-section	Time	Both		
Breusch-Pagan	3.012272	1.858129	4.870400		
	(0.0826)	(0.1728)	(0.0273)		
Honda	1.735590	-1.363132	0.263367		
	(0.0413)		(0.3961)		
King-Wu	1 735590	-1 363132	-0 561242		
King-wu	(0.0413)	-1.303132	-0.301242		
Standardized Honda	2.333641	-1.162782	-3.008618		
	(0.0098)				
Standardized King-			Sec. 1		
Wu	2.333641	-1.162782	-3.230764		
	(0.0098)				
Gourierioux, et al.*			3.012272		
.w = 3/11	11.000	(((1.	(< 0.10)		
*Mixed chi-square asymptotic critical values:					
1%	7.289				
5%	4.321				
10%	2.952				

Autocorrelation Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.111489	Prob. F(2,61)	0.3356
Obs*R-squared	2.390943	Prob. Chi-Square(2)	0.3026

Test Equation: Dependent Variable: RESID Method: Least Squares Date: 01/15/22 Time: 16:59 Sample: 1 68 Included observations: 68 Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.009940	0.062680	0.158588	0.8745
DER	1.41E-05	0.000263	0.053448	0.9575
ROA	6.54E-05	0.000544	0.120257	0.9047
EPS	-3.31E-05	0.000232	-0.142624	0.8871
CR	-0.002994	0.008906	-0.336210	0.7379
RESID(-1)	-0.101484	0.129626	-0.782899	0.4367
RESID(-2)	-0.176767	0.134142	-1.317765	0.1925
R-squared	0.035161	Mean dependen	t var	5.39E-17
Adjusted R-squared	-0.059741	S.D. dependent var		0.318541
S.E. of regression	0.327918	Akaike info criterion		0.705141
Sum squared resid	6.559332	Schwarz criterion		0.933619
Log likelihood	-16.97478	Hannan-Quinn criter.		0.795671
F-statistic	0.370496	Durbin-Watson stat		1.959439
Prob(F-statistic)	0.894914			



Heterocedasticity Test

Heteroskedasticity Test: Glejser

F-statistic	2.454352	Prob. F(4,63)	0.0548
Obs*R-squared	9.167915	Prob. Chi-Square(4)	0.0570
Scaled explained SS	9.760114	Prob. Chi-Square(4)	0.0447

Test Equation:

Dependent Variable: ARESID Method: Least Squares Date: 01/15/22 Time: 16:58 Sample: 1 68 Included observations: 68

Variable	Coefficient	Std. Error	t-Statistic	Prob.
с	0.234079	0.037413	6.256581	0.0000
DER	0.000271	0.000157	1.730185	0.0885
ROA	-0.000387	0.000326	-1.184862	0.2405
EPS	-0.000240	0.000139	-1.724445	0.0895
CR	0.009933	0.005135	1.934483	0.0575
R-squared	0.134822	Mean depender	nt var	0.241310
Adjusted R-squared	0.079890	S.D. dependent	var	0.205836
S.E. of regression	0.197443	Akaike info crite	rion	-0.336048
Sum squared resid	2.455976	Schwarz criterio	n	-0.172849
Log likelihood	16.42562	Hannan-Quinn criter.		-0.271383
F-statistic	2.454352	Durbin-Watson stat		2.155241
Prob(F-statistic)	0.054792			

