



# Value Creation-Based Financial Performance, Factors Macroeconomics and its Influence on Stock Returns Agricultural Sector

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**Abstract:** The primary performance metric used by investors to evaluate the efficiency of capital investments is stock return. After the mining industry, the agricultural sector's stock price index volatility from 2015 to 2021 produced the second-lowest annualized return. Businesses can generate corporate value that is closely tied to stock returns by utilizing value creation-based performance analysis (EVA, MVA, Q-Tobin). Furthermore, stock returns may also be impacted by outside variables. The objectives of this study are to: (1) examine the financial performance of agricultural companies using Q-Tobin, MVA, and EVA; (2) examine the relationship between Q-Tobin, MVA, and EVA and macroeconomic factors (exchange rates and inflation) on stock returns in the agricultural sector; and (3) draw managerial conclusions from the analysis's findings. Eight companies in the agricultural sector that were listed on the Indonesia Stock Exchange prior to 2015 provided the data. In order to ascertain the impact of macroeconomic variables, EVA, MVA, Q-Tobi, and panel data on stock returns, this study used descriptive analysis to evaluate the EVA, MVA, and Q-Tobi of each firm. The majority of the enterprises had negative EVAs, according to the results. However, the MVA study reveals that most businesses achieve positive MVA. The majority of the companies produce a value of  $q < 1$ , according to the Q-Tobin data. Only the MVARET and Q-Tobin RET variables significantly improve stock returns, according to the REM analysis. Exchange rates, inflation, EVARET, and fictitious crises don't significantly affect stock returns.

**Keywords:** Agricultural sector; Stock return; Value creation-based performance analysis.

## Introduction

The role of the capital market in supporting the The economy of a country is considered increasingly important (Vo, 2010). Currently, a country's economic indicators, besides being measured through GDP growth as well can be measured through the performance of the capital market index which is an indicator of investor confidence (Mc Eachern, 2001).

Along with the development of the Indonesian economy In Indonesia, the role of the capital market is very strategic in supporting national development as well sources of financing and investment other than per-foreign banks and loans. The transfer process Capital witness takes place in a special market known as the stock exchange (Jhingan, 2007).

The main product of the stock exchange is stock. The shares traded fluctuate depending on the

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transaction made (Todaro, 2002). Therefore that investors should be able to estimate movement of the stock price index on the stock exchange. The capital market index in Indonesia is referred to as Composite Stock Price Index (IHSG) (Ratnasari et al., 2021). consists of nine sectoral indices, namely agri-business, mining, basic industry, various industries, consumer product industry, property and real estate, infrastructure, financial institutions, per-trade, services, and investment (IDX, 2020).

The agricultural sector is seen as having a role important in the growth rate of the economy in Indonesia. During 2015 up to 2021, the agricultural sector and its sub-sectors including plantations, fisheries, animal husbandry and Forestry has experienced growth in the Gross Domestic Product (GDP) tour. During the year 2015 to 2021, the agricultural sector occupies third in the structure of Indonesia's GDP, at under the processing industry sector and sector trade, hotels and restaurants by GDP value in 2015 amounted to IDR 453.88 trillion so IDR 513.73 trillion in 2021 (BPS, 2023).

The development of the agricultural sector in the market capital also shows the performance of its shares Good. During the period 2015–2021, on average share price index of the agricultural sector together the mining sector ranks more high compared to other sectors (Utama, 2019). As shown in figure 1, since 2016 stock price index of the agricultural sector already passed the 1,000 point mark. From a stock price index movement perspective, that the agricultural sector has movement very volatile stock price index. Fluctuations in the movement of sector stock price indices agriculture also affects the stock return generated.

During the period 2015 to 2021 the agricultural sector ranks the most lower after the value-related mining sector annualized return, which is -199.72% as can be seen in Table 1.

**Table 1.** Index Annualised Return (2015-2021)

Index	Annualised Return (2015-2021)
IHSG	4.6%
Agriculture	-10.33%
Mining	-13.55%
Basic Industry and Chemical	12.34%
Various Industries	13.55%
Consumer Goods	21.44%
Property and Real Estate	-5.33%
Transportation and Infrastructure	4.15%
Finance	4.55%
Services and Investment	
Trading	-14.6%

As is well known, that decision investors are strongly influenced by the return value accepted. Return

is the main indicator of Corporate finance ladies create value for investors in the form of dividend payments or capital gains (Barney, 1986). Performance measurement is one of the important factors that for corporate financial planning. Performance measurement is one factor useful for financial planning a company. EVA is one such tool. measuring the company's financial performance directly related to the intrinsic market value a company. MVA is a relatively important method of assessing performance companies, especially in measuring the size the creation of shareholder value shares, which can be seen through the market value (market price) of the company (Supriani & Pernamasari, 2021). Use of Q-Tobin intended to assess the ability of business in managing assets to create profitable capital market value. Related with the influence of the three methods on stock returns, empirically produce results diverse.

In determining stock returns other than in- affected by the company's performance is also affected soul of external factors. these factors includes macroeconomic factors and includes other external factors, such as a crisis economy. Based on (Indonesia, 2022), that the agricultural sector is one sector those most affected by the crisis as a result most transactions are done in kind export and import. Inflation is one of the macroeconomics which shows various price increases products and services in a certain period.

This condition affects purchasing power consumers when buying a product or service so that the company's performance in the form of profit as well as the resulting returns to investors (Novado & Hartomo, 2017). The exchange rate reflects the position of the exchange rate a country (home currency) against other countries (foreign currency). Given the rupiah exchange rate refers to the US dollar, then when it occurs weakening of the value of the rupiah against the US dollar, then companies that sell their products in the form of dollars will experience advantage because the value becomes large when converted into rupiah currency. This matter will also affect the return obtained by the shareholders. Therefore, this research aims analyze the company's financial performance in the agricultural sector listed on the IDX with using the EVA, MVA, and Q-Tobin methods, analyze the effect of EVA, MVA, and Q-Tobin and macroeconomic factors (Inflation and value exchange) on stock returns in companies in the agricultural sector listed on the IDX, as well develop managerial implications of the results of the analysis which is conducted.

## Method

### Hypothesis

The hypothesis formulated in the research these are predefined variables it has an influence on stock returns. Based on several previous studies (Bacidore et al., 1997), show relatively mixed results. In terms of the effect of the EVA variable relationship on returns stock, then s stated that EVA has a significant correlation on stock returns. Different results stated by (Sharma & Kumar, 2010) who stated that variable EVA has an insignificant effect on stock returns.

Same is the case with research on EVA, that there are mixed results regarding the relationship between MVA and returns share. Vadiei & Hosseini (2012) states that MVA variables have a significant influence with stock returns. As for the research results conducted by Supriani & Pernamasari (2021) stated different results that influence MVA variable is not significant to return share. Related to Q-Tobin analysis and linkages with stock returns, Vadiei & Hosseini (2012) states that there is a positive relationship significant relationship between Q-Tobin and stock returns. Harney & Tower (2003) explained that Q-Tobin has superiority over Price Earning Ratios in predicting levels the rate of return on the S&P 500 Index.

The use of Q-Tobin is very helpful investors in assessing their investment returns today as Q-Tobin's values reflect future capital profitability (return). presumably on its current profitability (Mankiw, 2004). Research related to the effect of inflation and value exchange against stock returns also shows relatively mixed results. Research conducted do by. Janor et al. (2010) stated that It's true that inflation and exchange rates have an effect significant effect on stock returns in the capital market India and Pakistan. Ghazali (2002) explained his research, that inflation is more influential on stock returns for the industry level in-compare company level. Different results done by Sodikin (2007), that for agriculture sector industry, inflation and exchange rates has a weak effect on returns share. Janor et al. (2010) describes the results research in Malaysia that inflation is not has a significant relationship with return share.

Research related to the influence of the financial crisis globally, among others, were carried out by (Ali & Afzal, 2012). The results of their research on the capital market India and Pakistan from 2003 to year 2010, stated that the global financial crisis more negative effect on stock returns in the Indian capital market compared to Pakistan. Empirical research regarding the EVA method, MVA, and Q-Tobin have done a lot, however the use of variables these are rarely carried out together an. In terms of the object of research, apparently not yet Many studies have been conducted using all three the method. According to Fortune in Chung and Pruitt (1994), financial managers agree that assessment through Q-Tobin, EVA, and MVA give relatively the same results.

Therefore Therefore, the study used three analytical methods This is a breakthrough and a challenge alone to prove it. it is in-plus the presence of factors macroeconomic (inflation and exchange rate) and factors others in the form of the global financial crisis that strengthen and expand the variables of this study.

Based on previous studies, the Formulators the hypothesis is :

$$H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0 \quad (1)$$

Where:

EVA, MVA, Q-Tobin variables, macroeconomics (inflation rate and exchange rate), as well as variables the crisis has no effect on stock returns companies in the agricultural sector listed on the IDX.

$$H_0 : \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq 0 \quad (2)$$

Where:

EVA, MVA, Q-Tobin variables, macroeconomics (inflation rate and exchange rate), as well as variables the crisis has an impact on stock returns companies in the agricultural sector listed on the IDX.

**Table 2.** List of Agricultural Sector Issuers on the Exchange Indonesian Securities (BEI)

Name of Shareholder	Issuer Share
Plantation Sub Sector	
PT Astra Agro Lestari, Tbk	AALI
PT PP London Sumatera Indonesia, Tbk	LSIP
PT Sinar Mas Agro Resources and Technology, Tbk	SMAR
PT Tunas Baru Lampung, Tbk	TBLA
PT Bakrie Sumatera Plantation, Tbk	UNSP
Livestock Sub Sector	CPDW
PT Cipendawa, Tbk	
Fisheries Sub Sector	DSFI
PT Dana Samudera Fishing Industries Tbk	
Other Sub Sectors	BTEK
PT Bumi Teknokultura Unggul, Tbk	

Location and Time Research is carried out by collecting data secondary of Eight companies in the sector agriculture whose shares are listed on the Stock Exchange. The eight companies are in Table 2. The data in Table 2 is processed and analyzed to get an idea of performance finance, added value and market value as well relationship of influence of components on the company's financial performance. The research was carried out over four periods months, from March to May 2023.

#### *Research design*

The research was conducted on public companies in the agricultural sector which has announced complete financial reports for the period 2015-2021 (Imam, 2016). The research was carried out through qualitative and quantitative descriptive approaches econometrics is interpreted based on theory and literature regarding EVA, MVA, and, Q-Tobin, macroeconomic factors, and Stock returns. Besides that, analysis is used regression using panel data. Regression analysis used to determine the effect of EVA, MVA, Q-Tobin, and macroeconomic factors on stock returns.

#### *Data and Information*

The data used includes quantitative data and qualitative data consisting of data secondary such as consolidated financial statements of companies on an annual (audited) and quarterly basis obtained from [www.idx.co.id](http://www.idx.co.id), site related companies, and BEI library, data historical IHSG and company share prices obtained from [www.duniainvestasi.com](http://www.duniainvestasi.com) and [www.finance.yahoo.com](http://www.finance.yahoo.com), data on the rupiah exchange rate against the US dollar obtained from [www.fx.sauder.ubs.ca](http://www.fx.sauder.ubs.ca), inflation rate data obtained from [www.bi.go.id](http://www.bi.go.id), as well as literature study with studying books related to research, internet, journals and other articles related to this research.

#### *Data and Information Retrieval Methods*

Data collection techniques used in this financial performance research with using purposive sampling technique, namely withdrawal with purpose or consideration certain (Juanda, 2009). Some criteria in sample selection is a company going public in the agricultural sector which has been recorded as issuers on the Indonesian Stock Exchange (BEI) and The company issues financial reports annually every year and also listed prices its shares during the period 2015-2021.

#### *Data Processing and Analysis Techniques*

Data processing to find out the value EVA, MVA, Q-Tobin, inflation, exchange rates, and Stock returns are carried out quantitatively, using Microsoft Excel software. To determine the influence of the independent variables with the dependent variable using analysis. Panel data regression was also carried out quantitatively, namely with the EViews version 6 program. After all the data has been processed and the values are known, descriptive analysis is carried out for explain the comparison between variables, then The influence between variables is also explained tested.

#### *Panel Data Regression Analysis*

This research uses regression analysis panel data. Panel data is a combination time series data and cross section data. With In other words, panel data is data obtained from repeatedly observed cross section data on

the same individual unit (object) at time different. Thus, it will be obtained a description of the behavior of several objects over several periods of time. (Juanda and Junaidi 2012).

Panel data regression analysis in this research is the influence of the EVA, MVA, Tobin's Q, Inflation and Exchange Rate variables on stock returns. The equation model used in the equation is as follows:

$$R_{it} = \alpha + \beta_1 EVARET_{it} + \beta_2 EBARET_{it} + \beta_3 Q - TobinRET_{it} + \beta_4 Inflation_{it} + \beta_5 Exchange\ Value_{it} + \beta_6 Dummy_{it} + e_{it}$$

Where:

$I$  = n company shares

$t$  = n years of observation

$\alpha$  = intercept

$\beta_i$  = independent variable regression coefficient (slope)

$R_{it}$  = return of stock  $i$  in year  $t$

$EVARET_{it}$  = EVA Return value of share  $i$  on

year  $t$   $MVARET_{it}$  = MVA Return value of share  $i$  on year  $t$

$Q-TobinRET_{it}$  = Q-Tobin Return value of shares  $i$  in year  $t$

Inflation = Inflation value of share  $i$  in year  $t$

Exchange Rate = Rupiah currency value against US dollar shares  $i$  year  $t$

Dummy = Dummy variable at time and there was no global financial crisis

#### *Selection of the Best Model*

To select the best model from three approaches, namely the pooled least squares (PLS) model, The fixed effect model and the random effect model require a tool to test the model. there are three testing tools for selecting panel data models, namely Chow Test, LM Test, and Hausman Test (Hausman Test) (Ghozali, 2013). The Chow test is used to choose whether the model is PLS or Fixed Effect. LM Test is a test tool for selecting between the PLS or Random Effect model. Test Hausman is used to select the Fixed Model Effect or Random Effect (Juanda, 2009).

## **Result and Discussion**

#### *Performance Analysis Based on EVA*

EVA analysis of eight companies shows the results of fluctuations during the observation period from 2015 to 2021. Based on the mean value, there are four The company has a negative mean value, which means that most of the company's EVA data is valuable negative. Only AALI, LSIP and SMAR issuers which has a positive mean value. Apart from that, there are five companies, namely SMAR, TBLA, UNSP, CPDW, DSFI, BTEK have standards deviation is greater than the mean value. Matterthis means the degree of deviation of the data distribution these five companies are greater than the



mean value. In terms of data normality, then can be seen from the Jarque-Bera value and its probability. If the Jarque-Bera value is not significant (less than 2) and the probability value is more greater than the 5% confidence interval, then the data normally distributed (Winarno, 2011). All companies have normally distributed EVA data because the Jarque-Bera (JB) value is smaller than 2 and the probability value is greater than the interval 5% confidence. This is as explained in Table 3.

**Table 3.** Descriptive Statistics of Sector EVA Data Agriculture 2015-2021

Emiten	Mean	Deviation Standard	Jarque Bera Test	Probability*
AALI	975145.8	456712.3	0.7122	0.6178
LSIP	255155.3	281231.4	1.0331	0.5177
SMAR	221441.2	413499.2	0.4111	0.8911
TBLA	-481223.1	112134.5	0.8121	0.6223
UNSP	-212334.9	321255.3	1.4121	0.4133
CPDW	-4533.21	2445.34	1.4421	0.4245
DSFI	-41123.77	41022.34	0.4512	0.7721
BTEK	-19212.78	4112.411	0.5661	0.7833

Note: \*) P value <0.05

**Table 4.** Development of EVA Values in the Agricultural Sector for the 2015–2021 Period

Emiten	Eva Positive	Eva Negative
AALI	6	1
LSIP	6	1
SMAR	5	2
TBLA	3	4
UNSP	4	3
CPDW	1	6
DSFI	3	4
BTEK	1	6

Based on the grouping of EVA values, the total EVA value for each company is detailed positive and negative values. As explained in Table 3, only the companies AALI, LSIP, and SMAR which has a positive EVA number more than the negative EVA value. This condition shows that the company able to improve its performance in create useful company value for investors or interested parties (stakeholders). On the contrary, there are four companies that produce EVA value more negative than the EVA value positive, even the companies CPDW and BTEK has an EVA value that is entirely negative.

#### Performance Analysis Based on MVA

MVA analysis of eight companies shows the results of fluctuations during the period observations from 2005 to 2011. As explained in Table 5, as many as seven companies have a mean value positive which means most of the MVA data positive value company. Only UNSP issuers which has a negative mean value. There

are five the company has a standard deviation value greater than the mean value. Then, There are six companies that have data MVA is normally distributed because the JB value is more smaller than 2 and the probability value is greater from a 5% confidence interval.

Based on the grouping of MVA values, the total MVA value for each company is detailed positive and negative values. There are five companies that own it the number of positive MVAs is greater in comparison negative MVA value. This condition shows that the company in general is partial able to increase the holder's wealth shares of invested capital. There is three companies that produce MVA value more negative than the MVA value positive. This is as explained in Table 6.

**Table 5.** Descriptive Statistics of Sector MVA Data Agriculture 2015-2021

Emiten	Mean	Deviation Standard	Jarque Bera Test	Probability*
AALI	21939123	12997123	0.5113	0.7611
LSIP	611553.2	40112231	4.5677	0.1112
SMAR	6211332	5147801	0.6154	0.7221
TBLA	531114.1	712919.2	0.7488	0.6614
UNSP	-283155.5	3667131	0.3552	0.8193
CPDW	677.221	4150.500	0.3766	0.8411
DSFI	4712.56	61745.56	0.6117	0.7291
BTEK	23156.9	453742.1	1.4765	0.4912

Note: \*) P value <0.05

**Table 6.** Development of MVA Values in the Agricultural Sector 2015–2021

Emiten	Eva Positive	Eva Negative
AALI	6	1
LSIP	4	3
SMAR	7	0
TBLA	7	0
UNSP	3	4
CPDW	4	3
DSFI	4	3
BTEK	3	4

#### Performance Analysis Based on Q-Tobin

Q-Tobin analysis of eight companies shows results that also fluctuate over time observation period from 2015 to with 2021. A total of four companies has a mean value  $q > 1$  which means partial The size of the Q data for these four companies is more greater than 1. There are seven companies having standard deviation value that is smaller than the value mean. This means in general Q-Tobin data good because of the level of distribution deviation data is smaller than the mean value. Then, the data for most companies with normal spark plug distribution, except LSIP and UNSP which do not normally distributed because the JB value is greater of 2 even though the probability value is greater from a 5% confidence interval. This is as explained in Table 7.

**Table 7.** Descriptive Statistics of Each Q-Tobin Data Company Period 2015-2021

Emiten	Mean	Deviation Standard	Jarque Bera Test	Probability *
AALI	4.34421	2.134429	0.5213	0.7215
LSIP	0.81211	0.512399	2.5661	0.2671
SMAR	1.21123	0.617881	0.8128	0.6113
TBLA	0.81233	0.352139	0.9212	0.6171
UNSP	1.21389	0.491201	2.6121	0.2891
CPDW	0.5321	0.4562	1.7110	0.4101
DSFI	0.5341	0.4671	0.8312	0.6121
BTEK	3.6400	5.2131	1.4221	0.4566

Note: \*) P value <0.05

**Table 8.** Development of Q-Tobin Values for Each Company for the 2015-2021 Period

Emiten	q>1	q<1	q=1
AALI	6	1	0
LSIP	2	5	0
SMAR	3	4	0
TBLA	2	5	0
UNSP	3	4	0
CPDW	2	5	0
DSFI	2	5	0
BTEK	3	4	0

Based on the grouping of Q-Tobin values, There are five companies, namely LSIP, SMAR, TBLA, UNSP, CPDW, DSFI, and BTEK own it q value < 1, while the AALI have q>1. there is no company that has a value of q=1. Tobin's Q results show that the majority shares of agricultural sector companies are undervalued, which

means management is less successful in manage its assets so that it has an impact low investment growth potential. Matter This is as explained in Table 8.

#### *Analysis of the Influence of Performance Based Variables*

Value Creation and Macroeconomics towards Stock returns Based on Chow test and Breusch-Pagan test LM, then the best model is obtained, namely Random Effect Model (REM). Model regression equation is :

Stock returns = 0.141 + 0.006EVARET + 0.064MVARET + 0.274Q-TobinRET + 1.521Inflation - 0.231Exchange-0.391Dummy.

The resulting REM model can overcome this problems in classical assumption tests, such as heteroscedasticity and autocorrelation due to using GLS (Generalized Least Square). Results The REM model explains that value the termination coefficient (R2) is only 64.00%. This means that the regression model can only be explains 64.00% about stock returns, while the remaining 36.00% is explained other variables. Thus the regression model that's quite good. There are only two variables independent who has a significant influence on the movement of stock returns, namely MVARET and Q-Tobin RET. Based on test F, shows the probability of an F value of 0.000000. This means the independent variable simultaneously affects stock returns significantly because the significance value is more smaller than 0.05, as shown in Table 9.

**Table 9.** Effect of Performance Based Variables Value Creation and Macroeconomics towards Stock Returns for the Quarterly Period 2005 to 2015 2021, REM Model

Variabel	Coefficient	Std Error	t-Statistics	Probability*
EVARET	0.0061	2.134429	0.5213	0.7215
MVARET	0.0651	0.512399	2.5661	0.2671
QTOBINRET	0.2751	0.617881	0.8128	0.6113
INFLATION	1.5262	0.352139	0.9212	0.6171
EXCHANGE	-0.232	0.491201	2.6121	0.2891
DUMMY	-0.391	0.4562	1.7110	0.4101
C	0.144	0.4671	0.8312	0.6121
		5.2131	1.4221	0.4566
R-Squared		0.641		
Prob(F-Statistic)		0.000		

Regarding the t test, the relationship between each independent variable with a dependent variable. The EVARET variable has a probability of 0.476 with  $\alpha = 5\%$  and a coefficient of 0.006. This means that the EVARET variable has an insignificant positive influence on returns share. Each EVA value changes accordingly with changes in stock returns, but the influence is weak. The results of this study are inconsistent with the results of research by Bacidore et al. (1997) who explains that EVARET has a correlation which is significant with stock returns. Part The size of the companies studied (600

companies) are companies big in the United States included in Stern Stewart Performance 1000 Database and has apply the EVA method. Ismail (2011) stated in his research that EVA is positive and Negative EVA has an insignificant relationship with inadequate stock returns and EVA used as a method in predicting company performance.

EVARET results that have an impact not significant to stock returns because some companies have movements The EVA value is the opposite of the return movement share. Apart from that, there are companies

that have stagnant movement of stock returns for several periods, but has movement EVA values fluctuate, as happened in DSFI issuers. This condition is what strengthens it that the stock returns of most sector issuers agriculture is not affected by EVA. Factor business risks, corporate governance and market capitalization of agricultural sector companies vary, thus differentiating perceptions investors regarding the performance of the company's shares.

MVARET Variable Based on the REM model, that the MVA variable has a probability of 0.000 with  $\alpha = 5\%$  and a coefficient of 0.065. This is meaningful The MVA variable has a positive influence significant to stock returns. Research result This is in line with the results of Ismail (2011) which states that MVPET has a significant influence on stock returns 20 manufacturing company from 1996 to 2000. Companies that have positive MVA tend to produce positive stock returns. This is a market response to performance company shares that have market value equity that is higher than book value equity. Likewise, vice versa for companies that produce negative MVA values. Companies that can focus on business primarily usually produces a positive MVA, and this is proven by Sakthivel et al. (2014). Supriani & Pernamasari (2021) stated that investors in Indonesia before making an investment first pay attention to market reaction to company performance.

The Q-Tobin RET variable has a probability 0.003 and a coefficient of 0.275. These results are telling that Q-Tobin has a positive influence significant to stock returns. Vadieli & Hosseini (2012) explains his research on 120 companies registered in Tehran Stock Exchange that Q-Tobin has a strong relationship to stock returns. Companies that are able to manage their assets adequate in the form of increased business, then investor response to the company's stock performance is positive. (Deangelis, 2022) states that the higher a company's performance in generating profits, the more meaningful it is companies can increase investors' wealth. Herney and (Harney & Tower, 2003) stated in his research that changes in the Q-Tobin value were the cause of stock returns and can predict future stock returns.

The inflation variable has a probability of 0.632 and a coefficient of 1.525. This means that inflation has an insignificant positive effect on stock returns. The results of this study are not in accordance with research by Janor et al. (2010) explain research results in Malaysia show that inflation is not has a significant relationship with returns stock is due to the perception of investors in developing countries that are different from those in developed countries in determining movements stock returns. Not only determined by price forces of supply and demand shares that can determine stock returns, but also from other variables such as policy monetary factors

of a country, market psychological factors, political and social conditions, and so on.

The exchange rate variable has a probability 0.911 and a coefficient of -0.232. This means that the exchange rate variable has a negative influence which is not significant to stock returns (Sodikin, 2007) strengthens the results of this research that for the agricultural sector industry, the exchange rate has a weak influence on returns share. Diverse business and product characteristics causes the exchange rate to have no effect on stock returns. For companies whose sales orientation is not exported and whose production inputs rely on external sources, such as materials raw materials and supporting materials (fuel oil), then the appreciation in the value of the rupiah benefits the company in terms of production efficiency so that its products can be competitive in market. This is in accordance with the research results in Singapore (Maysami et al., 2004).

However, some other companies, such as the plantation subsector which has Export orientation and product dominance are determined by world prices in dollars, then changes in exchange rates affect their sales results and competitiveness in the market so that It also affects stock performance. The crisis dummy variable has a probability 0.438 and a coefficient of -0.392. These results show that the crisis dummy variable has an insignificant negative influence on returns share. Ali & Afzal (2012) explain the results his research that the global financial crisis did not influence on stock returns in the market capital of Pakistan.

During the Covid 19 in 2020 saw quite a big shift assets and capital by foreign investors from Indonesia to a relatively safe country, thus influencing the performance of shares on the Indonesian stock exchange. (Kurniadi et al., 2013) explains that most transfer of assets and capital from Indonesia dominantly occurs in companies plantation subsector because these companies have capital capitalization the big one. Foreign investors prefer large companies because they are familiar with them and thus avoid asymmetric information (Chandra 2010). It's just that not all agricultural sector companies are issuers large and well-known, especially issuers in the subsector Apart from the plantation subsector, the value of foreign investment ownership is not too large it is possible that it has no effect global financial crisis, in addition to considerations other factors rule out a crisis financial happenings.

## Conclusion

Based on the results of the discussion above, then can be concluded as follows, first, the majority of these companies produce negative EVA values are more numerous than values EVA positive. MVA results produce the opposite, It turns out that most companies

produce more positive MVA values than that negative MVA value. Then the Q-Tobin value produces relatively the same results as EVA, which most companies produce  $q < 1$  values are more numerous than  $q > 1$  values. There is no difference in the results of the three methods in accordance with the statement from Chung & Pruitt (1994) explain that the results of these three methods produce value which is relatively the same. The differences in the results of the analysis are more due to differences in capital structure and company assets, management capabilities company, business capacity, characteristics product, and business risks. The variables MVPET and Q-TobinRET which has a significant influence on stock returns, while EVARET, macroeconomic factors and the global financial crisis does not have a significant effect on stock returns. The managerial implications of the results of this analysis for Investors can provide input for evaluating and selecting investment alternatives for several agricultural sector companies based on the results of EVA, MVA, and Tobin's Q analysis. Apart from that, with the results of REM modeling also influence investors' decisions that other factors besides the MVPET variable and Q-TobinRET is the main basis for assessment investors on the performance of company shares agricultural sector. Results of EVA, MVA, and analysis Q-Tobin provides guidance for the company to take strategic steps by paying attention to the main elements of the three methods the.

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### Author Contributions

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The authors declare that there is no conflict of interest regarding the publication of this paper.

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