



ELIT

Economic Laboratory Transition
Research Podgorica

Montenegrin Journal of Economics

For citation:

Mahirun, M. (2024), "Determinants of Indonesia Composite Index",
Montenegrin Journal of Economics, Vol. 20, No. 3, pp. 191-201.

Determinants of Indonesia Composite Index

MAHIRUN MAHIRUN¹

¹ Universitas Pekalongan, Faculty of Economics and Business, Indonesia, Jl. Sriwijaya No. 3, Pekalongan, Indonesia,
orcid: <https://orcid.org/0000-0002-9193-5172>, e-mail: mahirun@yahoo.com

ARTICLE INFO

Received June 23, 2023
Revised from July 23, 2023
Accepted August 22, 2023
Available online July 15, 2024

JEL classification: G1, G3, E2, E4, E5, E6

DOI: 10.14254/1800-5845/2024.20-3.14

Keywords:

Indonesia Composite Index,
gross domestic product,
money supply,
inflation,
Bank Indonesia interest rate,
exchange rate

ABSTRACT

This study aims to test and analyze the effect of gross domestic product on the Indonesia Composite Index by including the variables of money supply, inflation, Bank Indonesia interest rate, and exchange rate. The data used is quarterly data of each variable and comes from the Indonesian economic report and Indonesia stock exchange for the period 2008 to 2022. Testing the independent variables on the dependent variable is done using multiple linear regression test tool. The main findings of our research are gross domestic product and money supply are proven to have a positive and significant effect on the Indonesia Composite Index. Inflation and exchange rate are not proven to have an effect on the Indonesia Composite Index, because they have a positive but insignificant effect, this is the same as the Bank Indonesia interest rate which is not proven to have an effect, because even though the direction is negative, it has no significant effect on the Indonesia composite index.

INTRODUCTION

The development of the capital market can be used as a benchmark for the economic development of a country as a whole and reflects macroeconomic conditions. According to Bank Indonesia (2022), one of the indicators that is often used to see the development of the capital market in Indonesia is the Indonesia Composite Index (IDX Composite). Composite stock price index is an index that uses all listed stocks as components of the price index calculation and describes price movements for common and preferred stocks (Tandelilin, 2017). In addition, this index can be used as a mirror of Indonesia's economic conditions.

According to Brooks & Tsolacos (1999), through the Indonesia Composite Index an investor can see whether the market condition is bullish or bearish. Macroeconomic conditions as external factors can also affect company performance and value. Fama (1981) states that the movement of macroeconomic factors can be used to predict stock price movements, but each researcher uses different macroeconomic factors because there is no consensus on which macroeconomic factors affect stock prices. Tandelilin

(2017) states that macroeconomic factors are empirically proven to have an influence on capital market conditions in several countries. These factors are: Gross domestic product, inflation, interest rates and currency exchange rates.

The fluctuating movement of the Indonesia Composite Index due to macroeconomic influences will have an impact on investors' and potential investors' perceptions of the capital market. The Indonesia Composite Index which tends to be unstable will reduce investor interest in investing in the capital market. If the Indonesia Composite Index tends to go down, then investors will also sell which will have an impact on the decline in the company's share price. In addition, potential investors who wish to invest in the capital market will also discourage their intention to invest. The fluctuating Indonesia Composite Index can provide its own advantages and disadvantages for both investors and issuers. Investors and issuers will experience profits if the Indonesia Composite Index tends to move positively, and vice versa, investors and issuers will experience losses if the Indonesia Composite Index moves negatively.

A macroeconomic variable that affects stock price volatility is the exchange rate. A weakening domestic currency will boost export volumes. If the needs of the international market are elastic enough, this will increase the cash flow of domestic companies which in turn increases the stock price reflected in the Composite Stock Price Index. Conversely, if the issuer buys foreign products, and has debt in dollars, then its share price will fall. A weakening exchange rate will push up share prices reflected in the Jakarta Composite Index in an inflationary economy.

Central banks often announce target zones or trading ranges for their currency exchange rates. Central banks state that they will enforce these zones by intervening in the market to keep the price of their currency from exceeding the upper limit of the zone or falling past the lower limit of the zone. If banks actually enforce these zones, then the price cap will become imperforate as it will limit asset prices forever (Donaldson & Kim, 1993). The movement of the Indonesia Composite Index over the period 2008 to 2022 is presented in Figure 1.

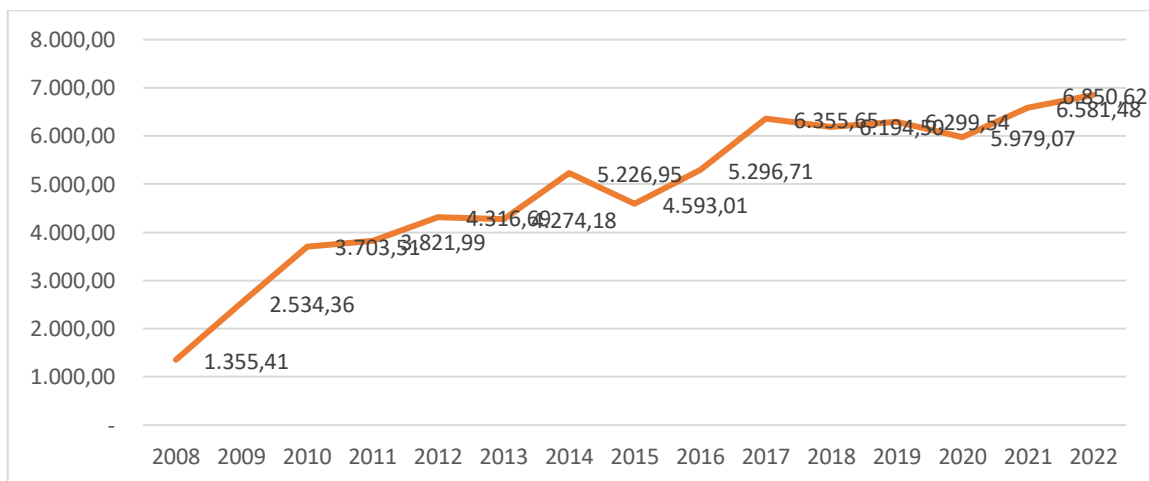


Figure 1. Graph of Indonesia Composite Index 2008-2022

Based on Figure 1, we can conclude that there has been a significant increase in the Indonesia Composite Index in 2022 from 2008 which reached 405.43%. On average, the increase in the Indonesia Composite Index over 15 years reached 14.43%, and although it has experienced a decline reaching 12.13% in 2015. Based on this phenomenon, it becomes very interesting for us to further examine based on signaling theory, the relationship between economic variables and their influence on the Indonesia Composite Index. Our research focuses on macroeconomic variables in relation to the Indonesia Composite Index, with the argument that these factors determine Indonesia's economic growth which is a measure of the level of public welfare.

1. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

1.1 Literature Review

1.1.1 Signalling Theory

Spence (1973) introduced signal theory by suggesting that a signal or signal provides a signal, the sender (information owner) tries to provide relevant pieces of information that can be utilized by the receiver. The signal received will be interpreted according to the understanding of the recipient and result in a change in behavior. Signaling theory explains how companies give signals to users of financial statements about what management must do to make efforts according to the wishes of the company owner. So it is hoped that the information provided is positive information about the company's performance which is better than other companies. In other words, companies can provide positive signals to be captured by potential investors in the form of investment in the company concerned. According to Brigham & Houston (2012), a signal is an action taken by a company to provide clues to investors about how management views the company's prospects. Information is an important issue issued by the company, and can affect investments made by external parties. Information, notes or descriptions, regarding past, present and future conditions for the continuity of the company's life and how the impacts that might arise.

1.1.2 Stock Price

The stock market price is the price determined by the demand and supply of market participants for a share. Naturally, the stock price is a reflection of the company's performance, so if the stock price rises, this indicates good company performance. Increasing company performance from time to time can increase stock prices, and this is liked by investors (Elliott & Schaub, 2006; Ragab & Omran, 2012; Aono & Iwasako, 2011; Sun et al., 2016). This shows that there is a positive relationship between financial performance and stock price. The higher the financial performance the higher the share price, and vice versa.

1.1.3 Indonesia Composite Index

According to the Indonesian Stock Exchange, the Indonesia Composite Index (ICI) or IDX composite measures the performance of all stocks listed on the IDX main board and development board and is a statistical measure that reflects the overall price movement of a set of stocks selected based on certain criteria and methodology and evaluated regularly. The purpose of stock indices include measuring market sentiment, being used as passive investment products such as Index Mutual Funds and Index ETFs and derivative products, benchmarks for active portfolios, proxies in measuring and modeling investment returns (returns), systematic risk, and risk-adjusted performance, as well as proxies for asset classes in asset allocation. Hartono (2017) explains that the Indonesia Composite Index is a stock price index number that has been compiled and calculated by producing a trend, where the index number is a number that is processed in such a way that it can be used to compare events that can be changes in stock prices from time to time.

1.1.4 Economic Growth Theory

The Harrod-Domar economic growth theory is a growth theory that uses capital accumulation, labor, and resources as factors that affect a country's economic growth, while interest rates are considered constant or fixed (Thong & Hao, 2019). Solow (1956) argues that interest rates can change or are not constant, so that changes in interest rates will affect movements in savings and investment in society. This theory describes how economic growth in developing countries, using a combination of the use of capital accumulation and labor, and adding technological factors in influencing the country's economic growth. An indicator often used to measure economic growth is the gross domestic product, which is defined as the value of final goods and services produced by various units of production in a country's territory in a given

year. Commodities are real objects that are relatively easy to trade, can be physically delivered, can be stored for a certain period of time and can be exchanged for other products of the same type, which can usually be bought or sold by investors through futures exchanges (Chen et al., 1986; and Hsing, 2011).

1.2 Hypothesis Development

1.2.1 Hypotheses for money supply and Indonesia Composite Index

Stable growth in the amount of money is expected to increase people's purchasing power and is expected to have an impact on capital market demand and supply. Increased demand and supply by itself will increase stock prices thereby increasing the stock index on the stock exchange. The results found that money supply has a significant positive effect on the Indonesia Composite Index. (Suhartini & Widodoatmodjo, 2021; Sumaryoto et al., 2021; and Koapaha, 2022). Meanwhile, Wahyudi et al. (2017) found a positive and insignificant effect. Based on this, the first hypothesis proposed is:

H1: money supply has a positive effect on Indonesia Composite Index

1.2.2 Hypotheses for inflation and Indonesia Composite Index

The rise and fall of the stock price index can occur due to certain forces in the economy that cause the price level to rise suddenly, while other causes cause the price level to rise gradually and constantly. Inflation is directly related to a decline in purchasing power, both for individuals and businesses, which is a significant phenomenon that occurs in almost every country in the world. According to Hooker (2004) Inflation rates have a considerable impact on stock values. Relatively increasing inflation is a bad indication for capital market players. The results of the study found that inflation has a significant negative effect on the Indonesia Composite Index (Wahyudi et al., 2017; Fuad & Yuliadi, 2021; and Koapaha, 2022), Meanwhile Vikaliana (2017) negative effect is not significant. While Hariyani et al. (2020) and Sumaryoto et al. (2021) found a positive and significant direction of influence, another study conducted by Rahmalia & Kurniasih (2021) and Islam et al. (2023) found a positive direction of influence, but not significant. Based on this, the second hypothesis is:

H2: inflation has a negative effect on Indonesia Composite Index

1.2.3 Hypotheses for Bank Indonesia interest rate and Indonesia Composite Index

Interest rates play a crucial role in the investment decisions made by investors. A high interest rate will affect the present value of the company's cash flow, so that existing investment opportunities will no longer be attractive. A high interest rate will also increase the cost of capital that the company will bear and will also cause the return required by investors from an investment to increase. Investors will withdraw their investment in stocks and divert it to deposits because it has little risk. The study found that the Bank Indonesia interest rate has a significant negative effect on the Indonesia Composite Index. (Wahyudi et al., 2017; and Koapaha, 2022), while Vikaliana (2017) and Rahmalia & Kurniasih (2021) found a negative although insignificant direction of influence of the Bank Indonesia interest rate on the Indonesia Composite Index. The results of another study found that the effect of Bank Indonesia interest rate on the Indonesia Composite Index is positive and significant (S. Wahyudi et al., 2017), and also positive but not significant (Fuad & Yuliadi, 2021 and Suhartini & Widodoatmodjo, 2021). Based on this description, the third hypothesis proposed is:

H3: Bank Indonesia interest rate has a negative effect on Indonesia Composite Index

1.2.4 Hypotheses for exchange rate and Indonesia Composite Index

The exchange rate is one measure of economic stability in Indonesia. exchange rate that is stable and even tends to appreciate will reduce the potential risk of investment. Hariyani et al. (2020) In his study, he found that the effect of the exchange rate on the Indonesia Composite Index is positive and significant, whereas Vikaliana (2017) While other studies have found that the effect of the exchange rate on the Indonesia Composite Index is negative significant. While other studies have found that the effect of the exchange rate on the Indonesia Composite Index is negative and significant (Wahyudi et al., 2017; Fuad & Yuliadi, 2021; and Rahmalia & Kurniasih, 2021), there are also studies with results that have an insignificant negative effect (S. Wahyudi et al., 2017; and Suhartini & Widoatmodjo, 2021). Based on this, the fourth hypothesis proposed is:

H4: exchange rate has a negative effect on Indonesia Composite Index

1.2.5 Hypotheses for gross domestic product and Indonesia Composite Index

Gross domestic product is one of the factors that affect stock price changes. The estimated gross domestic product will determine the development of the economy. Because it comes from the number of consumer goods that do not include capital goods. An increase in the number of consumer goods causes the economy to grow, and increases the scale of the company's sales turnover, because people are consumptive. Increasing sales turnover, the company's profits also increase, so that the company's share price will also increase, which has an impact on the movement of the Indonesia Composite Index. So that gross domestic product has a significant positive effect on the Indonesia Composite Index (S. Wahyudi et al., 2017; Jamil et al., 2020; Rahmalia & Kurniasih, 2021; and Islam et al., 2023). Meanwhile, Wahyudi et al. (2017) and Koapaha (2022) found an insignificant although positive effect. Based on this, the fifth hypothesis proposed is:

H5: gross domestic product has a positive effect on Indonesia Composite Index

2. RESEARCH METHODOLOGY

2.1 Data Collection and Sources

Our study uses secondary data, and data sourced from indonesia economic report and Indonesia stock exchange for the period 2008 to 2022. Indonesia Composite Index, gross domestic product, inflation, Bank Indonesia interest rate using quarterly data, exchange rate using quarterly data from the rupiah to dollar exchange rate ratio, money supply using quarterly money supply (M2), and to answer research questions used multiple regression with Indonesia Composite Index is dependend variable.

2.2 Empirical Model

The focus of the study is on empirical testing of variable integration related to the Indonesia Composite Index involving money supply, inflation, Bank Indonesia interest rate, exchange rate, and gross domestic product. The model of the empirical study is presented in figure 2.

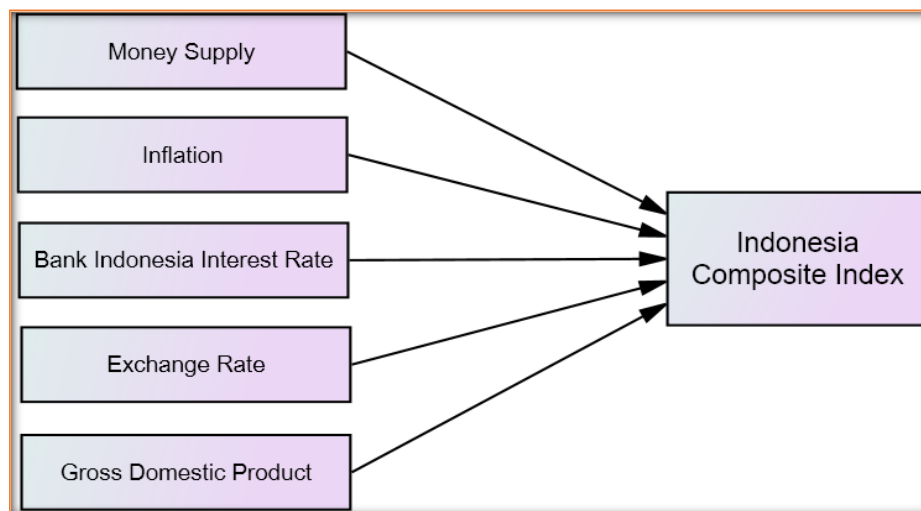


Figure 2. Empirical Model Research

Source: own

Both structures formed in figure 2 are structure states the causal relationship of variables MS, INF, Blrate, ER, GDP with Indoneisa Composite Index variable. In other words, based on both structures, there are structural equations formed:

$$Indonesia\ Composite\ Index = \beta_1 MS + \beta_2 INF + \beta_3 Blrate + \beta_4 ER + \beta_5 GDP + \varepsilon_1$$

Where is:

MS = Money Supply

INF = Inflation

Blrate = Bank Indonesia Interest Rate

ER = Exchange Rate

GDP = Gross Domestic Product

On average, the Indonesian composite reached 4,754.77 with a high of 7,071.44, and a low of 1,355.41. For gross domestic product over the 15-year period, the average reached 2,080,975.09, with the highest value of 2,988,636.50, and the lowest value of 505,218.80 (table 1).

Table 1. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Money Supply	1,586,795.00	8,528,022.00	4,398,819.16	1,919,608.44
Inflation	1.33	12.14	4.82	2.47
Bank Indonesia Interest Rate	3.50	9.25	6.00	1.50
Exchange Rate	8,597.00	15,731.00	12,104.28	2,258.10
Gross Domestic Product	505,218.80	2,988,636.50	2,080,975.09	720,757.88
Indonesia Composite Index	1,355.41	7,071.44	4,754.77	1,511.37

Source: Data processed from the results of SPSS

Table 2 shows the Pearson correlation matrix among the variables, obtain the results of all variables are not correlated. The highest correlation coefficient is 94.60% between Indonesia Composite Index and

gross domestic product and shows a positive correlation. while the lowest correlation is minus 76.30% between Bank Indonesia interest rate and money supply which indicates a negative correlation.

Table 2. Pearson correlation matrix

Variable	Money Supply	Inflation	Bank Indonesia Interest Rate	Exchange Rate	Gross Domestic Product	Indonesia Composite Index
Money Supply	1					
Inflation	-0.557**	1				
Bank Indonesia Interest Rate	-0.763**	0.788**	1			
Exchange Rate	0.898**	-0.423**	-0.527**	1		
Gross Domestic Product	0.872**	-0.565**	-0.704**	0.756**	1	
Indonesia Composite Index	0.914**	-0.554**	-0.730**	0.800**	0.946**	1

Source: Data processed from the results of SPSS

3. EMPIRICAL FINDING

3.1 Classical Assumption Test Results

The classical assumption test as a regression requirement (table 3) results in a normality test of normally distributed data, there is no autocorrelation in the autocorrelation test results, there are no symptoms of multicollinearity of all variables in the multicollinearity test, and all variables do not experience heteroscedasticity disorders in the heteroscedasticity test.

Table 3. Classical Assumption Test Results

Classical Assumption Test	Result		Conclusion	
Normality Test	Kolmogorov-Smirnov Z	0.472	0.979 > 0,05 (Data is normally distributed)	
	Asymp. Sig. (2-tailed)	0.979		
Autocorrelation test	Run Test (Durbin-Watson)	1.879	dl :1.3576 du : 1.8101 dw = 1.879 1.3576 < 1.879 < 2.1899 (no autocorrelation)	
Multicollinearity Test		Tolerance	VIF	VIF value < 10 and Tolerance value > 0.01 (there is no multicollinearity problem)
	Money Supply	0.812	1.232	
	Inflation	0.363	2.754	
	BI Interest Rate	0.256	3.909	
	Exchange Rate	0.415	2.408	
	Gross Domestic Product	0.290	3.541	
Heteroscedasticity Test	Rank Spearman	t	Sig.	Sig > 0.05 (all variables do not experience heteroscedasticity disorder)
	Money Supply	-0.679	0.500	
	Inflation	-0.480	0.633	
	BI Interest Rate	0.039	0.969	
	Exchange Rate	1.413	0.164	
	Gross Domestic Product	-0.975	0.334	

Source: Data processed from the results of SPSS

3.2 Regression Analysis Test Result

The fit model test found that all data in the study can be used to predict the dependent variable, because the significance level is below 0.05 (Table 4).

Table 4. Model Fit Test Results

	<i>Model</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	120935871.4 17	5	24187174.28 3	135.740	0.000 ^b
	Residual	9265719.269	52	178186.909		
	Total	130201590.6 86	57			

Source: Data processed from the results of SPSS

The test results of the influence of each variable on the Indonesia Composite Index variable using the regression test are shown in table 5.

Table 5. Regression Analysis Test Result

	<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1	(Constant)	1008.153	578.943		1.741	0.088
	Money Supply	0.000	0.000	0.343	2.155	0.036
	Inflation	20.503	39.153	0.033	0.524	0.603
	Bank Indonesia Interest Rate	-53.018	95.803	-0.053	-0.553	0.582
	Exchange Rate	0.005	0.071	0.007	0.068	0.946
	Gross Domestic Product	0.001	0.000	0.623	8.035	0.000

Source: Data processed from the results of SPSS

The equation obtained from table 5 with the dependent variables Indonesia Composite Index (ICI) is:

$$ICI = 0.343(MS) + 0.033(INF) - 0.053(BIrate) + 0.007(ER) + 0.623(GDP)$$

$$Sig = 0.036(MS) + 0.603(INF) + 0.582(BIrate) + 0.946(ER) + 0.000(GDP)$$

3.3 Testing the effect of money supply on Indonesia Composite Index

Our study found that money supply has a significant positive effect on the Indonesia Composite Index. This can be interpreted that an increase in the money supply in the community will increase public interest in investing. A further impact is an increase in the demand and supply of stocks, which in turn will increase stock prices and increase the stock index on the stock exchange. The results of our study support the research findings which state that money supply has a positive and significant effect on the Indonesia Composite Index (Suhartini & Widoatmodjo, 2021; Sumaryoto et al., 2021; and Koapaha, 2022). However, it does not support the research findings of Wahyudi et al. (2017) found a positive and insignificant effect.

3.4 Testing the effect of inflation on Indonesia Composite Index

The test results found that inflation has a positive but not significant effect on the Indonesia Composite Index. In theory, it can be explained that high inflation rates are usually associated with overheated economic conditions. That is, economic conditions experience demand for products that exceed the capacity of product supply, so prices tend to increase. Too high inflation will also lead to a decrease in the purchasing power of money. In addition, high inflation can also reduce the level of real income earned by investors from their investments. Our results support the research conducted by Rahmalia & Kurniasih (2021) and Islam et al. (2023). However, it does not support the study conducted by Wahyudi et al. (2017); Vikaliana (2017); Hariyani et al. (2020); Fuad & Yuliadi (2021); Sumaryoto et al. (2021); and Koapaha (2022).

3.5 Testing the effect of Bank Indonesia interest rate on Indonesia Composite Index

The test results found that the Bank Indonesia interest rate has a negative but insignificant effect on the Indonesia Composite Index. Interest rates that are too high will affect the present value of the company's cash flow, so that existing investment opportunities will no longer be attractive. A high interest rate will also increase the cost of capital that the company will bear and will also cause the return required by investors from an investment to increase. This result supports research conducted by Vikaliana (2017) and Rahmalia & Kurniasih (2021) which found the direction of the negative influence of the Bank Indonesia interest rate on the Indonesia Composite Index but was not significant. However, it does not support the study conducted by S. Wahyudi et al. (2017); Wahyudi et al. (2017); Fuad & Yuliadi (2021); Suhartini & Widoatmodjo (2021); and Koapaha (2022).

3.6 Testing the effect of exchange rate on Indonesia Composite Index

The results found that the exchange rate has a positive but insignificant effect on the Indonesia Composite Index. Exchange rate is a macroeconomic variable that also affects stock price volatility. Depreciation of the domestic currency will increase the volume of exports. If the international market demand is elastic enough this will increase the cash flow of domestic companies, which then increases the stock price, which is reflected in the Indonesia Composite Index. Conversely, if the issuer buys domestic products, and has debt in dollars then its share price will fall. The depreciation of the exchange rate will increase the stock price reflected on the Indonesia Composite Index in an inflationary economy. Our findings support research conducted by Vikaliana (2017), but does not support the study conducted by S. Wahyudi et al. (2017); Wahyudi et al. (2017); Hariyani et al. (2020); Fuad & Yuliadi (2021); Rahmalia & Kurniasih (2021); and Suhartini & Widoatmodjo (2021).

3.7 Testing the effect of gross domestic product on Indonesia Composite Index

Our research findings gross domestic product has a significant positive effect on the Indonesia Composite Index. In theory, it can be explained that an increase in gross domestic product can increase consumer purchasing power for company products, thereby increasing company profitability. With an increase in company profitability, it can increase investor confidence so that it can increase stock prices. Our findings support the results of research conducted by S. Wahyudi et al. (2017); Jamil et al. (2020); Rahmalia & Kurniasih (2021); and Islam et al. (2023). However, it does not support the research conducted Wahyudi et al. (2017) and Koapaha (2022).

CONCLUSION AND IMPLICATIONS

CONCLUSION

The main finding of our study is that the overall effect of the independent variables on the dependent variable (Indonesia Composite Index) reaches 89.90% (table 6). This proves the correct selection of all independent variables in our study. While the test results found that money supply and gross domestic product have a positive and significant effect on the Indonesia Composite Index. Inflation and exchange rate although have a positive direction but insignificant effect on the Indonesia Composite Index, while the Bank Indonesia interest rate has a negative and insignificant effect on the Indonesia Composite Index.

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.948 ^a	0.899	0.890	493.242

Source: Data processed from the results of SPSS

IMPLICATION

The results of our research study show the important role of Indonesian government policy in the field of money supply and Gross domestic product, because it is proven to be able to move stock prices on the stock exchange so as to increase the Indonesia Composite Index. Economic stability needs to be maintained to maintain and even increase economic vibrancy because Gross domestic product will increase if the total value of final goods and services produced by all economic units also increases.

REFERENCES

- Aono, K., Iwaisako, T. (2011), "Forecasting Japanese Stock Returns with Financial Ratios and Other Variables", *Asia-Pacific Finan Markets*, Vol. 18, pp. 373–384. <https://doi.org/10.1007/s10690-010-9135-z>
- Brigham, E.F., Houston, J.F. (2012), *Fundamentals of Financial Management*, Harcourt Brace College, Tokyo.
- Brooks, C., Tsolacos, S. (1999), "The impact of economic and financial factors on UK property performance", *Journal of Property Research*, Vol. 16, No. 2, pp. 139–152. <https://doi.org/10.1080/095999199368193>
- Chen, N., Roll, R., Ross, S.A. (1986), "Economic Forces and the Stock Market", *The Journal of Business*, Vol. 59, No. 3, pp. 383–403.
- Donaldson, R.G., Kim, H.Y. (1993), "Price Barriers in the Dow Jones Industrial Average", *The Journal of Financial and Quantitative Analysis*, Vol. 28, No. 3, pp. 313–330.
- Elliott, R.S., Schaub, M. (2006), "On The New York Stock Exchange : A Look At Investment Opportunities", *International Business & Economics Research Journal*, Vol. 5, No. 3, pp. 7–14.
- Fama, E.F. (1981), "Stock Returns , Real Activity , Inflation, and Money", *The American Economic Review*, Vol. 71, No. 4, pp. 545–565.
- Fuad, Yuliadi, I. (2021), "Determinants of the Composite Stock Price Index (IHSG) on the Indonesia Stock Exchange", *Journal of Economics Research and Social Sciences*, Vol. 5, No. 1, pp. 1–15. <https://doi.org/10.18196/jers>
- Hariyani, D.S., Ratnawati, T., Rahmiyati, N. (2020), "Foreign Exchange Index and Macroeconomic : Pandemic Covid-19 in Indonesia", *The 3rd International Conference on Technology, Education, and Social Science 2020*, pp. 191–203.
- Hartono, J. (2017), *Portfolio Theory and Investment Analysis*, 11th ed., BPFE (in english).
- Hooker, M.A. (2004), "Macroeconomic factors and emerging market equity returns : a Bayesian model selection approach", *Emerging Markets Review*, Vol. 5, pp. 379–387. <https://doi.org/10.1016/j>

ememar.2004.09.001

- Hsing, Y. (2011), "Macroeconomic Variables and the Stock Market: The Case of Croatia", *Economic Research*, Vol. 24, No. 4, pp. 41–50. <https://doi.org/10.1080/1331677X.2011.11517479>
- Islam, S., Parvin, R., Milon, M., Das, M.K. (2023), "The Impact of Gross Domestic Product on the Bangladesh Stock Market: An Empirical Analysis", *International Journal of Finance and Accounting*, Vol. 12, No. 1, pp. 1–12. <https://doi.org/10.5923/j.ijfa.20231201.01>
- Jamil, P.C., Rosyadi, M.I., Widowati, A. (2020), "Analysis of Correlation Between Indonesian Composite Index and Economic Growth in Indonesia", *European Journal of Business and Management*, Vol. 12, No. 8, pp. 42–46. <https://doi.org/10.7176/EJBM/12-8-07>
- Koapaha, H.P. (2022), "The Impact of Macroeconomics Factors on the Jakarta Composite Index. *East Asian*", *Journal of Multidisciplinary Research*, Vol. 1, No. 10, pp. 2161–2172.
- Ragab, A.A., Omran, M.M. (2012), "Accounting Information, Value Relevance, and Investors' Behavior in the Egyptian Equity Market Aiman A. Ragab", *Review of Accounting and Finance*, Vol. 5, No. 3, pp. 279–297.
- Rahmalia, D., Kurniasih, A. (2021), "Determinant Factors of Jakarta Composite Index", *European Journal of Business and Management Research*, Vol. 6, No. 2, pp. 18–22.
- Solow, R.M. (1956), "A Contribution to the Theory of Economic Growth", *The Quarterly Journal of Economics*, Vol. 70, No. 1, pp. 65–94.
- Spence, M. (1973), "Job Market Signaling", *Quarterly Journal of Economics*, Vol. 87, No. 3, pp. 355–374.
- Suhartini, CD., Widoatmodjo, S. (2021), "The Influence of Interest Rates , Exchange Rates , and Money Supply on Jakarta Composite Index (JCI)", *Advances in Economics, Business and Management Research*, Vol. 653, pp. 26–29.
- Sumaryoto, Nurfarkhana, A., Anita, T. (2021), "The Impact of Money Supply and The Inflation Rate on Indonesia Composite Index: Case Study in Indonesia Stock Exchange 2008-2017", *International Journal of Economics, Business and Accounting Research*, Vol. 5, No. 2, pp. 196–213.
- Sun, X., Shen, H., Cheng, X., Zhang, Y. (2016), "Market Confidence Predicts Stock Price: Beyond Supply and Demand", *PloS ONE*, Vol. 11, No. 7, pp. 1–10.
- Tandelilin, E. (2017), *Capital Market: Portfolio & Investment Management*, PT Kanisius, Yogyakarta (in English). <https://opac.perpusnas.go.id/DetailOpac.aspx?id=1139651>
- Thong, L.N., Hao, N.T. (2019), "The Harrod – Domar Growth Model and its Implications for Economic Development in Vietnam", *International Journal of Humanities Social Sciences and Education*, Vol. 6, No. 4, pp. 11–17.
- Vikaliana, R. (2017), "Effect of Inflation, Interest Rate/BI Rate, and Rupiah Exchange Rate on Indonesian Composite Index (IDX) At Indonesian Stock Exchange (ISE)", *The Management Journal of Binaniaga*, Vol. 2, No. 1, pp. 41–52.
- Wahyudi, R.N., Asdar, M., Nohong, M. (2017), "The Influence of Macroeconomic Variables Toward Jakarta Composite Index on Indonesia Stock Exchange", *Stock Exchange Journal of Business, Management and Informatics*, 14, No. 2, pp. 131–148 (in England).
- Wahyudi, S., Hersugondo, H., Laksana, R.D., Rudy, R. (2017), "Macroeconomic Fundamental and Stock Price Index in Southeast Asia Countries : A Comparative Study", *International Journal of Economics and Financial Issues*, Vol. 7, No. 2, pp. 182–187.

