Palm Plantation Subsector : Internal and External Impact on Stock Returns Analysis

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Abstract: *Palm plantation subsector is one of the alternative to invest in stock market. There has been a phenomenon with the decline trend of stock returns in the period of 2010-2015. As an export-based commodity subsector, currency depreciation should be increasing the issuers performance, but it shows the opposite. The CPO price decline trend shows that during the years of 2010-2015 has an impact to palm plantation subsector stock returns. In the year of 2016 CPO Price Increase and will become a positive sentiment. This study aimed to determine the impact of internal and external factors to the palm plantation stock returns in Indonesia Stock Exchange. The method used is data panel estimation with time period between 2010 to 2015 with seven issuers that has never been delisted within period. The result of this study indicates that the Quick Ratio (QR), Price EarningRatio (PER), and CPO price (HMS) has a significant impact on palm plantation subsector returns at the five percent level.*

Keywords: palm plantation subsector stock returns, fundamental analysis, macroeconomic factors.

1. Introduction

Stock is one of investment instrument that has been chosen by many investors in the stock exchange (Chen, Goldstein and Jiang, 2007). According to Wijaya (2013), the stock is defined as a sign of ownership or possession of any person or entity into a company. Issuing shares is one option the company wants to raise an external funding to companies (Gregoriou, 2011).

According to MPOB (2015), Indonesia and Malaysia was the main producer of palm oil by 86% of the total world production. Hence the palm oil industry in Indonesia has become one of the main contributor toGDP. According to study byAshiqin and Widyastutik (2011). Indonesia has CPO advantage competitiveness better than Malaysia. Demand for palm oil is currently absorbed by the countries of China, India, and Europe (Rifai, Shaukat, Siregar, and Sa'id, 2014).
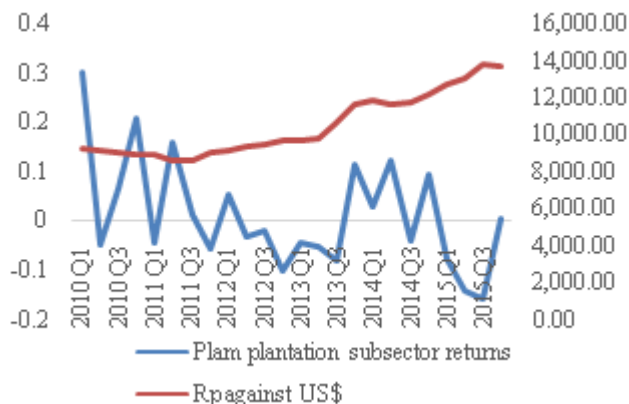

Figure 1: Changes in the level oflistedpalm plantation subsectorstock returns and the Rupiah against the US\$ during the period of 2010-2015

Palm plantation subsectorstock returns experienced a change in trend and likely to decline during the period of 2010 to 2015. The decline in the returns can be impact by negative sentiment derived from the internal and external factors, based on Figure 1 Rupiah value began to show a devaluation trend against the US\$and have significantly increased from the second quarter of 2011 to the fourth quarter of 2015. In that period the plantation subsector that rely on exports experienced a phenomenon of decline in stock returns.

The palm oil price changes in the period of 2010 to 2015 showed a decline trend, the decline is thought to have an impact on the trend of listed palm plantation subsector stock returns. CPO prices showed a trend to rebound in the first quarter 2016 to the second quarter of 2016. The increase in CPO prices could be a positive sentiment to the oil palm plantation subsector issuers in year the of 2016. This can be seen in Figure 2.

Figure 2: CPO Price change during the years of 2010-2016

According to study by Arabsalehi and Mahmoodi (2012)the traditional fundamental analysis (PER, EPS, ROA, ROE, ROS, and CFO) is able to associate better on stock returns than modern fundamental analysis (EVA, REVA, MVA). Through fundamental analysis approach (liquidity ratios, profitability, solvency and market ratio) as well as macroeconomic factors can help this study to determinethe impact to stock returns during years of 2010-2015. According to Artha, Achsani, and Sasongko (2014), fundamental analysis can take into account the risk level and profits that can be received by

investor. The external factors may affect the multiple companies cashflowsimultaneously and sensitivity to market levels and also impact the company's performance and stock price (Benakovic&Posedel, 2010). Internal factors can describe the performance of firms and fundamental condition of the company, while external factors of macroeconomic conditions may affect decisions in running the operations of each company. Therefore, this study aims to analyzedthe impact of internal factors (QR, DER, ROE, EPS, PER) and external factors (Rupiah against the US$, the rate of inflation, and the price of CPO) on listed palm plantation subsectors stock returnsin Indonesia Stock Exchange during years of 2010-2015.

2. Data

The data used in this study are secondary data, in the form of annual report and quarterly reports of issuers such as Quick Ratio (QR), Debt to Equity (DER), Return on Equity (ROE), Earning per Share (EPS), Price Earning Ratio (PER), Inflation(INF), CPO Price (HMS), Rupiah (IDR) against US$ (NTR) and compliance data during period of 2010 - 2015, as well as stock returns.This study was focused on listed palm oil companies and does not undergo delisting on the Indonesian Stock Exchange during the period of 2010 - 2015 and publish financial statements that have been reported and published.The population of this study is the palm plantation subsector company which is listed as a public company (issuer) at the Indonesian Stock Exchange in the period of 2010 and was recorded until 2015. The sampling method in this study is purposive sampling, and taken as many as seven companies from a total of sixteen companies that meets the criteria.

3. Methodology

This studyusesquantitative approach with panel data analysis.Here is the equation model of internal and external variables impact on palm subsectorsstock returns (Y):

$$R_{it} = a_0 + a_1 QR_{it} + a_2 DER_{it} + a_3 ROE_{it} + a_4 EPS_{it} + a_5 PER_{it} + a_6 NTR_{it} + a_7 INF_{it} + a_8 HMS_{it} + e_{it}$$

Hypothesis: $a_1, a_3, a_4, a_8 > 0$; $a_2, a_6, a_5, a_7 < 0$

Information :
R_{it} = Return stock
QR = Quick ratio
ROE = Return on equity
DER = Debt to equity ratio
PER = Price earning ratio
EPS = Earnings per share
INF = Inflation
NTR = Rupiah(IDR) against the US$
HMS = CPO price
a_0 = Intercept
it = Cross Section of i (1,2,3 ... 8), time of t (1,2,3 ... 5)
e = Standard error or the error rate

4. Empirical Results

The model used in this study is through the BLUE assumption terms (Best Linear Unbiased Estimators). In the classical assumption test is not found of any heteroscedasticity, multicollinearity, and autocorrelation sign and have the normal distribution of data so that it can continue to do panel data estimation. Panel data estimation results are presented in Table 2.

The panel data analysishas three approaches model, namely Pooled Least Square or Common Effect (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). Determining the best model is done by the Chow test. The results of the Chow test calculations H_0 is rejected and H_1 accepted, in this study the Pooled Least Square (PLS) model is better than Fixed Effects Model (FEM). Since the number of cross-section less than the total of variables used on this study so Hausman test can't be done.

Table 2: The results from panel data estimation with pooled least square (PLS)

variable	coefficient	Std. Error	t-Statistic	Prob.
QR	0.011	0.002206	5.334	0.0000
DER	-0.012	0.013112	-0.967	0.3350
ROE	0.140	0.085908	1.635	0.1040
PER	-0.0003	2.19E-05	-14.73	0.0000
EPS	0.004	0.003509	1.174	0.2418
NTR	-0.060	0.050185	-1.200	0.2315
INF	-0.060	0.662348	-0.091	0.9275
HMS	0.196	0.052791	3.727	0.0003
C	-2.604	1.103779	-2.359	0.0195
R-squared	0.390	Prob (F-statistic)	0.000	

Based on the panel dataanalysis result, there are three variables that significantly impact on palm plantation subsectorstock returns, those variable areQR, PER, and HMS. QR variable has significant impact and a positive coefficient that is consistent with the hypothesis. The high value of QR illustrates the company's ability to fulfill its short-term liability and will impact the increase in corporate revenueand make the company's financial condition improved, as well as the impact on the increase in stock returns. The results are consistent with study ofPurwono, Sugyaningsih, and Istiarti (2015), as well as study ofEmrinaldi andYani (2014) which states that quick ratio variables and have a significant impact on stock returns positive coefficient.

PER variable results has significant impact and a negative coefficient on stock returns that are in line with the hypothesis. Increased of the PER value can be caused by inclining in stock prices or declining of earning per share value. It showed that during the study period, investors tend to invest in companies that have a low PER value. Low PER value can indicate that the company has the level of earnings per share which is higher than the price of the stock. These results are supported by studyof Wegand and Irons (2007), Meythi and Mathilda (2012), Emamgholipur, Pouraghajan,

Tabari, Haghparast, and Shirsavar (2013) and Akhtar and Rashid (2015) which states that the PER can have a significant impact and a negative coefficient on stock returns.

The third variable that has a significant impact on the palm plantation subsector stock returns is HMS variable. HMS has significant impact and a positive coefficient that is consistent with the hypothesis. The increase in CPO prices will increase the resale value of palm plantation subsector product so they can gain more revenue from trade. CPO price trend during the period of 2010 to 2015 showed a decline trend, so ithas an impact on the low sales value and affect stock returns. These results are consistent with study by Arianto (2011) and Nordin, Nordin, and Ismail (2014), Dirga (2015) states the price of CPO can produce a significant impact and has a positive coefficient on stock returns.

Based on the results of panel data analysis, there are five variables that has impact on palm plantation subsector stock returns but not significantly. Those variable are DER, ROE, EPS, NTR, and INF. DER variable has animpactbut not significantly and a negative coefficient that is consistent with the hypothesis. The higher the value of DER then the value of stock returns obtained by the investor decreased. High DER level means companies tend to increase the amount of debt for the company's operations. It is considered normal in the oil palm plantation sector for field operations requiring a fairly high cost. These results are consistent with study conducted by Buigut, Soi, Koskei, and Kibet (2013), and Heikal, Gaddafi and the Ummah (2014) which states that the DER mayimpact but not significantly and a negative coefficient on stock returns.

ROE shows an impact but not significantly and a positive coefficient that is consistent with the hypothesis. The higher the ROE the acquisition of the stock return obtained by investors will increase. ROE is an indicator for investors to demonstrate the ability of the owners of capital invested to generate net income applicable to the investor. These results are supported by Martanti, Mulyono and Khairurizka (2009), and Vedd and Yassinski (2015) study which states that ROE may impact but not significantly and a positive coefficient on stock returns.

Variable EPS showed that the results has an impact but not significantly and a positive coefficient that is consistent with the hypothesis. The higher the value the higher the EPS acquisition of stock returns obtained by the investor. Investors will tend to invest in stocks that provide higher EPSvalue. This is supported by studySafitri (2013) as well as Gunadi and Kesuma (2015) which states that the EPS may not impact significantly and a positive coefficient on stock returns.
NTR variables shows an impact but not significantly and a negative coefficient that is consistent with the hypothesis. When the impairment of Rupiahvalue against the US dollar occur, the acquisition of investor stock returns will decrease. Based on the financial statements of each subsector palm plantationsissuers. The composition of net sales for export is quite high because the market demand is located in the country of Brazil, China, and Europe. The value of sales of products of oil palm plantations will increase. However, palm plantation subsector has high operational requirements to be productive, and the funding source was mostly come from banks with US Dollars currency. This has an impact in the event of rupiah impairment against the US dollar, the value of the company's long-term liabilities also increased so that the income will be reduced to pay duty. The results of this study are supported by Ahmed and Masry (2006), Ratana, Achsani, and andati (2012), as well as Saputra and Dharmawangsa (2016) which states that the impairment of Rupiah against the US dollar may impactbut not significantly and a negativecoefficient on stock returns.

INF variables showsan impactbut not significantly and a negatively coefficient in line with the hypothesis of the study. When a decline happens in the inflation rate, the acquisition of stock returns obtained by investors will increase. Inflation become an indicator for investors to make an investment, the higher the inflation rate will further lower the gains due to a decline in the real value of nominal money invested. The results of study supported by study by Prihantoni (2009), Kewinoto, Mariso, and Sjahrudin (2012) which states that inflation may not impact significantly and a negative coefficient on stock returns.

5. Conclusion

Based on the study that has been done, it can be concluded as follow. On the periods of study, the internal factors which significantly impactpalm plantation subsector stock returns is the quick ratio (QR) and price earnings ratio (PER). While external factors which significantly impact on palm plantation subsector stock returns is the CPO price (HMS).

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