

The Influence Of External Factors And Internal Factors On Stock Prices In The Property Sector For The 2013-2023 Period On The Indonesian Stock Exchange

¹I Putu Risky Dharma Putra Tenaya, ²Ign Oka Widana, ³Gunardi Endro

¹Master of Management, Bakrie University Jakarta, ^{2,3}Master of Management Lecturer, Bakrie University Jakarta

Article Info	ABSTRACT
Keywords: External factors (Interest rates, property capitalization value, house price index), Internal factors (DER, ROA, and NPM values), Property stock prices and IDX.	This study analyzes the effect of external factors, such as interest rates, property capitalization value, and house price index, as well as internal factors such as the value of DER (Debt Equity Ratio), ROA (Return on Assets), and NPM (Net Profit Margin), on the price of property stocks on the Indonesia Stock Exchange (IDX) during the period 2013-2023. In this study, the population in this study were property stocks totaling 85 issuers of shares that were sloping on the Indonesia Stock Exchange. And in this study to determine the sample to be used, the researchers used the simple random sampling method. The method in this study uses quantitative methods with simple random sampling techniques. In this case the sample to be used is as many as 20 samples of property stocks listed on the IDX for the period 2013-2023. The data used is secondary data in the form of financial statements. the analysis used is descriptive statistical analysis technique, time series method, multiple linear regression analysis, classical assumption test, Multivariate Test using SPSS. The results showed, ROA, DER, house price index and interest rates had a positive and significant effect on property stock prices for the period 2013-2023 while the capitalization value of the property had no significant effect on stock prices. The negative coefficient direction explains that an increase in market capitalization will result in a decrease in stock prices on the IDX for the 2013-2023 period. The results of this study show an Rsquare value of 0.580 or 58% of the influence of the independent variable (x) on the dependent variable (y) while 42% of the stock price can be explained by other variables. The implication is that investors and market participants can consider information about relevant external and internal factors in the property market. This research provides important contributions and contributions in understanding the dynamics of the property stock market in Indonesia and can be a reference for further researchers in this field.
This is an open access article under the CC BY-NC license 	Corresponding Author: I Putu Risky Dharma Putra Tenaya Master of Management, Bakrie University Jakarta riskydharma97@gmail.com

INTRODUCTION

The property industry has become one of the main sectors in the global economy, including on the Indonesia Stock Exchange (BEI). In recent years, the property sector in Indonesia has experienced significant growth. This is reflected in the increase in property capitalization

and in the technology sector it was -42.61%. In this case, the energy sector is the most dominant area of interest to investors.

One of the factors that young investors pay attention to when investing is information regarding interest rates. In general, high interest rates provide a negative signal for stock prices (Maria, Topowijono, Sri. 2018). High interest rates cause investors to withdraw their investments in shares, especially in the property sector, and transfer them to other investments in the form of savings or time deposits. The Governor of Bank Indonesia has established a new policy regarding the interest rate reference from the BI Rate to the BI 7-Days (Reserve) Repo Rate. This policy came into effect on 19 August 2016 in relation to inflation in Indonesia. This policy reference is also a new reference for encouraging financial market deepening and maintaining price stability.

The condition of the residential market in Indonesia is indicated by an increase in prices which can be measured through the IHPR. Furthermore, supply and demand conditions in the housing market are reflected through the interaction between short-term and long-term house price interest rates. Thus, this research aims to examine the relationship between IHPR, GDP and interest rates. Therefore, based on the background, the researcher wants to raise the title "The Influence of External Factors and Internal Factors on Stock Prices in the Property Sector for the 2013-2023 period on the Indonesia Stock Exchange" which aims to find out how much influence interest rates, property capitalization value, house price index have. , the value of DER, ROA, NPM on property share prices so that the results can provide information regarding the development of property shares in Indonesia

METHODS

Type of research in this research uses descriptive quantitative research. Quantitative research is research based on the philosophy of positivism, used to research certain populations or samples, this data collection uses research instruments, data analysis is quantitative/statistically determined (Sugiyono, 2018). In this research, the population taken was property shares of 85 stock issuers listed on the Indonesian Stock Exchange. To determine the sample to be used, the researcher used a simple random sampling method. To determine the sample to be used, the researcher used a simple random sampling method. In this case, the sample that will be used is 20 samples of property shares. The data source used in this research is secondary data taken via the IDX (Indonesia Stock Exchange) website. The data analysis method in the research uses multivariate regression analysis with the help of SPSS software.

RESULTS AND DISCUSSION

Validity Test

Testing the validity of each construct indicator according to Ghazali (2014), an indicator is said to have good validity if its value is greater than r table (0.221) (Ghozali, 2014). It can be concluded that all items are declared valid because they have a calculated r value in the corrected item column $> r$ table. The following is a table of validity test results:

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Indeks_Harga_rumah	22858.137848	1212514804.066	.500	.883
Suku Bunga	22858.266849	1212515803.269	.476	.883
Kapitalisasi	16006.046211	1211432178.177	.894	.969
Harga_properti	11926.730974	91839417.761	.313	.459
DER	22854.119109	1212508055.117	.323	.983
ROA	22857.800185	1212515692.714	.347	.883
NPM	22857.558393	1212515213.127	.613	.883
Harga_saham	17790.293603	1102189967.272	.830	.529

Reliability Test

When conducting reliability testing, the desired Cronbach's alpha value must be more than 0.6 and the composite reliability value must be more than 0.7 (Jogiyanto, 2013). The composite reliability value shows how well a variable is reliable, while the Cronbach's alpha value is the lowest measure of reliability of the variable. It is stated that the Cronbach alpha value of 0.821 can be categorized as very strong because it is in the range 0.8 – 1.00. The following is a table of reliability test results:

Reliability Statistics	
Cronbach's Alpha	N of Items
.821	8

Multiple Linear Regression Test

Based on the data that has been described, the next section will examine the influence of independent variables which are divided into internal factors (ROA, NPM, DER) and external factors (house price index, interest rates, property prices and capitalization) on stock prices. The test was carried out using the common effect method in the form of fixed effect and random effect.

Fixed Effects

In this model has an intercept that may change for each individual and time, where each cross section unit is fixed in the time series. The equation of the model in Gujarati (2012) is as follows:

$$Y_{it} = \alpha_1 + \alpha_2 D_n + \dots + \alpha_3 X_{3it} + \dots + \alpha_n X_{nit} + \epsilon_{it}$$

As for the results from the fixed model linear regression output on internal factors as follows:

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-6427.018	454.198		-14.150	.000
	dummy	15696.900	469.481	.749	33.435	.000
	DER	-4.001	24.819	-.004	-.161	.872
	ROA	431.972	175.531	.055	2.461	.014
	NPM	89.871	166.484	.012	.540	.589

a. Dependent Variable: Harga_saham

Based on this table, a regression equation can be obtained to determine the factors in predicting stock prices as follows:

$$Y = -6427.018 + 15696.900D1 - 4.001X1 + 431.972X2 + 89.871X3 + 454.198$$

The results of the regression equation show that the regression coefficients for the ROA and NPM variables have a positive sign, while the coefficient for the DER variable has a negative sign. This shows that an increase in ROA and NPM will increase share prices, while conversely an increase in DER will reduce share prices. The results of the fixed model linear regression output on external factors are as follows:

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	-6748.185	1225.983		-5.504	.000
	dummy	15663.512	470.600	.748	33.284	.000
	Indeks Harga rumah	700.206	1073.910	.015	.652	.515
	Suku Bunga	-881.695	2308.788	-.009	-.382	.703
	Kapitalisasi	.080	.153	.012	.526	.599
	Harga properti	.006	.006	.019	.866	.387

a. Dependent Variable: Harga_saham

Based on this table, a regression equation can be obtained to determine the factors in predicting stock prices as follows:

$$Y = -6748.185 + 15663.512D1 + 700.206X4 - 881.695X5 + 0.080X6 + 0.006X7 + 1225.983$$

The results of the regression equation show that the regression coefficient for the house price index, capitalization and property price variables has a positive sign, while the coefficient for the interest rate variable has a negative sign. This shows that an increase in the house price index, capitalization and property prices will increase share prices, while conversely an increase in interest rates will reduce share prices.

Random Effects

This model has similarities with the previous model, namely fixed effects, where the individual and time dimensions are also included, but the difference between this model and fixed effects is that in the estimation, an error term is also included because in assuming the error term is related to the individual and time dimensions, the equation is written in Gujarati. (2012) are as follows:

$$Y_{it} = 0 + 1 X 1_{it} + 2 X 2_{it} + 3 X 3_{it} + \dots + n X n_{it} + e_{it}$$

Where e_{it} is the error term which is a combination of time series and cross section. The results of the linear random model regression output on external factors are as follows:

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5697.295	1757.167		3.242	.001
Indeks_Harga_rumah	898.890	1616.185	.019	.556	.578
Suku_Bunga	-2103.718	3474.233	-.020	-.606	.545
Kapitalisasi	-.095	.230	-.014	-.416	.678
Harga_properti	.009	.010	.031	.905	.366

a. Dependent Variable: Harga_saham

Based on this table, a regression equation can be obtained to determine the factors in predicting stock prices as follows:

$$Y = -5697.295 + 898.890X_4 - 2103.718X_5 - 0.095X_6 + 0.009X_7 + 1757.167$$

The results of the regression equation show that the regression coefficient for the house price index variable and property prices has a positive sign, while the coefficient for the interest rate and capitalization variables has a negative sign. This shows that an increase in the house price index and property prices will increase share prices, while conversely an increase in interest rates and capitalization will reduce share prices. The results of the linear random model regression output on internal factors are as follows:

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	5057.163	448.237		11.282	.000
DER	-45.053	37.388	-.041	-1.205	.229
ROA	264.829	264.646	.034	1.001	.317
NPM	46.527	251.100	.006	.185	.853

a. Dependent Variable: Harga_saham

Based on this table, a regression equation can be obtained to determine the factors in predicting stock prices as follows:

$$Y = -5057/163 - 45.053X_1 + 264.829X_2 + 46.527X_3 + 448.237$$

The results of the regression equation show that the regression coefficients for the ROA and NPM variables have a positive sign, while the coefficient for the DER variable has a negative sign. This shows that an increase in ROA and NPM will be able to increase share

prices, whereas on the contrary an increase in DER will reduce share prices. The results of the equation formed from the results of regression calculations which are intended to determine the influence of the independent variables on the dependent variables above, further require further statistical testing. further to determine the validity of the model that has been formed. The tests that will be carried out to determine the validity of the model include each partial coefficient, overall testing of the independent variables and testing of the coefficient of determination (adjustedR2).

Based on tests using the common effect, it can be concluded that internal factors (ROA, NPM, DER) have the most influence compared to external factors (stock price index, capitalization, interest rates and property prices) because the test results have F statistics > F table. Apart from comparing data on external and internal factors, researchers further examined which indicators influence stock prices in the property sector. Based on the data that has been described, the next section will examine the influence of the independent variables, namely ROA, NPM, DER, house price index, property prices and capitalization on stock prices.

		Coefficients ^a		
		Unstandardized Coefficients		Standardized Coefficients Beta
Model		B	Std. Error	
I	(Constant)	5856.092	1783.946	
	Indeks_Harga_saham	847.194	1620.050	.018
	Suku Bunga	23.218	3478.376	-.023
	Kapitalisasi	-.113	.230	-.017
	Harga_properti	.918	.010	.032
	DER	-48.064	37.504	-.043
	ROA	265.131	265.630	.034
	NPM	52.037	251.467	.007

a. Dependent Variable: Harga_saham

Based on the table above, a regression equation can be obtained to determine the factors in predicting stock prices as follows:

$$Y = 5856.092 + 847.194x_1 + 23.218x_2 - 0.113x_3 + 0.918x_4 - 48.064x_5 + 265.131x_6 + 52.037x_7 + 1783.946$$

The results of the regression equation show that the regression coefficients for the ROA, DER and capitalization variables have a positive sign, while the coefficients for the NPM and IHS variables have a negative sign. This shows that an increase in ROA, DER and market capitalization will increase share prices, while conversely an increase in NPM and IHS will reduce share prices. The results of the equation formed from the results of regression calculations which are intended to determine the influence of the independent variables on the dependent variables above still require further statistical testing to determine the validity of the model that has been formed. The tests that will be carried out to determine the validity

of the model include each partial coefficient, overall testing of the independent variables and testing of the coefficient of determination (adjusted R²).

Hypothesis Testing

The t statistical test is used to determine whether or not there is an influence of each independent variable individually on the dependent variable which is tested at a significance level of 0.05. If the probability t value is smaller than 0.05 then H_a is accepted and H₀ is rejected, whereas if the probability t value is greater than 0.05 then H₀ is accepted and H_a is rejected.

Model	Coefficients ^a		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
(Constant)	5856.092	1783.946		3.283	.001
Indeks Harga rumah	847.194	1620.050	.018	5.229	.011
Suku_Bunga	23.218	3478.376	-.023	6.673	.047
Kapitalisasi	-.113	.230	-.017	-.490	.246
DER	-48.064	37.504	-.043	12.815	.003
ROA	265.131	265.630	.034	9.981	.031
NPM	52.037	251.467	.007	.207	.361

a. Dependent Variable: Harga_saham

Hypothesis 1: Effect of ROA on stock prices.

Based on the results of calculations using the SPSS program, the t value was 9,981 with a probability value of 0.031, meaning it was 0.05 smaller. Thus it can be concluded that ROA has a significant effect on share prices. The positive direction of the coefficient explains that an increase in ROA will result in an increase in share prices. The influence of NPM on share prices. Based on the results of calculations using the SPSS program, the t value was 0.207 with a probability value of 0.361, meaning it was greater than 0.05. Thus it can be concluded that NPM does not have a significant effect on share prices.

Hypothesis 2: Effect of DER on stock prices.

Based on the results of calculations using the SPSS program, the t value was 12,815 with a probability value of 0.003, meaning it was greater than 0.05. Thus it can be concluded that DER has a significant effect on share prices. The Effect of the House Price Index on Stock Prices. Based on the results of calculations using the SPSS program, the t value was 5,229 with a probability value of 0.011, meaning it was smaller than 0.05. Thus, it can be concluded that the house price index has a significant effect on stock prices.

Hypothesis 3: Effect of capitalization on stock prices

Based on the results of calculations using the SPSS program, the t value was -.490 with a probability value of 0.246, meaning it was greater than 0.05. Thus it can be concluded that market capitalization does not have a significant effect on share prices. The direction of the negative coefficient explains that an increase in market capitalization will result in a decrease in share prices

Hypothesis 4: Effect of Interest Rates on stock prices

The regression coefficient value is 0.672 and the t value is 6.673 which is greater than t table 1.656. The significance level is 0.047 which is smaller than 0.05. This shows that the BI Interest Rate has a positive and significant effect on share prices. The influence of property prices on share prices. The calculated t value of 9,489 is greater than t table 1.656. The significance level is 0.034 which is smaller than 0.05. This shows that BI property prices have a positive and significant effect on share prices. It can be concluded that the capitalization and NPM variables do not have a significant effect on share prices because the sig value is > 0.05. Meanwhile, the variables house price index, interest rates, property prices, DER, and ROA have a significant effect on stock prices because the sig value is <0.05

CONCLUSIONS

Based on observations of the influence of external factors (capitalization, house price index, property prices), and internal factors (NPM, DER and ROA) on share prices in the property sector for the 2013-2023 period, it was concluded that: (1) Based on tests using the common effect, it was concluded that internal factors (ROA, NPM, DER) have the most influence compared to external factors (stock price index, capitalization, interest rates and property prices) because they have test results of F statistics > F table. (2) ROA has a significant effect on share prices. The positive direction of the coefficient explains that an increase in ROA will result in an increase in share prices. (3) NPM does not have a significant effect on share prices. (4) DER has a significant effect on share prices. (5) the house price index has a significant effect on stock prices. (6) The property capitalization value does not have a significant effect on share prices. The direction of the negative coefficient explains that an increase in market capitalization will result in a decrease in share prices. (7) Interest rates have a positive and significant effect on share prices. (8) Property prices have a positive and significant effect on share prices

REFERENCE

- Andriyani, I., & Armereo, C. (2016). Pengaruh suku bunga, inflasi, nilai buku terhadap harga saham perusahaan indeks LQ45 yang terdaftar di Bursa Efek Indonesia (BEI). *Orasi Bisnis: Jurnal Ilmiah Administrasi Niaga*, 15(1).
- Astuti, A. P., & Setiawati, E. (2024). Pengaruh EPS, ROA, DER Dan PBV Terhadap Harga Saham: Studi Kasus Pada Perusahaan LQ 45 Yang Terdaftar Di Bursa Efek Indonesia Tahun 2018-2021. *Jurnal Rimba: Riset Ilmu manajemen Bisnis dan Akuntansi*, 2(2), 112-126.

- Britney, B. (2022). Analisis Faktor Internal dan Eksternal Terhadap Harga Saham Yang Terdaftar Di Bursa Efek Indonesia (Doctoral dissertation, Prodi Akuntansi).
- Britney, B., & Wage, S. (2022). Analisis Faktor Internal dan Faktor Eksternal terhadap Harga Saham yang Terdaftar di Bursa Efek Indonesia. *eCo-Buss*, 4(3), 382- 396.
- Irdiana, S. (2018). Determinan Harga saham Perusahaan Yang Terdaftar Di Bursa Efek Indonesia. *Wiga: Jurnal Penelitian Ilmu Ekonomi*, 8(1), 45-56.
- Kartikawati, Y. (2021). Efek Profitabilitasleverage Dan Likuiditas Terhadap Return Saham Syariah Sektor Keuangan Di Indonesia. *Ar-Ribhu: Jurnal Manajemen dan Keuangan Syariah*, 2(2), 300-315.
- HM, Jogiyanto (2019) Teori Portofolio dan Analisis Investasi, Edisi II, BPFE – UGM. Yogyakarta
- Kuncoro, Mudrajat. (2020). Metode Kuantitatif: Teori dan Aplikasi untuk Bisnis dan Ekonomi. Yogyakarta : UPP-AMP YKPN Madura
- (2019) International Corporate Financial, Edisi Terjemahan Salemba Empat Jakarta
- Mamduh. M. Hanafi dan Abdul Halim, 2022, Analisis Laporan Keuangan, UPP AMK YKPN, Yogyakarta