

ANALYSIS OF THE EFFECT OF EXCHANGE RATE, INTEREST RATE, INFLATION, AND GDP GROWTH ON PROPERTY AND REAL ESTATE STOCK PRICE INDEX LISTED ON IDX IN 2011-2019

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ABSTRACT

This purpose of this research is to look at the effect of exchange rates, interest rates, inflation, and GDP growth on the property and real estate stock price indexes listed on the Indonesia Stock Exchange from 2011-2019. During the period 2011-2019, the researcher focused on the property and real estate stock price indexes listed on the Indonesia Stock Exchange. The quantitative descriptive method is used in this study. This study is explanatory in nature. The population in this study is the quarterly property and real estate stock price index from 2011 to 2019. A saturated sampling technique was used to collect 36 samples. The documentation study method was used for data collection, and the research model was multiple linear regression. The results revealed that exchange rates, interest rates, inflation, and GDP growth all had a significant impact on the property and real estate stock price index. The results also show that the exchange rate, interest rate, and GDP growth have a significant negative effect on the property and real estate stock price index, whereas inflation has no and no significant effect on the property and real estate stock price index. The coefficient of determination of the hypothesis using Adjusted R² is 83.7 percent, indicating that exchange rates, interest rates, inflation, and GDP growth can explain 83.7 percent of the property and real estate stock price index, while the rest are other variables not proposed in this study.

Keywords: Exchange Rate, Interest Rate, Inflation, GDP Growth, Index Property Share and Real Estate

BACKGROUND

The capital market is critical to a country's economic growth and national development. In addition, the capital market serves as a source of funding for businesses. Fundamental analysis and technical analysis are two approaches to analyzing changes in stock prices. Fundamental analysis is a type of analysis that makes use of financial statement data.

According to Tandililin (2001:121) in Harsono, Worokinasih (2018:103), several variables, including inflation, interest rates, exchange rates, and GDP growth, influence stock price fluctuations. These macroeconomic factors will have an impact on stock prices in the capital market, either positively or negatively.

The Indonesia Stock Exchange (IDX) has nine sectoral indices, one of which is the property and real estate sector. According to Ramadani (2016:73), the property and real estate sectors are one sector that can describe a country's situation, especially its economy, whether it is in a state of development, because the property and real estate sectors are the main sectors in creating public welfare.

For the last few years, the following data is available for the Property Sector Stock Price Index, Exchange Rates, Interest Rates, Inflation, and GDP Growth:

Table 1
Phenomenon Table

	2011	2012	2013	2014	2015	2016	2017	2018	2019
JKPROP	229,25	326,55	337,00	524,91	490,93	517,81	495,51	447,75	503,88
Exchange Rate	9.068,00	9.670,00	12.189,00	12.440,00	13.795.00	13.436.00	13.548.00	14.481.00	13.901.01
Interest Rates	6,00	5,75	7,50	7,75	7,50	4,75	4,25	6,00	5,00
Inflation	3,79	4,30	8,38	8,36	3,35	3,02	3,61	3,13	2,72
GDP Growth	6,50	6,11	5,72	5,01	5,04	4,94	5,19	5,18	4,97

According to table 1, the stock price of the property and real estate sector increased rapidly from 229.25 to 524.91, but stock prices tended to fluctuate from 2014 to 2019. Table 1 also shows that there are several inflation values, exchange rates, interest rates, and GDP showing conditions that are inconsistent with stock prices in the property and real estate sectors.

According to the findings of a study conducted by Achmad Ath Thobarry titled "Analysis of the Effect of Exchange Rates, Interest Rates, Inflation Rates, and GDP Growth on the Property Sector Stock Price Index," the dollar exchange rate against the rupiah, interest inflation, and GDP growth all have an impact on the property sector stock price index. While the rupiah exchange rate has a significant positive effect on the property sector stock price index, inflation also has a significant positive effect.

According to the findings of a study conducted by Choirul Umam titled "Analysis of the Effect of Macroeconomic Variables on Stock Prices," the inflation variable has a negative and significant influence on the stock price of Real Estate and Property companies listed on the Sharia Securities List, while the GDP variable has a positive and significant influence. Meanwhile, the economic growth variable is only significant when tested simultaneously and not when tested separately.

According to the findings of Ratna Prihantini's study, "Analysis of the Effect of Inflation, Exchange Rate, ROA, DER, and CR on Stock Return," the independent variables have a significant effect on the stock returns of Real Estate and Property

companies. Inflation and exchange rates have a significant negative impact on the stock returns of real estate and property companies.

Based on the disparities in the research results, this study intends to conduct additional research on the effect of inflation, exchange of inflation, exchange rates, interest rates, and GDP on the Stock Price Index under the title "Analysis Of The Effect Of Exchange Rate, Interest Rate, Inflation, and GDP Growth On Property Share and Real Estate Stock Price Index Listed On IDX in 2011-2019."

THEORETICAL BASIS

IDENTIFICATION OF PROBLEMS

From the background description of the problem, the following issues can be drawn:

- a. The Property and Real Estate Industry is highly sensitive to changes in macroeconomic conditions, such as change in inflation, exchange rates, interest rates, and GDP Growth.
- b. Exchange rates, interest rates, and inflation are inconsistent with property and real estate index stock prices.
- c. There is GDP Growth that is not accompanied by property and real estate index stock prices.

FORMULATION OF THE PROBLEM

Based on the research background above, the writer formulates the following problems:

1. Does Exchange Rate affect the Property and Real Estate Stock Price Index listed on the IDX in 2011-2019?
2. Does Interest Rates affect the Property and Real Estate Stock Price Index listed on the IDX in 2011-2019?
3. Does Inflation affect the Property and Real Estate Stock Price Index listed on the IDX in 2011-2019?
4. Does GDP Growth affect the Property and Real Estate Stock Price Index listed on the IDX in 2011-2019?
5. Does Exchange Rate, Interest Rates, Inflation, and GDP Growth simultaneously affect the Property and Real Estate Stock Price Index listed on the IDX in 2011-2019?

STOCK PRICE INDEX

The stock price index is the movement of stock prices over time in the form of numbers, which serves as one of the indicators of investors' assessment of investment opportunities.

EXCHANGE RATE

Exchange rate is an amount of money from a certain currency that can be exchanged for one unit of another country's currency.

INTEREST RATES

Interest rates are the profit rates paid to investors based on the economic value of a given period.

INFLATION

Inflation is the process of continuously increasing the prices of goods and services in an economy due to an imbalance in the flow of goods and money.

Gross Domestic Product (GDP)

The Gross Domestic Product (GDP) of a country is the amount of goods and services produced in a year.

CONCEPTUAL FRAMEWORK

Theoretical framework is shown in the following framework:

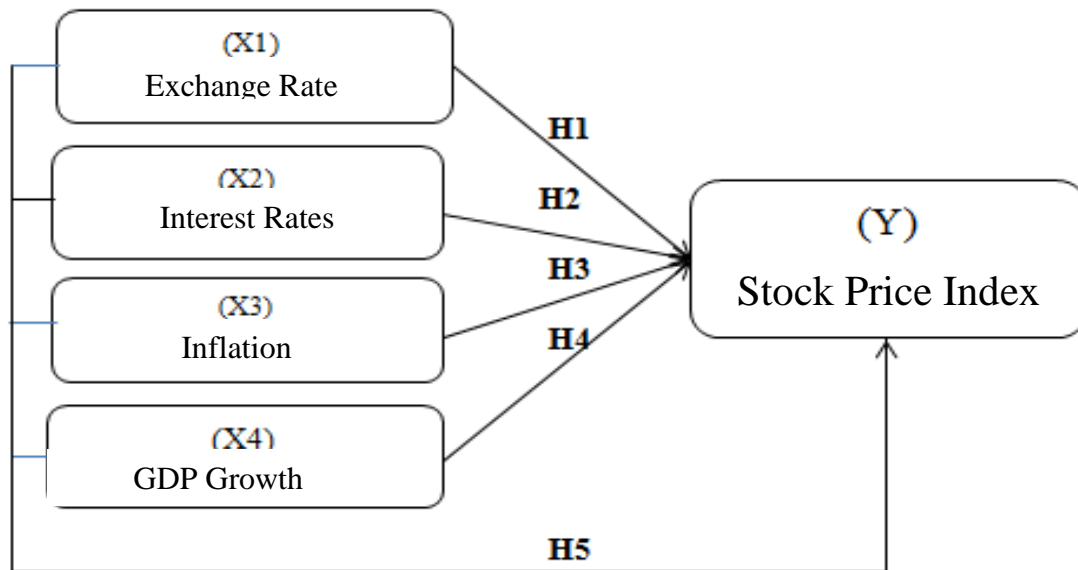


Figure 1 Conceptual Framework

HYPOTHESIS

THE EFFECT OF EXCHANGE RATE ON STOCK PRICE INDEX

Changes in one macroeconomic variable have a different impact on the stock price index, according to Mohammad Samsul (2006:202), in Novianto (2011:33), namely a stock can be positively affected while other shares are negatively affected. A sharp depreciation of the rupiah against the US dollar, for example, will have a negative impact on the stock price of an import-oriented company. Meanwhile, export-oriented businesses will benefit from the rupiah's depreciation against the US dollar.

According to Ramadani (2016:79), the weakening (decrease) of the rupiah exchange rate against the value of foreign currencies (US Dollars) has a negative impact on the equity market, making the capital market unappealing to investors, causing them to shift to the money market because it offers higher profits.

H1: Exchange Rate has an negative effect on the Property and Real Estates Stock Price Index listed on the IDX in 2011-2019 Index.

THE EFFECT OF INTEREST RATES ON STOCK PRICE INDEX

According to Novianto (2011:34), an increase in interest rates can increase the burden on companies (issuers), causing stock prices to fall further. This increase may also encourage investors to divert funds to the money market or savings and time deposits, reducing investment in the stock market and lowering stock prices even further.

According to Maslikha et al. (2017) in Ningsih and Waspada (2018:5), an increase in the BI Rate will result in an increase in bank interest rates, causing stock prices to fall, particularly in the property and real estate sectors on the IDX.

H2: Interest Rates has an negative effect on the Property and Real Estates Stock Price Index listed on the IDX in 2011-2019 Index.

THE EFFECT OF INFLATION ON STOCK PRICE INDEX

High inflation rates, according to Kewal (2012:54), are typically associated with overheated economic conditions. This means that when economic conditions cause demand for products to exceed product supply capacity, prices tend to rise. Inflation that is too high will also reduce the purchasing power of money. Furthermore, high inflation can reduce the amount of real income that investors receive from their investments.

According to Agustina (2016) in Ningsih and Waspada (2018:4), argues that the result of inflation is an increase in the cost of production and administrative burdens that must be borne by the company, so that even though the company's sales level increases, it cannot contribute to a large profit as well. so that the dividends that will be distributed to investors will certainly have an effect. In conditions of high inflation, investors are more likely to wait and choose to see the policies taken by the government in dealing with inflation problems, then take the next step.

H3: Inflation has an negative effect on the Property and Real Estates Stock Price Index listed on the IDX in 2011-2019 Index.

THE EFFECT OF GDP GROWTH ON STOCK PRICE INDEX

According to Kewal (2012:54), Gross Domestic Product (GDP) is a factor that influences changes in the stock price index. Estimated GDP will determine economic development. GDP comes from the number of consumer goods that are not capital goods. With the increasing number of consumer goods causing the economy to grow, and increasing the scale of the company's sales turnover, because society is consumptive. With the increase in sales turnover, the company's profits also increase. The increase in profits causes the company's stock price to also increase.

According to Park (1997) in Thobarry (2009: 55) which examines the relationship between macro variables, consumer prices, GDP, inflation rates, interest rates and stock returns. Found a positive influence between GDP growth and stock returns. With increasing economic performance as reflected by GDP growth, investors tend to invest more in the capital market. Increasing GDP growth can also lead to an increase in people's purchasing power, the impact of which can be felt by the stock market.

H4: GDP Growth has an positive effect on the Property and Real Estates Stock Price Index listed on the IDX in 2011-2019 Index.

RESEARCH METHODS

RESEARCH SITES

The IDX's official website, www.idx.co.id, was used to conduct the research on the Property and Real Estate index listed on the Indonesia Stock Exchange.

POPULATION, SAMPLE AND DATA DETERMINATION TECHNIQUES

In this study, the population is the property and real estate stock price index per quarter listed on the Indonesia Stock Exchange from 2011 to 2019. The property and real estate stock price index per quarter listed on the Indonesia Stock Exchange from 2011 to 2019 was used as the sample. The sample obtained from time series data per quarter from 2011 to 2019 is 36 samples. The documentation study method was used to collect data for this study.

RESEARCH DESIGN

According to Sugiyono (2016: 7), the research method used in this study is quantitative.

DATA ANALYSIS TECHNIQUE

This study analyzes data using SPSS (Statistical Product and Service Solutions) Software.

RESEARCH RESULTS AND DISCUSSION

RESEARCH RESULT

The one-sample Kolmogorov-Smirnov test used in statistical calculations shows that Asymp. Sig.(2-tailed) has a value of 0.271, indicating that the data is normally distributed because the value is greater than 0.05.

The tolerance values for each variable of professionalism, competence, independence, and audit quality are greater than 0.1, according to Tolerance and Variance Inflation Factor (VIF) values. Because each variable's VIF value is less than 10, it can be concluded that the variables do not exhibit multicollinearity.

The results of multiple linear regression analysis is in Table 2.

Table 2. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2059,128	310,104		6,640	,000
Exchange Rate	-,022	,010	-,417	-2,163	,038
1 Interest Rates	-24,047	9,341	-,249	-2,574	,015
Inflation	-,017	6,287	,000	-,003	,998
GDP Growth	-225,290	32,680	-1,267	-6,894	,000

Dependent Variable : Index Stock Price

Table 3. Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,925 ^a	,856	,837	42,55975	1,329

According to Table 3, the Adjusted R Square value obtained is 0.837, indicating that 83.7 percent of stock index price variables can be explained by exchange rate, interest rate, inflation, and GDP growth.

Table 4. F-Test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	333901,249	4	83475,312	46,085	,000 ^b
	Residual	56151,310	31	1811,333		
	Total	390052,559	35			

According to the results of simultaneous hypothesis testing (Table 4), F value > F table (46,085 > 2,68), indicating that the exchange rate, interest rates, inflation, and GDP Growth variables all affect the Property and Real Estate Stock Price Index listed on the IDX in 2011-2019.

DISCUSSION

THE EFFECT OF EXCHANGE RATE ON PROPERTY AND REAL ESTATE STOCK PRICE INDEX LISTED ON THE IDX IN 2011-2019.

According to the findings of the partial test (t test), the exchange rate has a negative and significant effect on the property and real estate stock price index. The test results show that the exchange rate variable has a significant value of 0.038 < 0.05, but t value -2.163 > t table 2.03951, so H₀ is rejected and H_a is accepted, indicating that the exchange rate variable has a partially negative and significant effect on the property and real estate stock price index listed on the Indonesia Stock Exchange from 2011 to 2019.

The findings of this study back up Luthfiana's (2018) research, "The Effect of Exchange Rates, Interest Rates, and Inflation on the Property Sector Stock Price Index Listed on the Indonesia Stock Exchange," which claims that the exchange rate (exchange rate) has a significant negative effect on property sector stock prices.

The above statement is supported by the theory advanced by several experts, as well as the findings of the research. According to Tandelilin (2007), one of the macroeconomic factors in the form of currency exchange rates (exchange rate) has been shown to have an influence on capital market investment developments.

The decline in the exchange rate of the dollar against the rupiah indicates that the Indonesian economy is improving; on the other hand, the increase in the dollar exchange rate indicates that the rupiah currency is weakening.

THE EFFECT OF INTEREST RATE ON PROPERTY AND REAL ESTATE STOCK PRICE INDEX LISTED ON THE IDX IN 2011-2019.

According to the partial test (t test) results, interest rates have a negative and significant effect on the property and real estate stock price index. The test results show that the inflation variable has a significant value of 0.015 < 0.05, but tcount -2.574 > ttable 2.03951, so H₀ is rejected and H_a is accepted, indicating that the interest rate variable has a partially negative and significant effect on the property and real estate index stock prices index listed on the Indonesia Stock Exchange from 2011 to 2019.

The study's findings back up Ramadani's (2016) research, "The Effect of Inflation, Interest Rates, and Rupiah Exchange Rates on Share Prices of Property and Real Estate Sector Companies Listed on the Indonesia Stock Exchange," which claims that interest rates have a significant negative effect on the dependent variable (stock prices).

The findings of this study are also supported by Tandelilin's (2010) theory that interest rates have an inverse meaning (*ceteris paribus*): if interest rates rise, stock prices fall. This is due to investors selling shares and switching to more profitable investments.

THE EFFECT OF INFLATION ON PROPERTY AND REAL ESTATE STOCK PRICE INDEX LISTED ON THE IDX IN 2011-2019.

According to the results of the partial test (t test), inflation has no effect and is not significant on stock prices. The test results show that the interest rate variable has a significant value of 0.998 > 0.05, but tcount -0.003 < ttable 2.03951, then H₀ is accepted and H_a is rejected, indicating that the interest rate variable has a partial effect and is not significant on the property and real estate index stock prices index listed on the Indonesia Stock Exchange from 2011 to 2019.

The findings of this study's partial test are consistent with Suryanto's (2012) research, titled "The Effect of Inflation, Interest Rates, BI Rate, and Rupiah Exchange Rate on Share Prices of Property and Real Estate Sector Companies on the Indonesia Stock Exchange," which states that inflation has no significant effect on stock prices in the property and real estate sectors, and rejects the findings of Thobarry's (2009) research.

Tandelilin (2010) proposed a theory in which a relative increase in inflation is a negative signal for capital market investors. If inflation rises, stock prices will fall, and vice versa. The findings of this study do not support the theory. According to research data, Indonesia's low inflation rate from 2016 to 2019 has not been accompanied by an increase in the property and real

estate price index. This was due to a number of factors, including the socio-political turmoil that occurred that year, the still-high credit interest rate, and the year's tight taxation.

THE EFFECT OF GDP GROWTH ON PROPERTY AND REAL ESTATE STOCK PRICE INDEX LISTED ON THE IDX IN 2011-2019.

According to the results of the partial test (t test), GDP growth has a negative and significant effect on stock prices. The test results show that the GDP growth variable has a significant value of 0.000 0.05, except when $t_{count} -6.894 > t_{table} 2.03951$, in which case H_0 is accepted and H_a is rejected, indicating that the GDP growth variable has a partially negative and significant effect on the property and real estate index stock prices index listed on the Indonesia Stock Exchange from 2011 to 2019.

The findings of the partial test in this study are supported by Ningsih's (2018) research titled "The Influence of Gross Domestic Product, Money Supply, Inflation, and BI Rate on the JII Stock Price Index for the Period 2007-2017," which states that gross domestic product has a negative and significant effect on the stock prices of the property and real estate sectors. However, this contradicts the findings of Lutfiana (2017), who found a positive correlation between GDP and stock prices in his study titled "Contribution of Inflation, Interest Rates, Exchange Rates, and Gross Domestic Product to the Share Prices of the Jakarta Islamic Index Group in Indonesia for the Period 2007-2015."

In theory, an increase in GDP is a good sign (positive) for investment, and vice versa. Increases in GDP have a positive effect on consumer purchasing power, which can lead to an increase in demand for company products. An increase in demand for the company's products will increase profit and, as a result, the stock price, or vice versa. However, in this case, the study's findings show that an increase in gross domestic product indicates the community's well-being, which leads to increased consumption of goods and services. Consumption rises, but not at the same rate as capital market investment.

CONCLUSIONS AND SUGGESTIONS

CONCLUSION

Based on the results of the research and discussion, conclusions can be drawn from research on the Analysis Of The Effect Of Exchange Rate, Interest Rate, Inflation, and GDP Growth On Property Share and Real Estate Stock Price Index as follows:

1. Exchange Rate has negative effect on Property Share and Real Estate Stock Price Index listed on the IDX in 2011-2019.
2. Interest Rate has negative effect on Property Share and Real Estate Stock Price Index listed on the IDX in 2011-2019.
3. Inflation has no effect on Property Share and Real Estate Stock Price Index listed on the IDX in 2011-2019.
4. GDP Growth has negative effect on Property Share and Real Estate Stock Price Index listed on the IDX in 2011-2019.
5. Exchange Rate, Interest Rate, Inflation, and GDP Growth simultaneously have an effect on Property Share and Real Estate Stock Price Index listed on the IDX in 2011-2019.

SUGGESTION

Some Suggestions from this study are:

1. For researchers as a reference material and add insight and to expand knowledge can be done by changing the variables studied.
2. For investors who will invest in the property and real estate index on the IDX, they should be really careful in analyzing stocks so that they get the expected profit.
3. For further researchers, it is hoped that it should increase the number of research samples and add variables that affect stock prices that are not included in this study.

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