

Financial Performance, Exchange Rate and Stock Return: Evidence from Manufacturing Sector

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Abstract *This study aims to find out and understand what variables influence stock returns on the Indonesia Stock Exchange. Stock return is the first and foremost consideration for investors in making investment decisions, besides fundamental factors and the business environment. The methodology uses financial data with a sample of manufacturing companies recorded in the period 2013-2018, on the Indonesia Stock Exchange. The analysis used multiple regression analysis and moderated regression analysis (MRA) for before and after mediating the IDR-USD exchange rate. The findings obtained are before being moderated, and after being mediated shows the liquidity (CR), efficiency (TATO), profitability (ROA and EPS), and solvency (DER) proxy, have a significant effect on stock returns, both before and after being mediated. Thus, it is evident that the exchange rate can influence financial performance factors, both partially and simultaneously. Managerial implications: capital market practitioners, especially investors/asset managers, can consider the variables and observe the movements of the IDR-USD exchange rate above as a component of investment decision making.*

Keywords: *Stock return, financial performance, liquidity, efficiency, profitability, solvency, exchange rate*

Abstrak *Studi ini bertujuan untuk mengetahui dan memahami variabel apa saja yang berpengaruh terhadap return saham di Bursa Efek Indonesia. Return saham merupakan pertimbangan pertama dan utama bagi investor dalam mengambil keputusan investasinya, di samping aspek fundamental dan lingkungan bisnis. Metodologi menggunakan data finansial dengan sampel perusahaan manufaktur sektor Barang Konsumsi yang tercatat pada periode 2013-2018, di Bursa Efek Indonesia. Analisis menggunakan regresi berganda dan moderated regression analysis (MRA) untuk sebelum dan sesudah termoderasi nilai tukar IDR-USD. Temuan yang didapat adalah sebelum termoderasi dan sesudah dimediasi menunjukkan proksi likuiditas (CR), efisiensi (TATO), profitabilitas (ROA dan EPS), dan solvabilitas (DER), berpengaruh signifikan terhadap return, baik sebelum maupun sesudah dimoderasi. Dengan demikian, terbukti bahwa nilai tukar mampu mempengaruhi faktor-faktor kinerja finansial, baik secara parsial maupun simultan. Implikasi manajerial: praktisi pasar modal terutama investor/manager aset dapat mempertimbangkan variabel-variabel serta mengamati pergerakan nilai tukar IDR-USD sebagai komponen pengambilan keputusan investasi.*

Kata kunci: Return, likuiditas, efisiensi aset, profitabilitas, solvabilitas, nilai tukar.

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Received: October 17th, 2019; Revision: January 1st, 2020; Accepted: January 2nd, 2020

Print ISSN: 1412-1700; Online ISSN: 2089-7928. DOI: <http://dx.doi.org/10.12695/jmt.2019.18.3.5>

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Introduction

The stock market has become an important market and plays a central role in economic prosperity that drives the capital formation and sustains economic growth. The stock market is essential for economic growth because it ensures the flow of sources of funds to productive investment opportunities (Wijaya & Kristian, 2017; Al-Tamimi, 2011). Stock prices change on the stock market every time and even tend to change more quickly and repeatedly in one day, especially for some blue-chip stocks that are very liquid. This fact means that stock prices are determined by the concept of supply-demand and market microstructure (Kasmiati & Santosa, 2019; Santosa, 2011). No system can easily estimate stock price movements precisely. However, the factors behind the movement of asset prices in the market include the company's financial performance, external factors, and market behavior-risk (Santosa & Puspitasari, 2019).

A large number of empirical studies have been conducted regarding the determinants of stock returns. This study deals with stock returns of manufacturing sector in Indonesia. Return is obtained from stock investment in the capital market, which is the primary expectation of investors. Return is a reward or premium for investors because they are willing to assume market risks (Santosa and Puspitasari, 2019). Investment in financial assets shows the expectation of return for investors because they have provided many funds at this time to obtain a flow of funds in the future as compensation for various factors such as time, risk and opportunity costs incurred (Bodie et al. 2014).

Capital gains and dividend yields cause increased returns that grow throughout the investment period. In this regard, several factors affect stock return, namely internal and external issuers. Internal factors are liquidity, efficiency, profitability, and solvency, which can be proxy through current ratio variables, total asset turnover, return on assets, earnings per share, and debt to equity ratio (Brigham & Houston, 2016).

External factors include macro-risk indicators, such as economic growth, exchange rates, inflation, government regulations, technology, social-political and natural conditions (Santosa & Puspitasari, 2019; Khan et al. 2012).

An internal view, such as the negative effect of liquidity on returns, according to Asmi (2014). For efficiency proxies, namely total asset turnover on stock returns, Zulkarnaen et al. (2016) concluded that efficiency has a positive effect on stock returns. This opinion is under Thirsye and Simu (2013), which shows that efficiency has a positive effect on stock returns. The results of previous studies regarding profitability variables, namely return on assets conducted by Astuty (2017) and Legiman (2015), stated that return on assets affects stock returns. Arista & Astohar (2012), and Asmi (2014) states that there is no effect of return on assets on stock returns. For earnings per share (EPS) proxy, Ganto et al. (2008) concluded that there was a positive correlation between earning per share with stock returns and Arista & Astohar (2012) showed that corporate profits could increase the price to book value which showed that stock prices and performance were getting better.

Macro-risk and global uncertainty create an unfamiliar environment as external factors for investors and may directly affect how investors react to corporate performance announcements (Epstein and Schneider, 2008). One of the most crucial macro indicators that influence is the exchange rate (IDR-USD) experiencing appreciation or depreciation due to supply-demand mechanisms in the market, and its fluctuations directly big affect on the capital market because of global trade, FDI, market investment, and debt/bonds using USD. Thus the exchange rate as a macro-risk proxy has a major influence on asset price fluctuations in the market (Santosa & Santoso, 2019; Singh et al., 2014). Sutriani (2014) states that the exchange rate can mediate the return on assets and the debt to equity ratio of stock returns. These findings are supported by the opinion of Singh et al. (2014), Khan et al. (2012), and Nikkinen (2008), which

explain the exchange rate of important macroeconomy variables that have a significant effect on stock returns. From the empirical facts above, a mediating variable between fundamental factors and stock returns uses the exchange rate affects stock returns.

Based on the explanation of the phenomenon above, this study focuses on the effect of factors of financial performance on stock returns of manufacturing companies in the Consumer Goods Industry sector before and after being mediated by the exchange rate of IDR-USD, as a macro-risk shock on investor responses. Moreover, Santosa & Santoso (2019) find that along March 2018-March 2019, where the ER has hugely fluctuated cause the JCI fell 12,9 percent. Throughout the period, the ER plays a crucial role in influence the risk and stock return significantly at IDX. The novelty of this study is to combine macro-risk factors as mediating to understand the effect of strengthening or weakening the effect of each independent variable, especially financial performances on stock return.

Literature and Research Hypotheses

Liquidity effect on stock return

Liquidity affects stock returns, which, the higher the liquidity of the firms, causes a decrease in operating risk and lower the stock returns. With decreasing risk, stock returns also decrease as a consequence of a trade-off between risk and stock returns (Brigham & Houston, 2016; Van Horne & Wachowics, 2013; Santosa & Puspitasari, 2019). The increase in liquidity can be caused by an increase in the company's current assets and working capital, which indicates that management is unable to utilize liquidity to expand the company's business. Moreover, if high receivables and inventory that indicate the firms have severe problems in business cause the high current assets, that it affects revenue and profitability negatively (Asmi, 2014; Santosa, 2010). Besides, Sugiarti et al. (2014) find that liquidity affects stock returns negatively. Another study conducted by Nurunnisak et al. (2018) and Hidayah (2016),

which stated that the exchange rate mediated liquidity affected stock returns negatively.

H1a: Liquidity (CR) has a negative effect on stocks return.

H1b: Liquidity (CR) has a negative effect on stock return mediating by exchange rate

Efficiency effect on stock return

Theoretically, the high Total Asset Turnover (TATO) shows the quality of management in managing company assets to create revenue streams. Thus, the higher the TATO, the higher the efficiency and more revenue of the firm whom investors considered (Brealey et al. 2012; Brigham & Houston, 2016). While empirically Lulukiyyah (2011), Zulkarnaen et al. (2016) and Laksono (2017) found that the TATO proxy had a positive effect on stock returns. Efficiency is essential for investors because it involves revenue creation and proper utilization of assets that have the potential to increase company profits. Study of Nurunnisak et al. (2018) and Hidayah (2016) state that the exchange rate against company value mediates efficiency and activity. The findings and opinions are following financial theory are relevant to the hypothesis:

H2a: Efficiency (TATO) has a positive effect on stock return.

H2b: Efficiency (TATO) has a positive effect on stock return mediating by exchange rate.

Profitability effect on stock return

Subrahmanyam (2014) and Brown & Reiley (2012) argue that profitability is one of the crucial variables considered by equity investors. Equity investors make profitability a key indicator because they are long-term oriented in their investments, whereas Santosa (2010) argues that profitability as a signal of guaranteed dividend yield as a component of return besides capital gains. Empirically, Kasmiati & Santosa (2019), Sutriani (2014) and Zulkarnaen et al. (2016) argues that profitability has a positive effect on stock returns. Positive results indicate that the company's performance is getting better and more efficient in utilizing its assets to obtain high profits. High profits cause demand for shares to increase so that stock prices rise,

which results in returns obtained by investors also increase (Laksono, 2017). Also, Hidayah (2016) and Nurunnisak et al. (2018) found that exchange rate mediated profitability and affects stock return.

H3a: Profitability (ROA) has a positive effect on stock return.

H3a: Profitability (ROA) has positive effect on stock return mediated by the exchange rate.

Earnings information that is most relevant to market information is earnings per share (EPS), which is directly related to earnings per share (Kasmiati & Santosa, 2019; Brown & Reiley, 2012). EPS is essential information for market ratio analysis, such as dividend payout ratio (DPR) and price earning ratio (PER). The higher EPS will promise higher returns (Brigham & Houston, 2016; Van Horne & Wachowics, 2012). This hypothesis is also following the results of Kasmiati & Santosa (2019), Astuty (2017), and Al-Tamimi (2011) which concludes that the higher EPS value makes investors more interested in these shares because the portion of profits provided as dividends for shareholders is getting bigger, thus the stock return also increased and wealthy investors are also getting more significant.

H4a: Profitability (EPS) has a positive effect on stock returns.

H4b: Profitability (EPS) has positive effect on stock return mediated by the exchange rate.

Solvency effect on stock return

Solvency plays a central role in corporate finance, which illustrates the company's capital structure, which reflects the company's ability to meet its long-term obligations (Brigham & Houston, 2016). If the DER ratio increases, the firm's value increases linearly due to the present value of cash flow generated from the tax shield to a specific optimal point of DER (Santosa, 2010; Wijaya and Kristian, 2017; Subrahmanyam, 2014). However, if management increases debt to exceed the optimal or target DER ratio, the company value will decrease in line with increasing leverage. Even in some cases, this causes financial distress and bankruptcy cost.

Empirically, Asmi (2016), Hidayah (2016), and Sutriani (2014) found that DER had a positive effect on returns, however Kasmiati & Santosa (2019), Laksono (2017) and Hermawan (2012) concluded that leverage effect on stock returns negatively. Other findings, Hidayah (2016) and Nurunnisak et al. (2018) state that solvency affects the return after being mediated by the exchange rate. Then the proper hypothesis:

H5a: Leverage (DER) has a positive/negative effect on stock return.

H5b: Leverage (DER) has positive/negative effect on return mediating by exchange rate.

Mediation (Exchange Rate)

The importance of the exchange rate in manufacturing business activities is related to export and import activities. The manufacturing sector requires imports of raw materials so that the exchange rate will affect the price of raw materials. In this study, the exchange rate used is the exchange rate between the dollar (USD) to the rupiah (IDR). If the value of the dollar goes up, more USD is paid by the importer to get production materials and raw materials. A stronger USD also causes investors to withdraw their funds in shares and are more interested in investing in USD compared to stocks. This depreciation of IDR certainly causes the stock price to fall. Murtianingsih (2014), Aroni & Thobarry (2009) concluded that the exchange rate (ER) effect on stock returns negatively.

Data and Methodology

Model 1: Before mediating

The population of this study is all manufacturing sector companies listed on the Indonesia Stock Exchange (IDX). Criteria for companies in the manufacturing sector as research objects with some reasons (Asmi, 2016; Hidayah, 2016; Laksono, 2017; and Hermawan, 2012): (1) Manufacturing companies have a high sensitivity and influence on the community and the surrounding environment; (2) For equality in financial statements because each financial statement or account classification in each sector there is a different presentation. (3) There are differences in disclosure items in each sector (Purnamawati et al. 2017).

The companies as samples in this study were selected based on some criteria (purposive sampling), namely: (1) Firms registered in the manufacturing sector. (2) The company's annual report available on the website company. (3) The company has institutional and managerial ownership (GCG view). (4) Sample companies reveal CSR; (5) The sample company has all the required data in full (Laksono, 2017; Zulkarnaen et al. 2016; Hermawan, 2012). The research observation period was conducted from 2013 to 2018 annually. The analysis used in this study to test hypotheses is the Multiple Regression Model (in data panel; annually). With this model, it is known how much the independent variable influences the dependent variable with the regression equation as follows (Kasmiati & Santosa, 2019; Asmi, 2014; Sugiarti et al. 2014; Nurunnisak et al. 2018):

$$Return_{i,t} = \alpha_{i,t} + \alpha_1 CR_{i,t} + \alpha_2 TATO_{i,t} + \alpha_3 ROA_{i,t} + \alpha_4 EPS_{i,t} + \alpha_5 DER_{i,t} + \varepsilon_{i,t} \quad (1)$$

where:

Return : Stock Return

CR : Liquidity

TATO : Efficiency

ROA : Profitability (proxy 1)

EPS : Profitability (proxy 2)

DER : Leverage

ε : error term

Model 2: After mediating

Besides, this study also uses Mediating Regression Analysis (MRA) in the data panel, annually. This method of analysis for finding the influence of independent variables on the dependent variable. Also, to see the effect of the mediation in the model. The mediating variable of the exchange rate does increase the effect of the independent variable on stock returns or vice versa. In this study the moderation regression model or the interaction test of the equation is written as follows (Kasmiati & Santosa, 2019; Hidayah, 2017; Murtianingsih, 2014), Aroni and Thobarry, 2009):

$$Return_{i,t} = \beta_{i,t} + \beta_1 ER_t \cdot CR_t + \beta_2 ER_t \cdot TATO_{i,t} + \beta_3 ER_t \cdot ROA_{i,t} + \beta_4 ER_t \cdot EPS_{i,t} + \beta_5 ER_t \cdot DER_{i,t} + \varepsilon_{i,t} \quad (2)$$

where ER (exchange rate) is moderated variabel IDR-USD

Empirical Results and Discussion

Descriptive Analysis

In this study, the independent variables used Current Ratio (CR), Total Assets Turnover (TATO), Return on Assets (ROA), Earning per Share (EPS), and Debt to Equity Ratio (DER), while the dependent variable is Stock Return. Following are the results of the descriptive analysis of research variable data for Model 1:

Table 1.
Variables Description

Variable Name	Variable Description
Return	Capital gain/loss of firm -i in period t
Liquidity	Currentt asset: Current asset over current liabilities of firm - i in period t
Efficiency	Revenue over total assets of firm i in period t
Profitability	Return to total assets: Earnings before interest, taxes, and depreciation (EBIT) over book value of total assets and Earning pershare (EPS): Net income over outstanding (of firm -i in period t)
Leverage	Total debt over equity of firm i in period t.
Exchange ra te	IDR -USD exchange rate in period t

Table 2.
Descriptive analysis of Model 1

Variable	Minimum	Maximum	Mean	Std. Deviation
CR	-.69	2.09	.6948	.5690 8
TATO	-1.45	1.17	.1477	.46312
ROA	-6.87	-.43	-2.7865	1.13235
EPS	-38760.47	55589.52	744.3617	6961.38342
DER	-1.65	4.28	-.1655	.87503
Return	-2.08	-.82	-1.5486	.25241

Table 2 above shows the descriptive statistics of Model 1 (minimum value, maximum value, mean, and standard deviation) of the research data. The data used is pooling/cross-section data and time series. The research period is from 2013 to 2018, with one-year intervals. Table 2 shows that the variable that has the most significant standard deviation is Earnings per Share. The deviation influence differences in the size of the company and the length of time the company is operating.

Also, a significant standard deviation shows the big difference between the maximum value and minimum value. The smallest standard deviation is the TATO variable because the data is relatively similar every year.

As for the Model 2, descriptive analysis which is moderated by the IDR-USD (ER) exchange rate, shown in Table 3 below:

Table 3.
Descriptive analysis of Model 2

Variable	Minimum	Maximum	Mean	Std. Deviation
CR. ER	3.58	6.29	4.8357	.575 75
TATO. ER	2.55	5.36	4.2777	.47549
ROA. ER	-2.67	3.70	1.3454	1.1326 2
EPS. ER	-2670332.59	3390838.60	43734.3398	437374.44622
DER. ER	2.33	8.38	3.956 6	.90187
Return	-2.15	-.90	-1.5296	.2463 4

Descriptive statistics of Model 2 shows such as minimum value, maximum value, mean, and standard deviation. The data used is pooling/cross-section data and time series. After mediated by ER, the detailed results in Table 2 show that the variable that has the most prominent standard deviation is Earnings per Share. Besides, a standard deviation shows the difference between the maximum value and minimum value. The smallest standard deviation is the TATO variable because the data is distributed evenly in magnitude or relatively the same each year.

Classical Assumption Testing

In the classical assumption, testing conducted a standardized test are namely the normality test, the multicollinearity test, the autocorrelation test, and the heteroskedasticity test.

Normality test

Testing to see residual normality is by testing through the Kolmogorov-Smirnov test. Obtained the value of the Kolmogorov-Smirnov statistical test is 0.068 and significant at 0.479 and above 0.05. This result means that the residual data is normally distributed, and the results are consistent with histogram graphs that are close to the previous normal distribution.

Table 4.
Multicollinearity Test Results

Variable	Tolerance	VIF
CR	.625	1.600
TATO	.727	1.375
ROA	.731	1.367
EPS	.626	1.597
DER	.959	1.042

Multicollinearity Test

Multicollinearity test intends to find whether the regression model is disturbed by the correlation between independent variables in a linear relation. If the independent variables correlate with each other, then these variables are not orthogonal. A multicollinearity test does by looking at the Tolerance Value and Variance Inflation Factor (VIF). The limit of Tolerance Value is 0.10, and the VIF limit is 10. Tolerance Value if below 0.10 or VIF value above 10 occurs multicollinearity (Santosa & Hidayat, 2014).

The test results show the Tolerance value that there is no independent variable that has a tolerance value of less than 0.10, which means there is no correlation between the independent variables whose value is higher than 95%. The results of the calculation of the Variance Inflation Factor (VIF) value also showed the same thing, and there were no independent variables that recorded a VIF value higher than 10%. So it can be concluded that there is no multicollinearity between the independent variables in the regression model.

Autocorrelation Test

The assumption of autocorrelation means that previous data influence the emergence of data. In the test for autocorrelation, a Run test result showed that Asymp. Sig. (2-tailed) 0.136 is more than 0.05 which means that the residual is random or there is no autocorrelation between residual values (Gujarati & Porter, 2010)

Heteroscedasticity Test

The Heteroscedasticity Test intends to assess whether, in the regression model, there is an unequal variance from the residuals of one observation to another. Regression models as good as those that do not occur Heteroscedasticity (Santosa & Hidayat, 2014). Heteroscedasticity symptoms testing shows in a below Scatterplot chart.

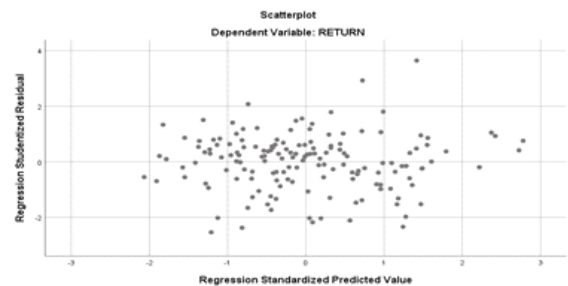


Figure 1.
Scatter Plot Heteroscedasticity

Based on Figure 1, visible points spread randomly and do not form a specific pattern, both above and below the zero on the Y-axis. The results of this test concluded that there is no heteroscedasticity in the regression model so that the regression model is feasible to use

Model 1 and Model 2 Regression Analysis

Model 1 results

The results of the hypothesis testing of Model 1 in Table 5, where the model before the IDR-USD exchange rate interpretation proved that all the effects of the independent variables and constants on stock returns are significant, where all p-values < 0.05 ($\alpha = 5\%$).

Table 5.
Multiple Regression Results of Model 1

Variable	Coefficient	t	p (sig)	Result
(Constant)	-1.626	-103.952	.0204	Significant
Liquidity (CR)	-.187	-13.215	.0120	Significant
Efficiency (TATO)	.403	31.950	.0220	Significant
Profitability (ROA)	.167	23.526	.0176	Significant
Profitability (EPS)	.00117	14.944	.0280	Significant
Leverage (DER)	.147	15.674	.0128	Significant

Significant at $\alpha=5\%$

Table 6.
ER Mediating Regression Results of Model 2

Variable	Coefficient	t	p (sig)	Result
(Constant)	-2.371	-26.909	.0121	Significant
Liquidity (CR) -ER	-.163	-16.715	.0438	Significant
Efficiency (TATO) -ER	.348	30.657	.0206	Significant
Profitability (ROA) -ER	.155	24.265	.0310	Significant
Profitability (EPS) -ER	.108	15.770	.0308	Significant
Leverage (DER) -ER	.0001695	14.985	.0185	Significant

Significant at $\alpha=5\%$

Thus, the constant value of Model 1 (regression before being moderated) shows the value -1.626, which shows that without the influence of other independent variables, the return is -1.626. CR's negative and significant effect on stock returns with a coefficient of -0.187, which shows that every increase of one unit of CR will reduce 0.187 stock returns. Then, the TATO variable has a positive and significant effect on stock returns with a coefficient of 0.403, which means that each increase of one unit of TATO will increase 0.403 returns, and ROA has a positive and significant effect on stock returns. While EPS has a positive effect and significantly on stock returns by the hypothesis with a small coefficient, 0.00117. The leverage variable (DER) has a positive and significant effect on stock returns, indicating the addition of one DER unit increases 0.147 stock returns. All findings are under the hypothesis.

Model 2 results

The hypothesis test results of Model 2 in Table 6, where the model after IDR-USD exchange rate interpretation proven that all the effects of independent variables and constants on stock returns are significant, where all p-values <0.05 ($\alpha = 5\%$).

The constant value of Model 2 (regression after being moderated) shows the value of -2,371, which is interpreted without the influence of all the other independent variables, the return is -2.371. Liquidity (CR) has a negative and significant effect on stock returns with a coefficient of -0.163, which shows that every increase of one unit of CR will reduce 0.163 stock returns. Furthermore, efficiency (TATO) has a positive and significant effect on stock returns with a coefficient of 0.348, which means that each increase of one unit of TATO will increase 0.348 returns and ROA has a positive effect with a coefficient of 0.155 and is significant on stock returns after being moderated by the exchange rate.

While EPS has a positive and significant effect on stock returns following the hypothesis with a strong coefficient of 0.108. The leverage variable (DER) has a positive and significant effect on stock returns moderated by the exchange rate with a relatively small coefficient, 0.0001695. These findings are in-line with the hypothesis.

Simultaneous test results for Model 1 and Model 2

The F-statistic value of Model 1 shows that 366.924 is significant, with a value of $0.000 < \alpha$ (5%). This finding means that all independent variables, including CR, TATO, ROA, EPS, and DER, are significant explanations of the stock return variable. Therefore, it can be concluded that the regression model can be used to predict stock returns. The F-statistic test of Model 2: 353889 is significant, with a value of 0.000 ($\alpha=5\%$). This result shows that all independent variables that have been moderated by the exchange rate are a significant explanation of stock returns. Then it can be concluded that the regression model can be used to predict stock returns.

Coefficient Determination R^2 Model 1 and Model 2

The coefficient of determination (R^2) shows how much the independent variables can explain the dependent movement of the stock return variable. The higher the means, the better the independent variable contributes to the effect on stock returns. The results of R^2 for both models are:

Table 6.

Determination of Model 1 and Model 2

Model	R	R^2	Adjusted \bar{R}
1	.665 ^a	.642	.638
2	.698 ^a	.696	.686

R^2 Model 1 noted at 64.2%, which explains that the magnitude of the influence exerted by the CR, TATO, ROA, EPS, and DER variables on stock returns was 64.2% while the remaining 35.8% was influenced by other factors not examined in this research. This finding classified as very good. Furthermore, for R^2 , after a mediated exchange rate (ER) obtained 69.6%.

Thus the magnitude of influence exerted by the variables CR, TATO, ROA, DER, and EPS on stock returns after moderating the exchange rate increased to 69.6%, while the remaining 21.4% was influenced by other factors that did not make the independent variable. Thus R^2 Model 2 is better than Model 1, which shows that the ER moderation variable reinforces the influence of the independent variable.

Discussion

Liquidity and stock return

Model 1 regression results show that liquidity with the current ratio (CR) proxy has a significant negative effect on stock returns. These findings are in-line with the opinions of Van Horne & Wachowics (2012) and Brigham & Houston (2016). High liquidity causes the operating risk to decrease and reduces business expansion, thereby reducing revenue and profit potential. With the company's revenue and profitability decreasing, causing dividends also to decrease. This condition positively affects the stock price in the market, which causes a decreased return of Asmi (2014), Nurunnisak et al. (2018), and Hidayah (2016). However, these findings contradict research conducted by Ganesh (2012) and Sabalno (2010), showing that CR has a positive effect on stock returns because of positive investor sentiment towards issuers that give positive signals to dividend payments. After being moderated by ER, the effect of CR on stock returns is getting weaker because the effect of the ER as a macro-risk is stronger than liquidity.

Efficiency and stock return

The analysis showed that TATO showed a significant positive effect on stock returns, both before or after being moderated by the exchange rate. These findings are in-line with the research hypothesis, where theoretically, the higher TATO shows a better quality of management in managing company assets to create revenue streams. Thus, the higher TATO causes a higher revenue and efficiency of the company, which makes investors more interested in these shares (Brealey et al. 2012; Brigham & Houston, 2016).

This finding is in line with the opinion of Lulukiyyah (2011), Zulkarnaen et al. (2016), and Laksono (2017), who concluded that efficiency proxies have a positive effect on stock returns. The study of Nurunnisak et al. (2018), and Hidayah (2016) stated that efficiency and activity moderated by the exchange rate to the value of the company are also by the findings of this study.

Profitability and stock return

Regression results show that ROA and EPS have a positive effect on stock returns and are significant. The results of the study are under the research of Kasmiasi & Santosa (2019), Astuty (2017) and Yusi (2011), which states that earning information (profitability) has a positive effect on stock return. Increased profitability, especially in the long run, is a significant consideration for equity investors because investments become more sustainable than less profitable firms, and dividend payments become secure. With the increase in profitability, the stock becomes a storing value that causes investors to be more interested in investing. Also, the increase in profits makes dividend payments to shareholders naturally increase. These various reasons make stock prices continue to rise and increase stock returns (Thrisye and Simu, 2013). This argument indicates the importance of ROE and EPS for shareholders who expect capital gains and dividend yields in a positive trend (Santosa, 2010; Hidayah, 2017). ER moderation weakens the effect of ROA but strengthens EPS on stock returns.

Effect of Leverage on stock returns

Solvency or leverage (DER) of the company shows a positive and significant effect on stock returns, both before and after moderated exchange rates. Solvency is an essential indicator of corporate finance that illustrates the company's capital structure. The leverage ratio reflects the company's ability to meet its long-term obligations (Brigham & Houston, 2016). If DER increases, the firm's value increases linearly due to the additional present value of cash flow from the tax shield to a certain optimal point (Van Horne & Wachowics, 2014).

However, if the DER exceeds four times, then the value of the company decreases with increasing leverage. Even in some cases, this causes financial distress and bankruptcy. Empirically, Wijaya & Kristian (2017), Asmi (2016), Hidayah (2016), and Sutriani (2014) found that DER had a positive effect on returns, but Laksono (2017) and Hermawan stated that leverage had an inverse effect on returns. Other findings, Hidayah (2016) and Nurunnisak et al. (2018) state that solvency affects the return after being moderated by the exchange rate. The existence of conflicting findings is reasonable because it depends on the issuer DER is before or after the optimal point.

The Role of Exchange rate mediating

Exchange rates have a substantial effect as a moderating variable in this study. The fluctuation of the value of IDR on the USD generally affects the performance of the capital market due to the intensity of issuers who use the USD in their business operations is quite high. In the consumer goods manufacturing sector, the use of imported raw materials is still high so that any increase in the value of the USD will significantly pressure the issuer's business. As a moderating variable for internal factors, the exchange rate proven to be significant both partially and simultaneously. These results are following the conclusions of Hidayah (2016) and Nurunnisak et al. (2018). Another opinion, the decline in IDR indicates that the trade balance is negative where there is a decline in exports. If the IDR depreciates, it indicates that the Indonesian economy is deteriorating, and vice versa, which affects stock returns. In line with this prediction, Williams (2015) and Bird and Yeung (2012) conclude that investors respond asymmetrically and place more weight on negative financial performance news than on positive earning news following an increase in macro-risk.

Conclusion

Based on in-depth discussion concluded that all hypotheses had proven significantly — results both before and after being mediated by the exchange rate. Liquidity proxy (CR) shows a negative and significant effect both before and after being mediating. Increased liquidity causes a decrease in stock returns because management is unable to utilize liquidity to support business operations efficiently and effectively. Then the efficiency proxy (TATO) shows the results according to the hypothesis is a positive effect of efficiency on stock returns both before and after being moderated. This finding is consistent with the hypothesis because the efficiency of assets assessed by investors has the potential to increase corporate earnings and profits.

Related to profitability, which plays the most crucial role for equity investors, it shows results that match the hypothesis, namely the positive influence of profitability proxies (ROA and EPS) on stock returns, both before and after being moderated. Increased profitability is the main attraction for investors to buy shares because profitability is a guarantee of the issuer's business sustainability. Next, the conclude of leverage states had a positive effect on returns, both before and after being moderated. This shows that increasing DER has the potential to increase firm value. In other words, the proportion of the issuer's leverage is still below the optimal point. The company can still increase its debt portion to support continued investment and business expansion.

The exchange rate was proven to have a significant effect as a moderating variable and a simultaneous variable in this study. In this study of the consumer goods manufacturing sector, the use of imported raw materials is still high so that any increase in the value of the USD will significantly pressure the issuer's business. Besides, the increase in the value of the USD has prompted foreign investors to make capital outflows, which have caused a collapse in prices and stock returns.

Another thing, fluctuation in IDR value, shows the condition of the national economy, especially the trade balance. Investor tends to overreaction to respond macro-risk (uncertainty) such as exchange rate which weakens the effect of financial performance on stock return. Managerial implications: capital market practitioners, especially investors/shareholders/asset managers can consider the variables and concern the movements of the IDR-USD exchange rate especially caused by the The Fed policy as a crucial component of investment decision making.

Limitations and avenue for future research

There are two limitations in this study, namely (1) the purposive sampling method used in this method can hinder broader research findings, and (2) Sampling for research is extended to several sectors or LQ45 indexes, Kompas 100 and Kehati on the Indonesia Stock Exchange (IDX). Besides, it should also consider the use of quarterly periods in order to obtain more representative findings.

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