ANALYSIS OF FACTORS THAT AFFECT COMPOSITE STOCK PRICE INDEX MOVEMENT IN INDONESIA STOCK EXCHANGE

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ABSTRACT

There are two factors that affect composite stock price index, they are internal and external factors. Internal factor used in interest rate research (BI Rate), Indonesian rupiah currency exchange toward USD (KURS), and inflation. External factors in this research are exchange value of world gold. Dow Jones Industrial Average (DJIA) and West Texas Intermediate (WTI). The research structure applies quantitative and managing data by using Statistical Package for Social Sciences (SPSS). Data in this study is secondary data which is collected in 2016 until 2018. Result of study stated that interest rate (BI Rate), Indonesian rupiah currency exchange toward USD (KURS), inflation, and world gold value does not affect composite stock price. Dow Jones Industrial Average (DJIA) gives positive impact the stock price, meanwhile the texas world intermediate gives negative impact toward composite stock exchange.

Keywords: BI rate, exchange rate, gold, Dow Jones Industrial Average, West Texas Intermediate.

INTRODUCTION

Capital market has important role in increasing economic activity of a country (Tumanggor, 2014:37). Because, capital market is one of alternative financing sources for company and society, capital market is place where people can invest their treasure (Nasution, 2015). One of indicator that can measure capital market working performance is return market. Return market of Indonesia is displayed as Composite stock price index or IHSG. Composite stock price index is one of index that become guidance for investors while investing their money in Indonesia Stock Exchange known as BEI. Composite stock price index movement could be determined by two factors which are internal and external factors.

First internal factor is interest rate of Bank Indonesia known as BI rate. Increasing value of BI rate will empower Rupiah, in return it will lower composite stock price value. Previous study conducted by Tursoy et. al. (2008), Pinlinkus and Boguslauskas (2009), Buyuksalvarci (2010), Chabachib and Witjaksno (2011), Rusbariand et. al. (2012), Hismendi et. al. (2013), Jayanti (2014) stated that BI rate give negative impact toward composite stock price. Meanwhile, Rohmanda et. al. (2014) stated that the rate will give positive impact toward composite stock price.

Second internal factor is Indonesian rupiah currency exchange toward USD. Weaken Rupiah exchange becomes a clear negative signal for investors, they will not risk their capital to be invested in Rupiah among international market. Previous studies conducted by Pinlinkus and Boguslauskas (2009), Bayuksalvarci (2010), Kewal (2012), Jayanti (2014), Harsono and Worokinasih (2018) stated that Indonesian rupiah currency exchange toward USD gives negative impact toward composite stock price. Meanwhile, a study by Handiani (2014) found contrast result stated that Indonesian rupiah exchange rate gives positive impact toward compsite stock price. Beside, Tursoy et. al. (2008), Gay (2008) stated that there is no significant impact between Indonesian rupiah exchange toward usd and composite stock price.

Third internal factor is inflation, inflation is a negative signal for investors and it will lower investors interest to place their capital, thus it will give indirect impact toward composite stock price (Harianto dan Sudomo, 2001:14). A study conducted by Mahmod and Dinniah (2007) stated that inflation gives positive impact toward composite stock price. Meanwhile, Tursoy et. al. (2008), Bayukalsalvarci (2010), Movahedizadeh et. al (2014) stated that inflation give no significant effect toward composite stock price. On the contrary Pilinkus and Boguslauskas (2009), and Rusbariand et. al. (2012) stated that inflation gives negative impact toward composite stock price. Kewal (2012) and Jayanti (2014) stated that inflation provide insignificant negative impact toward composite stock price.

First external factor is world gold price, gold is zero inflation, thus gold become most desired currency in wide world. Values of gold always follow inflation. Gold also become one of currency protection instrument (Wang et. al., 2010). A study conducted by Movahedizadeh et. al. (2014) stated that world gold price gies positive impact toward composite stock price. Meanwhile, study by Tursoy et. al. (2008), Bayuksalvarci (2010), and Rusbariand et. al. (2012) claimed that world gold price does not give significant impact toward composite stock price.

Second external factor is another stock index. This study uses Dow Jones index Dow Jones Industrial Average (DJIA). Because, Dow Jones index become biggest average index in the world and movement of dow jones index affect almost every other index movements in capital market of Indonesia (Virby, 2005). Study conducted by Virby (2005), Chabachhib and Witjaksoono (2011) stated that Dow Jones Industrial Average gives positive impact toward composite stock price.

Third external factor is the West Texas Intermediate. Fluctuation of world crude oil will indirectly affect export and import sector of a country. It will give provide benefit for mining sector (Wang et. al., 2010). Studies conducted by Kilian and Park (2007), Bjornland (2008), Chabachhib and Witjaksoono (2011), Handiani (2014) stated that world crude oil price give positive impact toward composite stock price. On contrary, Adebiyi et. al. (2009) stated that TWI will bring negative impact toward composite stock price movement.

LITERATURE REVIEW

A. Signal Theory

Signal theory is an act of a company to inform investors about its working performance , (Brigham and Houston, 2013). A positive signal by company will lower instability of company’s development in future.

B. Bank Indonesia Interest Rate

Samuelson and Nordhaus (2011) stated that interest rate is a price that must paid to use money for particular time. Interest rate used in this study is Bank Indonesia rate.

C. Exchange Rate

Exchange value means the price of single currency compared to another currency which is determined by foreign exchange market (Ruhendi dan Arifin, 2003). Exchange value commonly used in Indonesia is exchange value of IDR toward USD.

D. Inflation

Inflation is the raising price of commodity in market which is affected in large area and continuously affecting (Rahardja and Manurung, 2008:165). The higher inflation is, the lower public demand will be. Raising inflation must be followed with enough stock of commodity and raising significant income in order to avoid economic problem , (Harsono and Worokinasih, 2018).

E. Word Gold Price

Gold is one of world commodity that is used to be a payment instrument (Gumilang et. al., 2014:3). Standard of gold value used in world wide is standard London gold price.

F. Dow Jones Industrial Average (DJIA)

Dow Jones Industrial Average (DJIA) is the oldest stock index in united states and become representation the most important industrial working performance in united stated (Witjaksno, 2010).

G. World crude oil price

The fluctuation of world crude oil price affect capital market of a country. The rising price of world crude oil will give significant benefit for mining sector and it will lower the benefit of non-mining corporation (Handayani, 2014).

H. Composite stock price index

The movement of composite stock price in Indonesia Stock Exchange becomes a general benchmark form stock condition and it becomes general indicator of all stock price movement registered in Indonesia Stock Exchange.

RESEARCH DESIGN

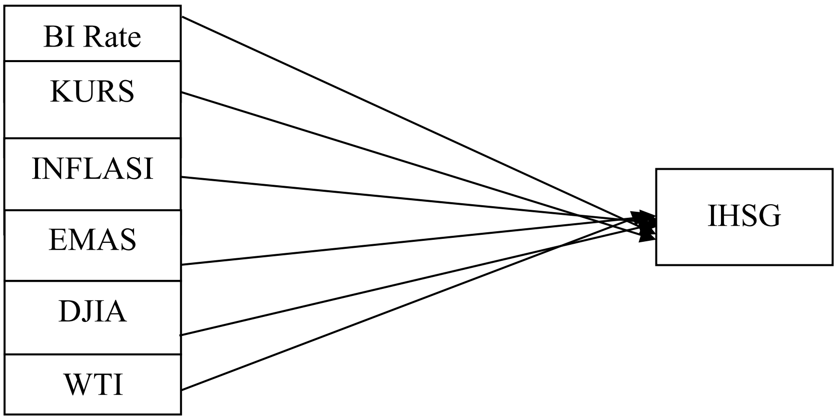

Figure 1. Research procedure

Note:

BI Rate : Bank Indonesia interest rate
KURS : Rupiah exchange value toward USD
INFLASI: Inflation value
EMAS : World gold value

DJIA: Dow Jones Industrial Average
WTI : Crude oil price/West Texas Intermediate
IHSG : Stock price index

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Research Design will apply quantitative research and managing the data by using Statistical Package for Social Sciences (SPSS). Data in this study is secondary data which is collected in 2016 until 2018. Independent variables in this study are rate (BI Rate), Indonesian rupiah currency exchange toward USD (KURS), inflation, world gold value, Dow Jones Industrial Average (DJIA), and West Texas Intermediate (WTI). Dependent variable in this study is composite stock price index or IHSG.

Basic and equation model used in this study are, as follow:

$$IHSG_{it}=\alpha 0 +\beta BIRATE+\beta KURS+\beta INFLASI+ \beta EMAS+\beta DJIA+\beta WTIeit$$

Note:

IHSGit = Composite stock price index number-i for –t period.

β_{EMAS} = Gold price

β_{BIRATE} = Bank Indonesia interest rate value

β_{KURS} = Indonesian rupiah currency exchange toward USD

$\beta_{INFLASI}$ = Inflation

β_{DJIA} = *Dow Jones Industrial Average*

β_{WTI} = *West Texas Intermediate*

FINDING AND DISCUSSION

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BI_RATE	36	4.2500	7.2500	5.090278	.7954172
KURS	36	12933.0000	15151.0000	13600.416667	545.6298261
INFLASI	36	2.7900	4.4500	3.512500	.4444025
EMAS	36	1118.2000	1351.1000	1260.983056	54.4950911
DJIA	36	16466.3000	26458.3100	21653.670833	3104.3849194
MINYAK	36	33.5200	74.1500	53.627222	10.6522061
IHSG	36	4615.1600	6605.6300	5639.619722	511.2377597

Table 1 shows statistics descriptive from research variables from 2016 to 2018

Table. 2. Result of F_{count}

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8625559.277	6	1437593.213	79.838	.000^b
	Residual	522182.365	29	18006.288		
	Total	9147741.642	35			

a. Dependent Variable: IHSG
b. Predictors: (Constant), MINYAK, EMAS, INFLASI, BI_RATE, DJIA, KURS

Result of F_{count} on table 2explained the effect of Bank Indonesia interest rate, Indonesian rupiah currency exchange toward USD (KURS), inflation, world gold value, *Dow Jones Industrial Average* (DJIA), and West Texas Intermediate (WTI) toward composite stock price index from 2016 to 2018 has value of 79,838, within signification value of 0,000. It means that the signification model is smaller than 0,05. Thus, the regression model could be used to predict composite stock price index or IHSG.

Table. 3. Result of R2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.971[a]	.943	.931	134.1875123

a. Predictors: (Constant), MINYAK, EMAS, INFLASI, BI_RATE, DJIA, KURS

Result of R^2 displayed in table 3 shows the effect of Bank Indonesia interest rate, Indonesian rupiah currency exchange toward USD (KURS), inflation, world gold value, *Dow Jones Industrial Average* (DJIA), and West Texas Intermediate (WTI) toward composite stock price index from 2016 to 2018 has value of 0,943. 0,943 value means Bank Indonesia interest rate (BI Rate), Indonesian rupiah currency exchange toward USD (KURS), inflation, world gold value (EMAS), *Dow Jones Industrial Average* (DJIA), and West Texas Intermediate (WTI) toward composite stock price index (IHSG) IS 94,3%, meanwhile the rest 5,7% is affected by another variable that will be revealed in future study.

Table. 4. Regression Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2033.728	1788.732		1.137	.265
	BI_RATE	-162.407	63.184	-.253	-2.570	.016
	KURS	-.002	.132	-.002	-.015	.988
	INFLASI	-48.118	68.477	-.042	-.703	.488
	EMAS	1.376	.575	.147	2.394	.023
	DJIA	.183	.020	1.112	9.183	.000
	MINYAK	-19.985	4.887	-.416	-4.090	.000

a. Dependent Variable: IHSG

Equation model used to test hypothesis 1 to six are displayed on 4.

Hypothesis 1 stated that Bank Indonesia interest rate (BI Rate) has negative impact toward composite stock price index. The result of this study revealed that there is negative impact between Bank Indonesia rate (SBI) toward composite stock price as much as -162.407 within p value of 0,016. Based on explanation above, H_1 is rejected stated that BI rate has no effect on composite stock price. Such result is supported by previous study conducted by Kewal (2012), Krisna and Ni Gusti (2013).

Hypothesis 2 stated that Indonesian rupiah currency exchange toward USD (KURS) has negative impact toward composite stock price index. Result of study revealed that there is negative impact between Indonesian rupiah currency exchange toward USD (KURS) and composite stock price index as much as -0,002 within p value of 0,988. Based on explanation above, H_2 is rejected stated that Indonesian rupiah currency exchange toward USD (KURS) has no impact toward composite stock price index. It is supported by previous studies conducted by Tursoy *et. al.* (2008) and Gay (2008).

Hypothesis 3 stated that inflation has positive impact toward composite stock price index. Result of study revealed that there is negative impact between inflation and composite stock price index as much as -48,118 within p value of 0,488. Based on explanation above, H_3 is rejected stated that inflation has no impact toward composite stock price index. It is supported by previous studies conducted by Kewal (2012) and Jayanti (2014).

Hypothesis 4 stated that world gold price has positive impact toward composite stock price index. Result of study revealed that there is positive impact between world gold price and composite stock price index as much as 1,376 within p value of 0,023. Based on explanation above, H_4 is rejected stated that world gold price has no impact toward composite stock price index. It is supported by previous studies conducted by Tursoy *et. al.* (2008), Bayuksalvarci (2010), and Rusbariand *et. al.* (2012).

Hypothesis 5 stated that *Dow Jones Industrial Average* (DJIA) has positive impact toward composite stock price index. Result of study revealed that there is positive impact between *Dow Jones Industrial Average* (DJIA) and composite stock price index as much as 0,183 within p value of 0,000. Based on explanation above, H_5 is accepted stated that *Dow Jones Industrial Average* (DJIA) has positive impact toward composite stock price index. It is supported by previous studies conducted by Virby (2005), Chabachhib and Witjaksoono (2011).

Hypothesis 6 stated that world crude oil has positive impact toward composite stock price index. Result of study revealed that there is negative impact between world crude oil and composite stock price index as much as -19,985 within p value of 0,000. Based on explanation above, H_6 is rejected stated that world crude oil has negative impact toward composite stock price index. It is supported by previous studies conducted by Adebiyi *et. al.* (2009).

CONCLUSION

Based on the findings and discussion, conclusions are:

1. Bank Indonesia interest rate (BI Rate) has no impact toward composite stock price index.
2. Indonesian rupiah currency exchange toward USD (KURS) has no impact toward composite stock price index.
3. Inflation has no impact toward composite stock price index.
4. World gold price has no impact toward composite stock price index.
5. Dow Jones Industrial Average (DJIA)has positive impact toward composite stock price index.
6. West Texas Intermediate (WTI) has negative impact toward composite stock price index.

SUGGESTIONS

Researchers suggestions are:

1. Prolong the duration of research in order t analyze the change of composite stock price index to be more accurate.
2. Provide more external and internal factors that could affect movement of composite stock price index.

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