The Investment Decisions in the Fish, Meat, & Poultry Industries Using the Capital Asset Pricing Model (CAPM) Method: Period 2022

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Abstract - This journal discusses the investment decisions in the Fish, Meat, & Poultry Industries Using the Capital Asset Pricing Model (CAPM) Method. This study uses a quantitative descriptive research method using a sample of 10 stocks from companies in the Fish, Meat, & Poultry sector that are listed on the Indonesia Stock Exchange continuously in the 2022 period. This study aims to see which companies will provide the highest returns that can exceed risk-free returns among companies in the fish, meat, & poultry sector in Indonesia and only stocks that have a return value more than the CAPM return will recommended for investors investing. The results of this study is from 10 company, there are only 2 companies in the Fish, Meat, & Poultry Industries in Indonesia which has efficient shares, namely Charoen Pokphand Indonesia Tbk and Morenzo Abadi Perkasa Tbk because they have a stock return value that is greater than the CAPM return value.

Keywords: Capital Asset Pricing Model (CAPM), Investment Decisions, Industries

INTRODUCTION

Indonesia is one of the countries which has now been declared as a country worthy of investment so that many companies, both domestic and foreign are interested in opening the stock market. Business people who enter the capital market must be prepared to face incoming capital flows for the development of companies and the capital market in Indonesia.

The capital market and financial market are currently part of the financial market. States that the capital market is a major influence in maintaining the national economy where a market is prepared to trade stocks, bonds, and other types of securities that have securities brokerage services (Crisdianto, 2016).

In every sector or form of investment made by investors, there must be different risks. Investment is an uncertain thing, when investors invest their capital to invest by buying shares of companies that have been listed on the Indonesian Stock Exchange, they sometimes have difficulty knowing or predicting which stocks have the smallest risk but with the greatest returns.

Investors who want to invest in a company can use the Capital Asset Pricing Market method to find out or predict which company has the smallest risk with the biggest profit. Therefore, researchers are interested in conducting research with the title "Investment Decisions in the Fish, Meat, & Poultry Industry Using the Capital Asset Pricing Model (CAPM) Method: Period 2022" to see which companies will provide the highest returns that can exceed risk-free returns among companies in the fish,

meat, & poultry sector in Indonesia and only stocks that have a return value more than the CAPM return will recommended for investors investing.

1. Investment Decisions

Investment is an allocation of resources for the long or medium term with the expectation of results to recover investment costs and have high profits (Virlics, 2013). Many things can affect investment so that investment returns are uncertain. Investment is not only financial resources, but materials or equipment and human resources are also forms of investment that can be made.

Investment decisions are activities that determine how company funds should be used and distributed among existing groups (Fabozzi, 2004). The company's growth is increasing steadily and the increase in asset value is expected to increase investor expectations because the opportunity to get the expected profit from investment can be achieved (Syamsudin, 2022).

Risk is a very complex problem, so it is important to study, understand, and identify it in the investment process (Virlics 2013). It is strongly discouraged not to carry out a risk analysis when making investment decisions. One method that can be used to measure investment risk is the Capital Asset Pricing Model (CAPM).

2. Capital Asset Pricing Model (CAPM) Method

The Capital Asset Pricing Model (CAPM) is an asset pricing method developed by Sharpe (1964) and Lintner (1965). The Capital Asset Pricing Model (CAPM) method is widely used in applications such as estimating the cost of capital for companies and also evaluating performance. managed portfolio.

The Capital Asset Pricing Model (CAPM) is a very useful tool for estimating a company's cost of capital and also the returns required by investors to invest in company assets (Rossi, 2016). The Capital Asset Pricing Model (CAPM) explains how the tradeoff is between asset returns and measuring asset risk as the covariance of return on return on the market as a whole.

We can use the Capital Asset Pricing Model (CAPM) method to measure asset risk and to estimate the capital and also the return needed to invest. In this study, researchers used the Capital Asset Pricing Model (CAPM) method to view or predict stocks with the smallest risk but yield large profits based on the concept of risk (risk) and rate of return (return) among companies in the existing Fish, Meat & Poultry sector. in Indonesia. To perform calculations using the Capital Asset Pricing Model (CAPM) method, the following formula is used:

$$R_{j} = R_{f} + \beta_{j} (R_{m} - R_{f})$$
(1)

Source: (Fahmi, 2014)

 R_j = The expected return on the asset

 R_f = Risk free rate of return β_i = beta of the asset

 $R_{\rm m}$ = Expected market return

RESEARCH METODOLOGY

This research uses quantitative research methods. Quantitative research is research with data in the form of numbers and statistical programs. This study uses quantitative research methods with secondary data collection techniques. Secondary data collection techniques are data collection techniques in both quantitative and qualitative research that are carried out to find out a new problem or to test the results of previous research by taking data in the form of notes, archives, or documentation obtained from government agencies or institutions without the need to conduct surveys, interviews, observations, and other specific data collection techniques (Tineges, 2021).

Researchers take stock data for 2022 every month from the official website and then calculate the data using the CAPM method in the excel application and compare the results to see which companies will provide returns that can exceed risk-free returns among companies in the existing Fish, Meat & Poultry sector in Indonesia

RESULT AND DISCUSSION

This study uses a sample of 10 shares from companies in the Fish, Meat & Poultry sector which are listed on the Indonesia Stock Exchange

continuously in the 2022 period with the calculation for each share as follows:

1. Jakarta Stock Exchange (JKSE)

The Jakarta Stock Exchange (JKSE) or the Composite Stock Price Index (IHSG) is an indicator that reflects stock price movements that are commonly used by investors to make the right investment decisions (Kota and Setyawan, 2021). In this study, the Capital Asset Pricing Model (CAPM) method was used to see which companies will provide returns that can exceed risk-free returns among companies in the Fish, Meat, & Poultry sector in Indonesia. In using the CAPM method, the company's return value must exceed the market return value (Jakarta Stock Exchange). If the company's return exceeds the market return, then the company will provide a return that can exceed the risk-free return and can be recommended to investors to invest in the company.

Tabel 1. Return market

| | JKSE | |
|------------|---------------|---------|
| Date | Close | |
| 01/01/2022 | 6.631.150.879 | JKSE |
| 01/02/2022 | 6.888.170.898 | 0,0388 |
| 01/03/2022 | 7.071.441.895 | 0,0266 |
| 01/04/2022 | 7.228.914.063 | 0,0223 |
| 01/05/2022 | 7.148.970.215 | -0,0111 |
| 01/06/2022 | 6.911.582.031 | -0,0332 |
| 01/07/2022 | 6.951.123.047 | 0,0057 |
| 01/08/2022 | 7.178.589.844 | 0,0327 |
| 01/09/2022 | 7.040.797.852 | -0,0192 |
| 01/10/2022 | 7.098.890.137 | 0,0083 |
| 01/11/2022 | 7.081.312.988 | -0,0025 |
| 01/12/2022 | 6.751.859.863 | -0,0465 |
| 16/12/2022 | 6.812.192.871 | 0,0089 |
| | return market | 0,0308 |

Source: the processed data of researches

From the results of calculating the Jakarta Stock Exchange (JKSE) monthly data for the 2022 period, it can be seen that the market return value is 3%.

2. Asia Sejahtera Mina Tbk (AGAR)

| Tabel | 2. Analysis Return o | of Asia Se | jahtera Mina Tbk |
|-----------------------|----------------------|------------|------------------|
| Beta | 0,688332 | Rf | 4% |
| R CAPM | 0,031558 | Rm | 3% |
| return AGAR = -0,2447 | | | |
| | R CAPM > R A | GAR | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R AGAR so it is not recommended to invest in Asia Sejahtera Mina Tbk.

Charoen Pokphand Indonesia Tbk (CPIN) Tabel 3. Analysis Return of Charoen Pokphand Indonesia

| Tbk | | | |
|----------------------|----------|-----|----|
| Beta | -0,20686 | Rf | 4% |
| R CAPM | 0,036034 | Rm | 3% |
| return CPIN = 0,1453 | | | |
| R CAPM < R CPIN | | Buy | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is smaller than the R CPIN, so it is advisable to invest in Charoen Pokphand Indonesia Tbk.

4. Widodo Makmur Unggas Tbk (WMUU)

| Tabel 4. | Analysis Return of W | /idodo M | <u>akmur Unggas</u> Tbk | |
|-----------------------|----------------------|----------|-------------------------|--|
| Beta | 1,06657 | Rf | 4% | |
| R CAPM | 0,029667 | Rm | 3% | |
| return WMUU = -0,2980 | | | | |
| R CAPM > R WMUU | | | | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R WMUU, so it is not recommended to invest in Widodo Makmuk Unggas Tbk.

Dharma Samudera Fishing Industries Tbk (DSFI) Tabel 5. Analysis Return of Dharma Samudra Fishing

| Industries Tbk | | | |
|----------------------|-------------|----|--|
| Beta | 1,058784 Rf | 4% | |
| R CAPM | 0,029706 Rm | 3% | |
| return DSFI = 0,0264 | | | |
| R CAPM > R DSFI | | | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R DSFI, so it is not recommended to invest in Dharma Samudera Fishing Industries Tbk.

6. Japfa Comfeed Indonesia Tbk (JPFA)

| | nalysis Return of Ja | ` | eed Indonesia Tbk | |
|-----------------------|----------------------|----|-------------------|--|
| Beta | -0,03791 | Rf | 4% | |
| R CAPM | 0,03519 | Rm | 3% | |
| return JPFA = -0,2474 | | | | |

R CAPM > R JPFA

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R JPFA, so it is not recommended to invest in Japfa Comfeed Indonesia Tbk.

7. Central Proteina Prima Tbk (CPRO)

| ,, communitation (critc) | | | | |
|--------------------------|--------------------|---------|--------------------|--|
| Tabel 7. | Analysis Return of | Central | Proteina Prima Tbk | |
| Beta | 1,398628 | Rf | 4% | |
| R CAPM | 0,028007 | Rm | 3% | |
| return CPRO = -0,3165 | | | | |
| | R CAPM > R | CPRO | | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R CPRO, so it is not recommended to invest in Central Proteina Prima Tbk.

8. Morenzo Abadi Perkasa Tbk (ENZO)

| Tabel 8. Ana | alysis Return of | Morenzo | Abadi Perkasa Tbl |
|----------------------|------------------|---------|-------------------|
| Beta | 0,414804 | Rf | 4% |
| R CAPM | 0,032926 | Rm | 3% |
| return ENZO = 0,2473 | | | |
| R CAPM < R ENZO | | Buy | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R ENZO, so it is advisable to invest in Morenzo Abadi Perkasa Tbk.

9. Era Mandiri Cemerlang Tbk (IKAN)

| Tabel 9. | Analysis Return of I | Era Mand | iri Cemerlang Tbk |
|-----------------------|----------------------|----------|-------------------|
| Beta | -0,19279 | Rf | 4% |
| R CAPM | 0,035964 | Rm | 3% |
| return IKAN = -0,3177 | | | |
| R CAPM > R IKAN | | | |

Source: the processed data of researches

Based on the calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R FISH, so it is not recommended to invest in Era Mandiri Cemerlang Tbk.

10. Malindo Feedmill Tbk (MAIN)

| | | (| , |
|----------|-------------------|------------|------------------|
| Tabel 10 |). Analysis Retur | n of Malii | ndo Feedmill Tbk |
| Beta | 0,195168 | Rf | 4% |
| | | | |
| R CAPM | 0,034024 | Rm | 3% |
| | , MAIN | 0.1007 | |
| re | eturn MAIN = | -0,1827 | |
| | | | |

| R CAPM > R MAIN | - |
|--|---|
| Source: the processed data of researches | _ |

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than R MAIN, so it is not recommended to invest in Malindo Feedmill Tbk.

11. Sreeya Sewu Indonesia Tbk (SIPD)

| Tabel 11. Analysis Return of Malindo Feedmill Tbk | | | | | | | |
|---|----------|----|----|--|--|--|--|
| Beta | 0,892244 | Rf | 4% | | | | |
| R CAPM | 0,030539 | Rm | 3% | | | | |
| return SIPD = -0,2595 | | | | | | | |
| R CAPM > R SIPD | | | | | | | |

Source: the processed data of researches

Based on calculations that have been carried out using the Capital Asset Pricing Model (CAPM) method, the data shows that the R CAPM is greater than the R SIPD, so it is not recommended to invest in Sreeya Sewu Indonesia Tbk.

12. Classification of Efficient and Inefficient Shares
Efficient stocks in this study are stocks with a return value greater (>) than the CAPM return value.

| Company | Stock | Table 12. Stock Evaluation Stock Company CAPM Sto | | | |
|------------|-------|---|----------|-----------|--|
| company | Code | Return | Return | Evaluatio | |
| | Code | Value | Value | n | |
| | | | | _ | |
| Asia | AGAR | -0,2447 | 0,031558 | Not | |
| Sejahtera | | | | Efficient | |
| Mina Tbk | | | | | |
| Charoen | CPIN | 0,1453 | 0,036034 | Efficient | |
| Pokphand | | | | | |
| Indonesia | | | | | |
| Tbk | | | | | |
| Widodo | WMUU | -0,298 | 0,029667 | Not | |
| Makmuk | | | | Efficient | |
| Unggas | | | | | |
| Tbk | | | | | |
| Dharma | DSFI | 0,0264 | 0,029706 | Not | |
| Samudera | | | | Efficient | |
| Fishing | | | | | |
| Industries | | | | | |
| Tbk | | | | | |
| Japfa | JPFA | -0,2474 | 0,03519 | Not | |
| Comfeed | | | | Efficient | |
| Indonesia | | | | | |
| Tbk | | | | | |
| Central | CPRO | -0,3165 | 0,028007 | Not | |
| Proteina | | | | Efficient | |
| Prima Tbk | | | | | |
| Morenzo | ENZO | 0,2473 | 0,032926 | Efficient | |
| Abadi | | | | | |
| Perkasa | | | | | |
| Tbk | | | | | |
| Era | IKAN | -0,3177 | 0,035964 | Not | |
| Mandiri | | | | Efficient | |
| Cemerlang | | | | | |
| Tbk | | | | | |
| Malindo | MAIN | -0,1827 | 0,034024 | Not | |
| Feedmill | | | | Efficient | |
| Tbk | | | | | |

| Sreeya | SIPD | -0,2595 | 0,030539 | Not |
|-----------|------|---------|----------|-----------|
| Sewu | | | | Efficient |
| Indonesia | | | | |
| Tbk | | | | |

Source: the processed data of researches

CONCLUSION

Based on the discussion and calculations carried out using the Capital Asset Pricing Model (CAPM) method in the 10 (ten) companies in the Fish, Meat & Poultry sector in Indonesia above, the researcher can conclude that there are only 2 companies in the Fish, Meat sector , & Poultry in Indonesia which has efficient shares, namely Charoen Pokphand Indonesia Tbk and Morenzo Abadi Perkasa Tbk because they have a stock return value that is greater than the CAPM return value. Morenzo Abadi Perkasa Tbk is highly recommended for investors to invest in companies in the Fish, Meat & Poultry sector in Indonesia because it has the most efficient shares based on calculations using the Capital Asset Pricing Model (CAPM) Method.

REFERENCE

Crisdianto, Ongki Vebyan. 2016. Analisis Penerapan Capital Asset Pricing Model (CAPM) Sebagai Dasar Dalam Pengambilan Keputusan Investasi (Studi Pada Saham-Saham Perbankan yang Listing di BEI Periode 2013-2014). Jurnal Ilmiah. Fakultas Ekonomi dan Bisnis Universitas Brawijaya

Fabozzi, Frank J. 2004. *Manajemen Investasi*. Jakarta. Salemba Empat

Fahmi, I. 2014. *Manajemen Keuangan Perusahaan dan Pasar Modal*. Jakarta: Mitra Wacana Media

Kota, Gabriel Cefin Putra dan Yudi Setyawan. 2021.

Peramalan Jakarta Stock Exchange Composite
Index dengan Metode Fuzzy Time Series
Markov Chain dan Modifikasi Adaptive Fuzzi
Time Series. Jurnal Statistika Industri dan
Komputasi. Vol. 6 No. 01

Rossi, Matteo. 2016. The Capital Asset Pricing Model: A Critical Literature Review. Global Business and Economics Review. Vol. 18 No. 5

Syamsudin, Lukman. 2022. *Manajemen Keuangan Perusahaan*. Jakarta. PT. Raja Grafindo

Virlics, Agnes. 2013. Investment Decision Making and Risk. Procedia Economics and Finance. Vol. 6

finance, yahoo.com. Yahoo Finance. Jakarta Composite Index (^JKSE) Charts, Data, & News - Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/%5EJKSE?p= ^JKSE&.tsrc=fin-srch

finance, yahoo.com. Yahoo Finance. PT Asia Sejahtera Mina Tbk (AGAR.JK) Stock Price, News, Quotes – Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/AGAR.JK?p= AGAR.JK&.tsrc=fin-srch

- finance,yahoo.com. Yahoo Finance. PT Charoen Pokphand Indonesia Tbk (CPIN.JK) Stock Price, News, Quotes Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/CPIN.JK?p=C PIN.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Widodo Makmur Unggas Tbk (WMUU.JK) Stock Price, News, Quotes Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/WMUU.JK?p = WMUU.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Dharma Samudera Fishing Industries Tbk (DFSI.JK) Stock Price, News, Quotes – Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/DSFI.JK?p=D SFI.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Japfa Comfeed Indonesia Tbk (JPFA.JK) Stock Price, News, Quotes – Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/JPFA.JK?p=J PFA.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Central Proteina Prima Tbk (CPRO.JK) Stock Price, News, Quotes – Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari

- https://finance.yahoo.com/quote/CPRO.JK?p=CPRO.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Morenzo Abadi Perkasa Tbk (ENZO.JK) Stock Price, News, Quotes Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/ENZO.JK?p= ENZO.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Era Mandiri Cemerlang Tbk (IKAN.JK) Stock Price, News, Quotes — Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/IKAN.JK?p=I KAN.JK&.tsrc=fin-srch
- finance,yahoo.com. Yahoo Finance. PT Malindo Feedmill Tbk (MAIN.JK) Stock Price, News, Quotes Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/MAIN.JK?p= MAIN.JK&.tsrc=fin-srch
- finance, yahoo.com. Yahoo Finance. PT Sreeya Sewu Indonesia Tbk (SIPD.JK) Stock Price, News, Quotes Yahoo Finance [Diakses pada 16 Desember 2022]. Diakses dari https://finance.yahoo.com/quote/SIPD.JK?p=SI PD.JK&.tsrc=fin-srch