Stock Valuation of Palm Oil Sector in Indonesia Securities Market

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ABSTRACT

Palm oil companies are part of the company listed in IDX. Investors confronted with the uncertainty and the risk in the stock market. This research aims to calculate risk and return and to know stock valuation on palm oil companies. This research uses secondary data concerning to stock price data and Jakarta Composite Index (JCI) in five years period from April 2011 to April 2016. Obtained data was analyzed with Capital Asset Pricing Model (CAPM). the variable of this research is Risk and Return. The results of the research show that in five-year data, risk-free asset rate at 0,0611 and market return at 0,2610. UNVR, TBLA, INDF, ICBP, MYOR returns are higher than investor expected returns (R>Er), while AALI, LSIP, BWPT, GZCO, SGRO returns are lower than the expected return (R<Er). AALI, UNVR, LSIP, BWPT, TBLA, GZCO, SGRO, INDF, and ICBP are defensive stock with β < 1, while MYOR is aggressive stock with β > 1. UNVR, TBLA, INDF, ICBP, MYOR are undervalued stock that can be chosen as investment options. AALI, LSIP, BWPT, GZCO, SGRO are overvalued and not feasible stock as an investment portfolio.

Key words: Beta, Risk, Return, Capital Asset Pricing Model, Risk free asset

INTRODUCTION

Indonesia Stock Exchange (IDX) is the securities market only in Indonesia where securities trading activities occur. One of the securities instruments traded in IDX is the stock. Financial Services Authority (OJK) recorded there are 525 go public company in Indonesia Stock Exchange by March 2016 which is grouped in nine sectors; consumer goods, infrastructure, utilities and transportation, finance; trade, services and investment, basic industry and chemicals, miscellaneous industry, property, real estate and
building construction, mining and agribusiness sectors. Palm oil companies either on-farm sector (listed in agribusiness sector) or off-farm sector (listed in consumer goods sector) is part of companies listed in IDX which it stocks traded. In stock trading, investors are confronted with the uncertainty of market conditions and deviation of main market price index or Jakarta Composite Index (JCI). The uncertainty of market price leading investors to the risk, which is higher the risk that investor taken the higher potential return will they expect. Therefore it is so important for investors to know the valuation of the stock which will be chosen as investment portfolio based on risk and return. This research aims to calculate risk and return and to know stock valuation on palm oil companies.

Ramli (2009) Conduct research about risk and return of consumer goods stocks listed in IDX in 2008 using Capital Asset Pricing Model (CAPM), the results revealed there are 15 consumer goods stocks which have beta less than 1, there are only 5 worth stocks companies, those stocks are TCID, INDF, RMBA, HMSP, KAEF.

Mahbubi, et al. (2010) was studied about hedging strategy for anticipating olein commodity price fluctuation in the future market using technical and fundamental analysis. The result of study shows that daily price of olein volatility in July-December is high, Relative Strength Index (RSI) shows over-sell position and Moving Average Convergence Divergence (MACD) shows bearish trend will come, by using Auto Regressive Integrated Moving Average (ARIMA) method the daily price next month of study will decreased, positive basis value means it prices in inverted market condition, so hedge selling strategy for several months can protect the producer of olein commodity.

Lemiyan (2015) conduct research on Analysis Model CAPM and APT In Predicting Rate of Return in Sharia Stocks Index using the measurement of variability (standard deviation), the classical assumption test; Heteroskedastic test, autocorrelation test, and measurement adjusted
determination. The result shows that statistically there is no significant difference accuracy between CAPM and APT in predicting sharia stock return in Jakarta Islamic Index (JII) but CAPM is more accurate than APT in predicting sharia stocks return.

METHODS
The research used descriptive design with analyzing secondary data method. Types of data such as stock prices of palm oil companies both on-farms and off-farms. Collect data from the website of Financial Services Authority (OJK), Indonesia Stock Exchange (IDX), Bank of Indonesia (BI), yahoo finance and Mandiri Online Security Trading (MOST) application includes historical data time series stock prices of related companies for 5 years from April 2011 to April 2016. Companies will choose by filtering data with the following criteria, agribusiness and consumer goods industry companies that have a line of palm oil business and listed on the stock exchange since April 2011 until April 2016, actively traded on the regular market, never exposed to suspend more than 7 days, has a complete financial statement, and publish it every year, and pays dividend between 2011 to 2016.

Data analysis use Capital Asset Pricing Model (CAPM). This model is one of the equilibrium models to determine the price of an asset that based on market equilibrium conditions (Husnan, 1996: 165). In the equilibrium conditions, the return required by the investor will be affected by the risk of these stocks. In this model, the risk is not defined as the standard deviation of return but measured by beta (β), This parameter is consistent with portfolio theory which says that if investors doing diversification well, then measuring risk is the risk contribution of additional stocks to the portfolio. CAPM formulation is measuring the minimum expected return by the following formula:
\[ ER_j = Rf + (Rm - Rf) \beta_j \]

Where:
- \( ER_j \) = Expected return from \( j \)-stock
- \( Rf \) = risk-free asset return
- \( Rm \) = market return
- \( \beta_j \) = Beta of \( j \)-stock

**RESULTS AND DISCUSSIONS**


**Risk and Return**

In the period of five years from April 2011 to April 2016 the average risk-free rate \( (Rf) \) from certificates of BI amounted to 0.06113 or 6.11\%, and the return of JCI \( (Rm) \) amounted to 0.26104 or 26.10\%. Both of these \( (Rf \) and \( Rm \)) is used as a fixed reference in the calculation of the expected returns using CAPM method in one period.

All of the stocks companies in this study have a positive beta value, it means that all of those stocks trends move in line with Jakarta Composite Index (JCI) as the main market index. The stock with a beta higher than one usually moves faster than the movement of the market index, these stocks known as an aggressive stock. Otherwise, the stock with a beta lower than one generally moves slower than the main market index movement, these
stocks also known as defensive stock. From the table above, only MYOR stock that has beta higher than one with the beta value up to 1.30, this mean only MYOR classified to aggressive stock. While nine other stocks beta is less than one and classified to defensive stock.

Table 1

<table>
<thead>
<tr>
<th>Companies</th>
<th>Sector</th>
<th>Beta</th>
<th>Rf</th>
<th>Rm</th>
<th>R</th>
<th>Er</th>
</tr>
</thead>
<tbody>
<tr>
<td>AALI</td>
<td>On-farm</td>
<td>0.0781016</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>-0.0444584</td>
<td>0.07674547</td>
</tr>
<tr>
<td>LSIP</td>
<td>On-farm</td>
<td>0.36820918</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>-0.1017169</td>
<td>0.13474079</td>
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<tr>
<td>SGR</td>
<td>On-farm</td>
<td>0.83614805</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>-0.2591161</td>
<td>0.22828632</td>
</tr>
<tr>
<td>TBL</td>
<td>On-farm</td>
<td>0.71797626</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>0.41927584</td>
<td>0.20466263</td>
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<tr>
<td>BWP</td>
<td>On-farm</td>
<td>0.56240936</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>-0.6662258</td>
<td>0.1735633</td>
</tr>
<tr>
<td>GZC</td>
<td>On-farm</td>
<td>0.7500401</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>-0.7843795</td>
<td>0.2110725</td>
</tr>
<tr>
<td>ICBP</td>
<td>Off-farm</td>
<td>0.9379248</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>2.53531154</td>
<td>0.24863248</td>
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<tr>
<td>INDF</td>
<td>Off-farm</td>
<td>0.90698319</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>0.68749604</td>
<td>0.24244695</td>
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<tr>
<td>MYOR</td>
<td>Off-farm</td>
<td>1.30763425</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>2.39937639</td>
<td>0.32254099</td>
</tr>
<tr>
<td>UNV</td>
<td>Off-farm</td>
<td>0.25226756</td>
<td>0.0611322</td>
<td>0.26104192</td>
<td>2.54281615</td>
<td>0.11156294</td>
</tr>
</tbody>
</table>

Based on 10 selected companies, Astra Agro Lestari(AALI) stock has the lowest risk with the beta of 0.07810 means that the average change in JCI prices will be followed by changes of AALI 0.07810 times, so the investor expectation return is low in accordance with the risk just only 0.07674 (7.67%) in five-year period. But in fact after five year period, realized return (R) AALI is under investors expected return (Er) amounted -0.0444 or -4.44%. It means that based on the theory of CAPM, investors expect a return of at least 7.67% in five years in the stocks of PT. Astra Agro Lestari Tbk, but in fact AALI it gives a negative return amounted -4.44%.  

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The highest risk level stock in this period is Mayora Indah (MYOR) with amount beta of 1.30763, which make investor’s expected return also high, the amount of expected return that investor requires at 0.32254 or 32.25%, while realized return of MYOR stock is up to 2.39937 or 239.94% far above the investor minimum expected return. this mean that investors expect a minimum return of 32.25% over the five years of investment in MYOR stocks. but in fact, MYOR stock gives returns until 239.94% in five years.

Five year period, there were five stocks that made a positive return those are UNVR (beta 0,25 with return 254%), TBLA (beta 0,71 with return 41,92%), INDF (beta 0,90 with return 68,74%), ICBP (beta 0,93 with return 253%) and MYOR (beta 1,30 with return 239%). Unilever (UNVR) stock is the company stock with the highest return, total realized return of UNVR for 5 years amounted to 254.28%. It means an investor who bought UNVR stock in April 2011 will receive a return of 254.28% in April 2016 from the total deposited funds from equity. UNVR has a low-level risk with a small beta only of 0.25 (second lowest risk stock after AALI) and tends to be defensive as it moves almost in line with JCI, but it able to give a very high return well above the minimum investors expected return.

Then there are five other companies that give negative return during the five-year period, those are AALI (beta 0,07 with return -4,44%), LSIP (beta 0,36 with return -10,17%), BWPT (beta 0,56 with return -66,62%), GZCO (beta 0,75 with return -78,43%) and SGRO (beta 0,83 with return -25,91%). The companies are the on-farm palm oil sector that not able to determine the selling price of their product (CPO) to the buyer since CPO price is determined directly by the international commodities market. This condition makes those five companies highly dependent on CPO prices in the international market, a five-year data period shows that international CPO price has fallen about 37% in Rotterdam commodity market from 1,147.3 US$/MT in April 2011 to 718.5 US$/MT in April 2016. This is a
threat to the palm oil plantation industry because the selling price of their product also falls with the world CPO price. On-farm palm oil company stock has negative returns. Whereas, the risk that investors bone is bigger than the return they earn. The exception to TBLA stock which represents on-farm palm oil industry but can achieve a growth return of 41.93% or twice the expected return which amounted to 20.47%.

While the consumer goods industry companies such as UNVR, ICBP, INDF, and MYOR are not affected by the falling price of palm oil commodity even though those companies are using CPO to cultivate their product instead. This happens because the product of those company is not CPO but consumer goods that consumed by public or people directly, so those companies will be able to adapt to any kind of economic condition and their companies stock price will grow consistently because inflation in Indonesia increased from 3.79% in 2011 to 8.36% in 2014, by 2015 inflation had dropped to 3.35%, but the consumer goods industry remained stable and still making net profit, because the price of the company's products will rise with the rising national prices of goods (BPS - Statistics Indonesia, 2016).

**On-farm and Off-farm Oil Palm Companies Stocks Valuation**

Based on processed historical data since April 2011 to April 2016 there are 5 undervalued stock companies, the stocks in this category are UNVR, ICBP, MYOR, INDF, and TBLA. Those stock companies are located above the Security Market Line (SML) because their realized return (R) is higher than the expected returns (Er) which mean the risk that investor borne is relatively small compared with the return they got. While, there is 5 overvalued companies stock : AALI, LSIP, SGRO, BWPT, and GZCO. Those stock’s realized return are lower than the expected return, which means the risk that investor borne is relatively higher compared with the return they are got that their overvalued stock is located below SML.
UNVR, ICBP, MYOR, INDF, and TBLA are the profitable stocks located above SML, those companies can be chosen as an investment option. Four of those companies are consumer goods industry based or off-farm sector of agribusiness, only TBLA the company from on-farm plantations sector. Instead, the rest of stocks companies studied in this research (AALI, LSIP, SGRO, BWPT, and GZCO) are non-profitable stocks as an investment instrument. Those five companies are the companies that have a business line in the on-farm sector of palm oil plantation industry.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

There are 9 defensive companies stock with a beta lower than 1, those are PT. Astra Agro Lestari Tbk.(AALI), PT. Unilever Indonesia Tbk. (UNVR), PT. PP London Sumatra Indonesia Tbk. (LSIP), PT. Eagle High Plantations Tbk. (BWPT), PT. Tunas Baru Lampung Tbk. (TBLA), PT. Gozco Plantations Tbk. (GZCO), PT. Sampoerna Agro Tbk. (SGRO), PT. Indofood Sukses Makmur Tbk. (INDF), and PT. Indofood CBP Sukses Makmur Tbk. (ICBP). While, PT. Mayora Indah Tbk. (MYOR) is the only aggressive stock because a beta higher than 1.
PT. Unilever Indonesia Tbk. (UNVR), PT. Indofood CBP Sukses Makmur Tbk. (ICBP), PT. Mayora Indah Tbk. (MYOR), PT. Indofood Sukses Makmur Tbk. (INDF), and PT. Tunas Baru Lampung Tbk. (TBLA), are the undervalued stocks that give a positive return, these stocks can be chosen by investors as an investment option. Otherwise, PT. Astra Agro Lestari Tbk. (AALI), PT. PP London Sumatra Indonesia Tbk. (LSIP), PT. Sampoerna Agro Tbk. (SGRO), PT. Eagle High Plantations Tbk. (BWPT), and PT. Gozco Plantations Tbk. (GZCO) are the overvalued stocks that give a negative return and not feasible to be chosen as an investment instrument.

**Recommendations**
The results of this study of 10 stock companies shows UNVR, ICBP, MYOR, INDF and TBLA is a feasible stock to buy because it gives a realized return above the expected return, so for investors who want to start investing their money to stock market can consider those five stocks as a part of their portfolio, but UNVR is the most attractive stock among others because it has the smallest risk than other stocks but it has the highest return.

**REFERENCES**


