Effect of Profitability, Debt and Market Ratios on Stock Return of Non-Bank Kompas 100 Stock

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Abstract
There exist inconsistencies in which financial ratio predicts stock return. This research aims to find empirical evidence of predictive powers of several financial ratios (Return on Equity (ROE), Earnings per Share (EPS), Debt to Equity Ratio (DER), Dividend Yield (DY), and Price/Earnings Ratio (PER)) in predicting Stock Return. Samples used in this study are 8 non-bank companies that are listed in KOMPAS100 stock index from 2009-2020. Results of this study shows ROE and DY is able to predict Stock Return, while EPS, DER, and PER does not show significant predictive ability.

Keywords stock return, equity, earning per share, debt to equity ratio, dividend yield.

1. Pendahuluan
Stock Return is defined as return that is gained from investment activities in stock. Stock Return comes in two form, which are capital gain (an increase of stock price, providing profit upon selling the stocks) and cash dividend distribution. (GItman and Smart 2019). Stock Return is the aim of every investor (Emamgholipour, et al. 2013), but there exist uncertainty in choosing stocks that have the bigger chance of providing Stock Return.

Information Asymmetry. This uncertainty is caused by lack of information among the investors—investors don’t know exactly and truthfully how the company is being managed, what decisions are taken and underwhat considerations, what will be the effects of said decision, and many other information regarding the company (Tjungandi and Mulyana 2018). This information discrepancy between the company and the investors is known as information asymmetry. (Copeland et al. 2014).

Signalling Theory. Companies do not stand idly in regards of this information asymmetry. They try to send signals that tells how their condition is. This is called Signaling Theory. (Sugandi and Handoyo 2018) The signals that represent the company’s condition varies, some examples include dissemination of annual reports which shows the company’s activities and financial reports for acertain year. (Delvia and Alexander 2018), and distribution of cash dividend, which shows the company was able to generate enough revenue to cover its expenses, interest, and taxes, that it can give back to its shareholders (Tjungandi andMulyana 2018). This study will focus on those two kinds of signals.

Using the financial information and dividend payout information available in annual reports, researchers are able to derive financial ratios from such information. (Banerjee 2019). In a sense, financial ratios are summarized version of the information in financial reports (Bukit and Anggono 2013), from which investors can gain an insight to companies, which assists investors in choosing which companies to invest in (Aftab and Naseer 2016).
Financial ratios are also shown to be able to predict Stock Return—as in, companies that have a certain value in its financial ratios are more likely to generate profits for investors. (Kheradyar et al. 2011) More specifically, those ratios are grouped into four groups: activity ratios, profitability ratios, debt ratios, and market ratios. (Gltman and Smart 2019) This study focuses on three of those four categories: profitability ratios, debt ratios, and market ratios.

2. Tinjauan Literatur

Profitability Ratios and Stock Return. Profitability ratios show the company’s ability in generating profit. The higher this ratio, the higher the investor’s confidence of the company. Investors feel more secure with high-profitability companies as those companies are more likely to be able to pay its expenses and obligation, and perhaps distribute some dividend to shareholders. (Fahlevi and Marlinah 2018) From this logic, it can be expected that the higher the profitability of a company, the higher its stock return will be. Profitability ratios used in this study are Return on Equity, and Earnings per Share.

Return on Equity (ROE) gauges how efficient is the company in achieving profit using its own, un-borrowed, capital. Companies with higher ROE are seen as better. (Sihombing and Sinaga 2020) Some research in the past have found Return on Equity to be positive and significant in affecting Stock Return (Allozi and Obeidat 2016) (Sihombing and Sinaga 2020), while others found a negative relationship instead (Banerjee 2019) (Sugito et al. 2020). Some research also found a non-significant relationship instead (Aftab and Naseer 2016).

Earnings per Share (EPS) shows how much of company’s net income do each shareholder gets. Companies with strong profitability usually have higher EPS. (Emamgholipour, et al. 2013) High enough EPS can mean that companies are using its assets well in gaining profit. (Banerjee 2019) Prior studies suggest that EPS are significant in a positive way to stock return (Emamgholipour, et al. 2013) (Bukit and Anggono 2013), but some also found a negative-significant relationship (Allozi and Obeidat 2016). Many found EPS to be not significant in affecting stock return (Banerjee 2019) (Salamat and Mustafa 2016) (Lai and Cho 2016).

The hypothesis regarding profitability ratios are as follows:

H₁: Return on Equity significantly affects Stock Return
H₂: Earnings per Share significantly affects Stock Return

Debt Ratios and Stock Return. Debt ratios indicates how much the company is relying on debt for its activities. The larger the debt ratio, the higher a company’s dependence on borrowed money. This is seen as a double-edged blade, or a high-risk high-return scenario. Some investors see high debt ratio as a sign of growth potential, with the logic of borrowing money to fuel growth further, which in turn increases profitability. (Susanto 2013) Clearly, however, the more debt there are, the higher the risk of default, which is a condition in which a company fails to pay back its debt. Default can very well lead to bankruptcy. (Tjungandi and Mulyana 2018).

Debt ratio used in this study is Debt to Equity Ratio (DER), which shows the balance of debt financing and equity financing deployed by the company. The expected relationship with stock return would be a negative one, as company with lower debt has lower risk, making it more desirable for investors. This also makes sense as in companies with more debt, the first party to reap from companies’ profit would be the creditor—shareholders would be paid later and of course the part that shareholders get will be less. (Banerjee 2019). This notion is supported by several studies, such as (Hertina and Hidayat 2019) and (Utami et al. 2015) However, this relationship may also be positive, taking in note, the view of higher debt means expansion potential, providing even more stock return in the future.
Studies that show evidence of this would be (Dita and Murtaqi 2014). Prior studies that found the relationship to be not significant also exist, such as (Banerjee 2019) and (Allozi and Obeidat 2016).

Hypothesis for Debt to Equity ratio is:
H3: Debt to Equity Ratio significantly affects Stock Return

Market Ratios and Stock Return. Market ratios give an insight of how investors generally judge a company. Investors’ judgement moves stock prices, which in turn affect stock return. (Gitman and Smart 2019) Market ratios used in this study are Dividend Yield and Price/Earnings Ratio.

Dividend Yield shows the relationship between its dividend payout and its stock price. Higher Dividend Yield are seen as risky signals by some investors, as it seems the company is trying to put on a show for its shareholders and future investors, while low Dividend Yield are generally seen by investors as a sign of the company reinvesting its profit for future growth. (Banerjee 2019) (Khan, et al. 2012) A lot of studies found Dividend Yield to be a good predictor of Stock Return that shows a positive-significant relationship (Banerjee 2019) (Lai and Cho 2016) A study found the relationship to be negative and significant (Aftab and Naseer 2016).

Price/Earnings Ratio shows how desired the company’s earnings is in the eye of investors. If the Price/Earnings Ratio is high, the general view is that the company’s stocks are highly desired by the investors. (Emamgholipour, et al. 2013) Prior studies found the relationship between Price/Earnings Ratio and Stock Return to be mixed, some found no effect (Banerjee 2019), some found negative and significant effect (Emamgholipour, et al. 2013), while some found a positive-significant relationship (Utami et al, 2015).

Based on the description of Dividend Yield and Price/Earnings Ratio, it can be inferred that dividend yield is expected to have a negative relationship with Stock Return while Price/Earnings Ratio has a positive relationship with Stock Return.

Here are the hypotheses regarding market ratios:
H4: Dividend Yield significantly affects Stock Return
H5: Price/Earnings Ratio significantly affects Stock Return

3. Metode Penelitian

This research is a causality research. Data is sampled from non-bank company listed in KOMPAS100 stock index from 2009-2020. Here is the purposive sampling process:

Table 1. Sample Selection
Seminar Nasional
Forum Manajemen Indonesia
2023 Papua
Prosiding

<table>
<thead>
<tr>
<th>Criteria Description</th>
<th>Number of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies in KOMPAS100 stock index as of August 2020</td>
<td>100</td>
</tr>
<tr>
<td>Companies that was not listed in Indonesia Stock Exchange consistently from 2009-2020</td>
<td>(24)</td>
</tr>
<tr>
<td>Companies that was not consistently in the KOMPAS100 stock index from 2009-2020</td>
<td>(39)</td>
</tr>
<tr>
<td>Companies that did not pay dividend routinely from 2009-2020</td>
<td>(21)</td>
</tr>
<tr>
<td>Companies that does not report its financial reports in Rupiah</td>
<td>(2)</td>
</tr>
<tr>
<td>Companies that are banks</td>
<td>(4)</td>
</tr>
<tr>
<td>Companies that fulfill the sampling criteria</td>
<td>10</td>
</tr>
<tr>
<td>Companies that have outlier data</td>
<td>(2)</td>
</tr>
<tr>
<td>Companies sampled</td>
<td>8 companies</td>
</tr>
<tr>
<td>Research period</td>
<td>12 years</td>
</tr>
<tr>
<td>Amount of data sampled</td>
<td>96</td>
</tr>
</tbody>
</table>

Table 2. Sample Description

<table>
<thead>
<tr>
<th>No.</th>
<th>Company Name</th>
<th>Stock Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AKR Corporindo Tbk.</td>
<td>AKRA</td>
</tr>
<tr>
<td>2</td>
<td>Astra International Tbk.</td>
<td>ASII</td>
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<tr>
<td>3</td>
<td>Charoen Pokphand Indonesia Tbk</td>
<td>CPIN</td>
</tr>
<tr>
<td>4</td>
<td>Indocement Tunggal Prakarsa Tbk.</td>
<td>INTP</td>
</tr>
<tr>
<td>5</td>
<td>Kalbe Farma Tbk.</td>
<td>KLBF</td>
</tr>
<tr>
<td>6</td>
<td>PP London Sumatra Indonesia Tbk.</td>
<td>LSIP</td>
</tr>
<tr>
<td>7</td>
<td>Semen Indonesia Group Tbk.</td>
<td>SMGR</td>
</tr>
<tr>
<td>8</td>
<td>United Tractors Tbk.</td>
<td>UNTR</td>
</tr>
</tbody>
</table>

Stock Return is the dependent variable of this research. Stock return is calculated by dividing the cash income obtained in that year (whether it’s in form of price increase or cash dividend) by the price of stock at the beginning of period. (Titman et al. 2018, 227).

4. Hasil dan Pembahasan

Data Analysis. Upon analyzing data of each variables, data was found to have normality and heteroscedasticity problem, even after removal of outlier. To remedy this, log transformation of the data was done, as advised by (Gujarati 2011). Only dependent variable data is transformed, as noted by Hair et al. (2019): to solve heteroscedasticity problem, transform only the dependent variable. After transformation, data is no longer found to be heteroscedastic and is normally distributed.

Table 3 Descriptive Statistics
lnSR | N | Mean | Max | Min | Std. Dev |
---|---|-----|-----|-----|---------|
-1.6540007 | 96 | 1.860243 | -6.072472 | 1.364079 |
ROE | 96 | 0.1797 | 0.6389556 | 0.029726 | 0.098596 |
EPS | 96 | 661.5619 | 5206.312 | 37.04272 | 852.8093 |
DER | 96 | 0.583792 | 1.80006 | 0.136492 | 0.414351 |
DY | 96 | 0.03823 | 0.435556 | 0.003361 | 0.062219 |
PER | 96 | 18.99216 | 59.26916 | 0.916502 | 10.47941 |

Source: data processing using EVIEWS 10 Log–natural (ln) of Stock Return has its mean at -1.6540007 with standard deviation of 1.364079. ln(Stock Return) shows value ranging from minimum value of -6.072472 to its maximum value of 1.860243. As it is difficult to understand the data in its log-transformed form, descriptive statistics of untransformed data will be provided. Samples’ seem to give the average (mean) Stock Return of 19.1283% and standard deviation value of 391.21%, showing a sign of highly variable return from samples across 2009-2020. Ample variability is also shown in its lowest and highest values—the lowest Stock Return being 0.2% and the highest Stock Return at 643%. Return on Equity’s average stands at 0.1797 or 17.97% which is considered to be at upper-middle range in Indonesian Stock Market (according to (NH Korindo 2021)) with standard deviation value being 0.098596. The highest value for Return on Equity is 0.6839556 (68.4%) and its lowest value is 0.029726. (2.9%) Earnings per Share of the 8 sampled companies stand on average at 661.5619 with standard deviation as big as 852.8093, meaning that companies in sample are able to generate, in average, Rp.661,56 of income for each share with deviation of Rp852,8093. Highest EPS stands at 5206.312 while the lowest in this study is 37.04272. Debt on Equity shows average of 0.583792. This means, on average, companies that are sampled depends more on equity than debt in their financing, almost doubly so. Standard deviation value shows 0.414351. The highest DER in this data is 1.80006, debt almost doubling equity, while it gets as low as 0.136492, where debt is almost 10 times lower than equity. Dividend Yield on average is 0.03823, showing average yield from dividend alone to be 3.823%, higher than Indonesia’s Stock Exchange average of 1.58% (according to (GuruFocus 2021)) Its standard deviation is 0.062219, and it can get as high as 0.43556, 43.5% yield, and it can get as low as 0.003361,a 0.3% return from dividend relative to market price. Price to Earnings ratio averages at 18.99216, hinting that investors are willing to pay, in average, about Rp19 for each unit of Earnings per Share of the company. Price to Earnings Ratio’s standard deviation stands at 10.47941, with PER getting as high as 59.26916 and as low as 0.91650

Table 3 – Result Goodness of Fit Test
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\[ \text{PER} \]

\begin{tabular}{|l|c|c|c|c|}
\hline
Variable & Coefficient & Std. Error & t-Statistics & Prob. \\
\hline
C & -2.77507 & 0.542498 & -5.115356 & 0.0007 \\
ROE & 5.132915 & 1.4605202 & 3.514487 & 0,8231 \\
EPS & 3.58E-05 & 0.00016 & 0.224201 & 0,7825 \\
DER & -0.082888 & 0.299332 & -0.276909 & 0,0126 \\
DY & 5.834873 & 2,292568 & 2.545126 & 0,9996 \\
PER & 7.33E-06 & 0,014768 & 0,000495 & 0,7825 \\
\hline
\end{tabular}

*t critical value (df=n-k-1=96-5-1=90; α=0, 05): 1.987 or -1.987

Return on Equity is found to have positive and significant relationship with StockReturn with its t-statistics, 3.514487, higher than t-critical value of 1.987 and p-value (0.0007) is smaller than α (0, 05). H1 is not rejected. This is in line with the described theory regarding profitability ratios, whereas increase of profitability shows higher ability of the company in managing costs and providing return for the shareholders. (Allozi and Obeidat 2016)

Earnings per Share with its t-statistics being 0.224201, is found to be insignificant in relationship with Stock Return as it does not pass t-critical value of 1.987. Its p-value (0.8231) is also higher than α (0, 05). H2 is rejected. According to Gitman and Smart (2019), EPS does not provide clear comparison between companies as each companies have different numbers of common shares outstanding. The implication of this is that companies who are more profitable may have lower EPS if it has a high number of common shares, while a less profitable company with way fewer common shares may have higher EPS. EPS, then, is more suitable to compare company’s profitability over time instead of comparing companies to each other.

Debt to Equity Ratio shows t-statistics of -0.276909 and p-value of 0.7825. Both signifies insignificant relationship of Debt to Equity Ratio towards Stock Return as its t-value fails to exceed critical value of 1.987 or -1.987 and its p-value is higher than α (0, 05). H1 is rejected. One explanation of this not-significant relationship would be the static trade-off theory, which states companies may still feel the benefit of tax shield more instead of financial distress at certain point of capital structure mix. (Muhammad and Ali 2018) This insignificant relationship seems to also be an incarnation of capital structure irrelevance theory, which states that the mix between debt and equity in company’s capital does not affect the company’s value. (Copeland et al. 2014)

Dividend Yield is significant to Stock Return and is so in a positive relationship, where Stock Return is predicted to raise along with an increase in Dividend Yield. This significant relationship is based on Dividend Yield’s t-statistics (2.545126) being higher than t-critical value of 1.987, and its p-value of 0.0126 being lower than α (0, 05). H2 is not rejected. Why is Dividend Yield positively significant towards Stock Return? A past study suggest simply because dividend is a part of numerator of the Stock Return formula, so higher Dividend Yield (which would mean higher dividend from the start) will mean higher Stock Return. (Emamgholipour, et al. 2013) Another
study suggest that by paying dividends to its shareholders, investors see it as a positive signal that companies cares for its shareholders and it gives a certain hope of gaining more dividend in the future. (Marito and Sjarif 2020).

Price/Earnings Ratio has t-statistics (0.000495) lower than 1.987 and p-value (0.9996) higher than α (0, 05). It can be concluded that Price/Earnings Ratio does not significantly affect Stock Return, H2 is rejected. PER may be not significant to Stock Return as it serves a different role. Price/Earnings Ratio is more entangled with its role as a perimeter of when to sell in trading. Price/Earnings Ratio also functions more as a reflection of investors’ expectations of the company (reflected through the stock price used in PER calculation) and nota reflection of company’s likelihood to generate stock return (Zanjirdar et al. 2010) (Glitman and Smart 2019).

5. Kesimpulan

Return on Equity is found to have a significant and positive effect on Stock Return. This result is in line with (Allozi and Obeidat 2016) and (Sihombing and Sinaga 2020), but not in line with (Banerjee 2019) who found a negative relationship instead, and (Aftab and Naseer 2016) where ROE is found to be not significant. Earnings per Share shows no significant relationship with Stock Return. This agrees with (Banerjee 2019), (Lai and Cho 2016), and (Salamat and Mustafa 2016), and disagrees with (Bukit and Anngono 2013) (Emamgholipour, et al. 2013) and (Allozi and Obeidat 2016). This study found Debt on Equity Ratio be statistically not significant to Stock Return. This result is consistent with (Banerjee 2019) and (Allozi and Obeidat 2016), and not consistent with (Hertina and Hidayat 2019) (Dita and Murtaqi 2014), and (Utami et al. 2015). Dividend Yield is found to be affecting Stock Return in a positive and significant way. This result is the same as (Banerjee 2019) and (Lai and Cho 2016) but different from (Aftab and Naseer 2016).

Price/Earnings Ratio is found to be not significant towards Stock Return, this result agrees with (Banerjee 2019) but not agreeing with (Emamgholipour, et al. 2013) and (Utami et al, 2015). The implication of this result is a sign for investors to look into Return on Equity ratio and Dividend Yield when looking for a prospective share to invest in. This study experiences limitation in sample size and period of study. Sample size can be bigger through selection of bigger population to pick samples from and perhaps a more lax criteria in purposive sampling, for example, selecting sample from the entirety of Indonesia Stock Exchange with no dividend-related explanatory variable so that purposive sampling criteria does not have to restrict companies that did not pay dividends every year from getting into the sample. This study is only conducted from 12 years, 2009-2020, while it can be much longer, such as 2005-2020 or 2000-2020. Future researchers are recommended to pick longer period of study. Another limitation is that there are only five explanatory variables studied, while there are many more that are claimed to have an effect on Stock Return. It is recommended to add more independent variables in studying Stock Return, such as Market to Book Ratio, Debt Ratio, Times Interest Earned Ratio, Earnings Yield, and many other.

Referensi


Seminar Nasional
Forum Manajemen Indonesia
2023 Papua
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Exchange." Journal of Social Sciences Vol. 5 No. 3 408-424.


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