

Proceeding

THE 4th INDONESIAN FINANCE ASSOCIATION INTERNATIONAL CONFERENCE 2018

Inspiring the Financial World from Indonesia



Proceeding
THE 4th INDONESIAN FINANCE ASSOCIATION
INTERNATIONAL CONFERENCE 2018

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PREFACE

We are very grateful to God for his grace that the 4th Indonesian Finance Association International Conference 2018 was held successfully on September 5-6, 2018 at Faculty of Economics and Business, Universitas Lampung. Tokens of appreciation should also be rendered to our co-hosts, sponsors, and you all that the event could be organized and carried out with utmost quality, comfort, and precision. These proceedings are compiled as a collection of all presenters' research papers, reflecting state-of- the-art ideas and findings on the field.

The theme of this conference is "Finance in the Age of Digital Technology: Pushing New Frontier," and this theme is manifested in the presented papers compiled in these proceedings, comprised of scholarly works from all over Indonesia as well as honorary speakers. Hence, we would like to express our gratitude and credits to:

Universitas Lampung, Universitas Gadjah Mada, Universitas Indonesia, Universitas Negeri Sebelas Maret, Universitas Bandar Lampung, IBI Darmajaya, Universitas Teknokrat Indonesia, Universitas Malahayati, STIE Umitra Lampung, STIE Gentiaras, STIE Prasetya Mandiri Lampung for hosting the conference and putting together materials for these proceedings.

Professor Alistair Milne (Looughborough University, UK), Professor Ghon Rhee (University of Hawai, USA and Pacific Basin Finance Journal), Professor Robin K. Chou (National Chengchi University Taiwan) for taking the time to contribute their expertise and experiences to the conference that have enriched our knowledge.

All scientists and researchers that have contributed their research ideas and results, and encouraged one another by sharing, learning, and discussion. There were 63 papers presented in the conference. Some of them have agreed to include their full papers in the proceedings.

The proceedings cover various topics, ranging from asset pricing to behavioral asset pricing, banking and financial intermediation, corporate governance, financial literacy, financial market behavior, market microstructure, and Islamic finance.

We sincerely hope that these proceedings, and the conference in particular, will benefit all the participants and readers, especially as a reference for further financial development in Indonesia and beyond.

We welcome any suggestions and constructive feedbacks to improve the organizing of the next IFA conferences and proceedings, and we look forward to seeing you again.

Bandar Lampung, September 2018

AND CHINA.

Amirul Mu'minin, Susi Sarumpaet, Dewi Sukmasari	722
THE COMPETITIVE BLINDSPOTS TO UNSECURED LENDING BUSINESS: CASE STUDY OF A FOREIGN BANK IN INDONESIA	741
Ratna Mutiarani, Alberto D. Hanani	741
THE EFFECT OF BANKING RISK IN INDONESIA REGIONAL DEVELOPMENT BANK	755
Joy Elly Tulung	755
THE EFFECT OF CHINESE AND INDIAN ECONOMIC GROWTH TO STOCK RETURN OF COAL COMPANY IN INDONESIA	773
Yanuar, Caroline	773
THE EFFECT OF CORPORATE SOCIAL PERFORMANCE AND FINANCIAL PERFORMANCE WITH CORPORATE SOCIAL RESPONSIBILITY (CSR) DISCLOSURE AS AN INTERVENING VARIABLE TOWARD FIRM VALUE	785
Fanisya Alya Puteri, Lindrianasari, Ninuk Dewi Kesumaningrum, Faricha	785
THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY ON FINANCIAL PERFORMANCE OF INDONESIA STOCK EXCHANGE'S LISTED COMPANIES INCLUDED IN LQ45	806
Muhammad Nicko Rahmadano, Herris B. Simandjuntak	806
THE EFFECT SELF CONTROL AND NON COGNITIVE FACTORS ON FINANCIAL BEHAVIOR AND FINANCIAL WELL BEING	824
Sarah Samaria Najoan	824
THE IMPACT OF DIVERSIFICATION OF SEGMENT ON BANK PERFORMANCE: THE MODERATING EFFECT OF COMPLEXITY ENVIRONMENT	841
Yuliani, Ima Andriyani	841
THE IMPACT OF GENDER DIVERSITY AND INDEPENDENT DIRECTOR ON BOARD OF DIRECTORS TO STOCK LIQUIDITY	859
Gama Yuki Amanda	859

THE EFFECT OF CHINESE AND INDIAN ECONOMIC TO STOCK RETURN OF COAL COMPANY IN INDONESIA

Yanuar⁹⁴ dan Caroline⁹⁵

ABSTRACT

This research aims to find out determine the effect of financial ratio, company size and GDP on the stock return of coal companies which are listed on the Indonesia Stock Exchange (BEI) for period 2008-2016. The research was designed as a descriptive study and verification by using secondary data. Data were analyzed using panel data regression. Independent variables that used in this research are profitability, liquidity, company size, company value, GDP China and GDP India. Based on the analysis of regression panel data, GDP China and GDP India have an impact to stock return. The result of this research are profitability and GDP India give positive significant to stock return. Company value, liquidity, and GDP China give negative significant to stock return as a novelty this research. Meanwhile, company value does not have significant to stock return.

Keywords: *profitability, liquidity, company size, company value, GDP, independent, stock return*

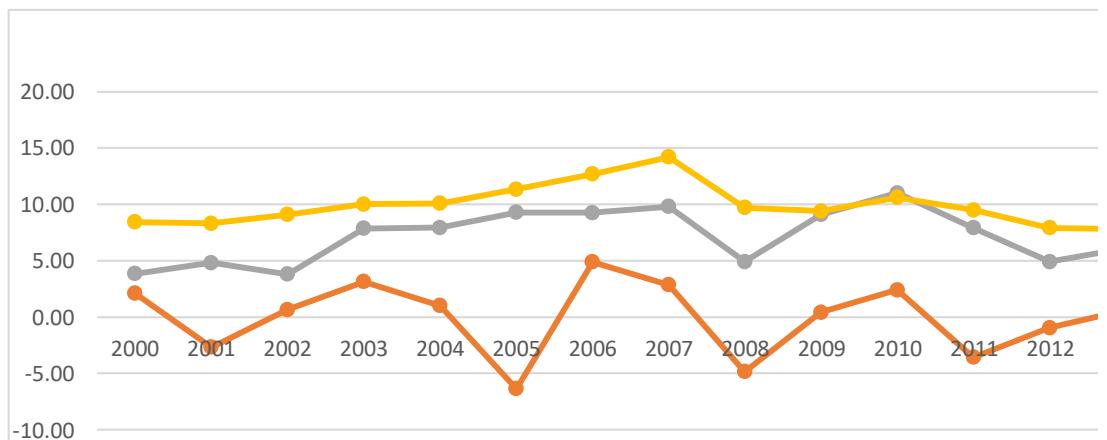
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I. INTRODUCTION

Capital markets have a big role in maintaining the viability of the company, especially for companies that require long-term capital to finance its operational assets. The purpose of companies that have entered the capital market, not only to maximize profits but improve the welfare of shareholders. Stock prices in the stock market always fluctuate depending on the strength of supply and demand from shareholders. For investors, stock prices become a picture to get a return on their investment. Investors can assess company performance through financial report data published annually. Company performance can be assessed using financial ratios. Investors often compare company size before investing. Companies with larger sizes are considered to be more promising for larger stock returns. In addition to corporate performance factors and firm size, stock returns are also influenced by macroeconomic factors, where the company has no control over these factors.

Coal is a source of energy that has been used since the first, but it is estimated that coal reserves owned by Indonesia can only survive for 83 years. Most of Indonesia's coal production is exported to India (21.8%), China (19.7%), Japan (12.69%), South Korea (10.92%), Taiwan (9.46%), and other countries. When national production increases (an increase in GDP / economic growth) in importing countries will increase the demand for energy consumption (coal). This will increase the demand for coal and will affect the selling price of Indonesian coal. The selling price will affect the sale and will eventually affect the stock price of the coal company. To do so, this study will take the macroeconomic factors of economic growth rate (GDP) of India and China as the two largest importing countries. The relationship between GDP and coal prices can be seen in Figure 1. In Figure 1 it can be seen that the movement of GDP from 2000-2014 is almost the same as the coal price movement. As GDP of importing countries (China and India) declines, coal prices tend to fall as well, and vice versa as importing country's GDP rises, coal prices tend to rise. This shows an increase in economic growth in China and India can increase the selling price of coal in Indonesia. The increase of coal price is expected to increase stock return.



Source: Asian Development Bank (2015) & Jakarta Stock Exchange (JSX)

Figure 1. The Relationship of GDP with Coal Price

II. LITERATURE REVIEW

1. Stock return

Stock return is the result obtained by investors from an investment in the capital market. Return of shares can be divided into two, according to Brigham et al.. (2007), namely:

- Realized Return is a return that has occurred and can be calculated based on historical data.
- Expected Return is the expected return in the future and is still predictive. Expected return is closely related to the risks faced. The higher the expected return, the greater the risk.

Returns accessed by investors can be divided into two, namely:

- Current Income is profit earned through dividend payout and periodic period.*
- Capital Gain / Loss (profit/loss) one that happens at a higher price.*

2. Financial Ratio

Financial ratio analysis is a commonly used analytical method in financial statement analysis. Financial ratio analysis is useful for the internal company (to know company performance this year compared with previous years) and external party. Financial ratios are grouped into five types, namely profitability ratios, liquidity ratios, solvency ratios, management activity ratios, and market/value ratios.

2.1 Profitability

Profitability is the end result of a number of policies and decisions made by the company (Brigham and Houston, 2007: 112). Profitability can be measured by Return on Asset ratio (ROA), Return on Equity (ROE) and Net Profit Margin (NPM) analysis. ROA is used to measure the company's ability to generate profits with the use of assets owned.

2.2 Liquidity

Liquidity is the ability of a company to meet its financial obligations (Riyanto, 1995: 25). Liquidity is related to a company's ability to convert its current assets into cash. The financial ratios used to measure liquidity are Current Ratio (CR), Quick Ratio (QC) and Cash Ratio.

2.3 Firm value

Firm value is the market value of debt securities and corporate equity circulating in the community (Keown, 2004: 470). The approach that can be used to analyze the value of the company, including Price Earning Ratio (PER), Price Book Value Ratio (PBVR), Book to Market Ratio (BtMR), Dividend Yield Ratio (DY) and Dividend Payout Ratio (DPR). BtMR can be a proxy of risk factors that affect the expected return, so companies with high BtMR tend to have a larger stock return.

3. Firm Size

The firm value has a sense of the size of the company that can be seen from the value of equity, the total value of sales or the total value of its assets Brigham et al.. (2007). Large-size companies have greater access and extensive access to external sources of funding.

4. Economic Growth Rate

Economic growth is an increase in income that allows people to consume more goods and services (Mankiw, 2010: 191). Economic growth can be calculated using the data gross domestic product (GDP) which calculates the total income of all people within a country.

Previous Researches and Hypothesis

Profitability and Stock Return

The results (Nichol & Dowling, 2014) profitability affects stock returns. , (Ball, Gerakos, Linnainmaa, & Nikolaev, 2016) found that profitability has affected and reported back on average.

Hypothesis 1: The intimate profitability of stock returns.

Liquidity and Stock Return

Research (Ze-To, 2016) using Fama and French (1993) three-factor model and Carhart (1997) four-factor model found a strong and positive relationship between liquidity and stock returns. It is designed by research (Chang, Faff, & Hwang, 2010) on the Tokyo Stock Exchange (TSE) to see a strongly significant result between liquidity and stock returns worldwide (Leirvik, Fiskerstrand & Fjellvik ??, 2017) very significant between market liquidity and stock returns.

Hypothesis 2: The influence of liquidity on stock return.

Firm Value and Stock Return

Research (Donnelly, 2014) proves in particular that low stocks (low BTM stocks) are sensitive to disappointment in earnings (disappointing earnings) while high BTM shares (high BTM stocks) are not. Research (Bulkley, Harris, & Herreras, 2004) that the value of the book to market equity can predict stock returns. The research that has been done by (Fama & French, 2006) shows that the higher the value of BtMR, the higher the stock return is generated.

Hypothesis 3: The influence of firm value on stock return.

Firm Size and Stock Return

Research (Lam, 2002) firm size (firm size) affected the average stock price level in Hongkong from June 1984 to July 1997. (Ibhagui & Olokoyo, 2018) found a significant and negative effect on small firms, However, the effect decreased when a growing company, eventually yielding some measure of a fair rate. Other findings also show the effect of leverage on positive Tobin Q for companies registered in Nigeria and that the strength of a positive relationship depends on firm size; mostly higher for small

companies. Findings (Dang, (Frank) Li, & Yang, 2018) regression coefficients of firm size and significance posed by firm size.

Hypothesis 4: The existence of firm size identity to stock return.

Economic Growth and Stock Return

Research (Maio & Philip, 2015) macroeconomic variables do not have a significant influence on investment components. Based on research Ritter (2005) GDP has no effect on return, while research Wasdim (2017) GDP gives a significant effect on stock return.

Hypothesis 5: The existence of China's economic influence on stock returns.

Hypothesis 6: The influence of India's economic growth on stock returns.

Based on previous literature and research studies, one of the variables affecting economic variables (GDP) affects returns or not. Therefore, there are 2 models according to the hypothesis as follows:

- First Model, without entering macroeconomic variables.
- Model, Second, economic variable as the independent variable.

III. RESEARCH METHOD

This research is a quantitative research by using causality model, where the data source used is secondary data. The object of research of coal companies listed on the Indonesia Stock Exchange for the period 2008-2016.

1. Variable Research and Operationalization of Variables

Table 1. Variable Methodology Measurement

Variables	Definition	Measurement
Stock Return	Return of stock price performance of coal mining at the end of period (Jogiyanto, 2009: 201)	$R_{it} = \frac{P_{it} - P_{i(t-1)} + D_{it}}{P_{i(t-1)}}$
Profitability	Profit or net profit as measured by the return of the owner's capital. (Brigham and Houston, 2007: 120)	$ROA = \frac{\text{Net Income}}{\text{Total Asset}} \times \frac{\text{Total Asset}}{\text{Common Equity}}$
Liquidity	The ability of the company to meet short-term debt with total assets lancer (Hery, 2016: 50)	$CR = \frac{\text{Current Asset}}{\text{Current Liabilities}}$
Firm Value	The selling price of the company is considered feasible if the company is sold.	$BtMR = \frac{\text{Book value per share}}{\text{Market price per share}}$

	(Fama & French, 2006)	
Firm Size	The firm size is measured by the total assets held at the end of the year period transformed into natural logarithms (Ghozali, 2006)	$SIZE = \ln \text{Total Asset}$
Economic Growth	GDP growth in China and India	Percentage Growth of GDP

2. Research Model

a. First Model:

$$Y_1 = a + b_1 \cdot ROA + b_2 \cdot BtMR + b_3 \cdot SIZE + b_4 \cdot CR + e$$

b. Second Model:

$$Y_2 = a + b_1 \cdot ROA + b_2 \cdot BtMR + b_3 \cdot SIZE + b_4 \cdot CR + b_5 \cdot Ch + b_6 \cdot In + e$$

Information

Y = Stock return on coal mining

a = Constanta

b₁-b₆ = Regression coefficient

ROA = Profitability (%)

BtMR = Firm Value(*Market to Book Ratio*)

SIZE = Firm Size (Rp)

CR = Liquidity (%)

In = India's economic growth rate (%)

Ch = China's economic growth rate India (%)

e = error

Results

Descriptive statistics of the research variables in the 11 coal companies for the period of 2008-2016 can be seen in Table 2. The profitability variables have an average of 5.769% with the standard deviation of 16.45, the maximum value of 46.57% and the minimum value of -64.39%. The variable of company value has an average of 0.988% with the standard deviation of 3,025, the maximum value of 18.29% and the minimum value of -21.88%. The firm size variable has an average value of 15.49 with a standard deviation of 1,813, a maximum value of 18.29 and a minimum value of 11.62. The liquidity variable has an average value of 209.8% with a standard deviation of

225.8, a maximum value of 1742.4% and a minimum value of 0.13%. Chinese GDP variables have an average value of 8.422% with a standard deviation of 1,327, a maximum value of 10.6% and a minimum value of 6.7%. India's GDP variables have an average value of 7,366% with a standard deviation of 1,856, a maximum value of 11% and a minimum value of 4.9%. For stock return variables, obtained an average value of 0.404% with a standard deviation of 1.486, the maximum value of stock return of 8.444% and the minimum value of -0.927%.

Table 2. Descriptive Statistics

	ROA	BTMR	SIZE	GDP CHINA	GDP INDIA	CR	RETURN
Mean	5.769	0.988	15.49	8.422	7.366	209.8	0.404
Median	2.950	0.715	15.79	7.900	7.50	164.5	-0.074
Max	46.57	13.39	18.29	10.60	11.00	1742	8.444
Min	-64.39	-21.88	11.62	6.70	4.90	0.130	-0.927
Std. Dev.	16.45	3.025	1.813	1.327	1.856	225.8	1.486
Skewness	-0.243	-3.526	-0.424	0.201	0.377	4.890	2.761
Kurtosis	6.099	37.27	2.325	1.585	2.484	31.04	12.516
Jarque-Bera	40.59	5048. 406	4.840	8.920	3.446	3637. 268	499.349
Prob	0.000	0.000	0.089	0.011	0.178	0.000	0.000
Sum	571.2	97.87	1534	833.80	729.3	20774	40.056
Sum Sq. Dev.	2653 4.76	896.6	322.1	172.65	337.7	49979 71.	216.345
Observ.	99	99	99	99	99	99	99
Cross sections	11	11	11	11	11	11	11

Regression test results using E-views 9.0 software can be seen in Table 3.

Table 3. Multiple Regression Test Results

Variables	Model 1		Model 2	
	Coefficient	Prob.	Coefficient	Prob.
C			19.4286	0.0012
ROA	0.0194	0.0423	0.0629	0.0001
BTMR	-0.0726	0.1529	-0.1009	0.0614
SIZE	0.0253	0.0524	-1.0335	0.0016
CH			-0.7128	0.0000
IN			0.4221	0.0000
CR	-0.0002	0.7578	-0.0018	0.0173
F-statistic				3.374608
Prob (F-statistic)				0.000148
Adjusted R ²		0.022605		0.279379
R ²		0.052525		0.397031

The second model (Table 3) is the best model because it gives the value of adjusted R² is greater than the first model. The results of this second model can be seen that the profitability and GDP of India have a significant positive effect on stock returns of coal companies. As for the variable size of the company, liquidity, and GDP, China gives a significant negative impact on the stock returns of coal companies. The variable of firm value does not give significant influence to stock return.

Profitability gives a positive influence on stock returns, it can be interpreted that investors still think the higher the income, it will impact on large profit margins and ultimately impact on higher stock returns. The negative value on liquidity results indicates that the smaller the short-term debt that should be financed by the company through current assets, this will provide benefits to investors, so the return they earn will also increase. The value of the company gives a negative influence on stock returns because the companies in Indonesia still have a fundamental good performance so that when the stock price is under price, investors tend to be more interested to buy it. The size of the firm negatively affects stock returns in accordance with the phenomenon of size effect where smaller company stocks tend to have a larger return.

China's GDP and India have a significant impact on stock returns of coal companies in Indonesia. Increasing the economy of the people in India will make the demand for coal to increase, so India will do more imports of coal to Indonesia. With the increasing demand for imports of coal from India, it will surely increase revenue

from coal companies in Indonesia, so stock returns will increase as well. The rise of China's GDP makes the stock return of coal companies in Indonesia decreased. The increase in China's GDP, however, continues to have an impact on increasing demand for coal, but since 2013, the Chinese government's policy to start reducing the use of coal as a source of energy. The use of coal is considered to pollute the environment and the government sees that the amount of coal in China and the world will be even smaller, so some efforts should be made to start the use of coal with other energy sources that are more environmentally friendly (www.iea.org).

IV. CONCLUSION

Based on this research, the following results are obtained:

1. Profitability variable has a significant positive effect on stock return either on the first model or on the second model.
2. Liquidity variable does not have a significant influence on stock return in the first model, but in the second model, liquidity variables have a significant negative effect on stock returns.
3. Firm value variable has no significant effect on stock return either on the first model or on the second model.
4. Firm size variable does not have a significant influence on stock return in the first model, but in the second model variable size of the company has a significant negative effect on stock return.
5. China's economic growth rate variable has a significant negative impact on stock returns.
6. India's economic growth rate variable has a significant positive effect on stock return.

The general conclusion, including macro variables (economic growth: India and China) into the model produces a better model. This can be seen from the significance level and the coefficient value of each variable and the rising value of adjusted R^2 and F-statistic value is very significant.

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