

THE EFFECT OF STOCK RISK, PROFITABILITY AND MACROECONOMICS FACTORS ON STOCK PRICES OF BANKING COMPANIES LISTED ON IDX

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ABSTRACT

This research aims to obtain valid evidence regarding the influence of stock risk, profitability ratios, inflation, and interest rates on share prices of banking sub-sector companies listed on the Indonesia Stock Exchange for the period 2018 to 2022. Stock risk is proxied by beta, profitability ratio is proxied by Earning per Share (EPS), inflation is proxied by the Indonesian annual inflation rate and interest rates are measured by the BI-7 Day Reverse Repo Rate (B17DRR). This research used a descriptive research design and used quantitative data. The data in this study was extracted from official sources. The research sample was selected using purposive sampling technique. The selected research sample was 39 out of 47 banking sub sector companies listed consistently on the Indonesia Stock Exchange in the period 2018 to 2022 and produced 197 observation data. Data analysis used panel data regression which was processed using EViews 12 software. A series of tests carried out included multicollinearity tests, partial t tests and coefficient of determination tests. The research results show that earnings per share have a positive influence on share prices. Meanwhile, stock beta, inflation and interest rates have a negative influence on share prices in banking sub sector companies listed on the Indonesia Stock Exchange in the period 2018 to 2022.

Keywords: stock risk, earning per share, inflation, interest risk, stock prices

1. INTRODUCTION

The economic development of a company certainly cannot be separated from microeconomic and macroeconomic factors. Supported by the intense competition between companies at this time, a differentiating or differentiation factor for the Company is an increase in the Company's performance. The banking sector is one of the sectors that is of interest to investors in their capital investment decisions. This is because Indonesian people still use services from the financial sector to meet their needs in daily life. The role of the banking sector is very much needed in facing the era of free markets and globalization where banking is an agent of development which has the function of managing funds including saving and distributing them in the form of loans or credits to the public. So, in this case banking which acts as a supporting sector is required to have superior performance standards compared to other sectors. The demands of banks as the main sector in managing funds give rise to various risks on a small to large scale. According to Dyatmiko (2019) one of the risks of the banking industry is the percentage of uncertainty in estimating a result in the future.

According to Kurniasanti and Musdholifah (2018) financial difficulties experienced by a company are influenced by internal and external variables. Internal variables are factors that occur within the company itself or what can usually be called microeconomics. The microeconomic factors in this research are stock risk and profitability ratios. One of the internal factors that investors consider and assess regarding the value and condition of the company and is related to investment decisions is stock risk. Before investing capital in a company, investors usually must look at

several risks that will be accepted from the company. The risk in investing can of course receive influence from anywhere, in this case influence from outside the company or within the company itself. A study on the impact of systematic risk on stock prices by Duhita et al. (2019) explain that systematic risk has a positive and significant impact on stock prices. This differs from the study of Khatijah & Mursidah (2023), who found that systematic risk has no effect on stock prices. The explanation for this is the fact that investors do not consider systematic risk movements when they are influenced by conditions outside the company's control.

Ang (in Laras Auditria P., et al, 2022) believes that the success of a company in generating profits can be shown by the profitability ratio. Through profitability ratios, shareholders can assess the condition of a company's management through the profits earned by the company in a certain period. A study conducted by Herlini, Suhendro, and Wijayanti (2021) revealed that the stock prices of construction companies listed on the Indonesia Stock Exchange were influenced positively by profitability, measured by earnings per share, from 2013 to 2019 is shown to be influential. A study conducted by Megawati Elizabeth P. (2023) observed significant impact of earnings per share on price fluctuations of stocks of banking sector firms listed on IDX between 2018 and it turned out that there was no impact.

Macroeconomics is an economic science that studies the economy as a whole. Macroeconomic indicators that are often associated with capital markets are fluctuations, interest rates, inflation, rupiah exchange rate and GDP growth (Kewal, 2012). The macroeconomic variables that will be used in this research are inflation and interest rates. Sukirno (2012) states that inflation is a process in the economy in the form of an increase in prices. This price increase had an impact on reducing people's purchasing power which also had an impact on reducing sales for the company. A decrease in the company's profit level can increase investors' doubts about investing in the company. So, this can also influence the company, namely a decrease in share prices. The research results of Felicia et al. (2023) state that inflation does not have a significant impact on the stock prices of companies in the banking sector. Several research articles published in Wibowo & Aminda (2021) indicate that the macroeconomic factor of inflation is highly significant and contributes to IHSG fluctuations.

An increase in interest rates will attract the attention of investors to invest their capital in the form of company deposits in the hope of getting the desired profit. The level of risk and the appropriate level of profit from these deposits can be a reason for investors to switch from the capital market. This will have a negative impact on the company where there is a significant decline in the company's value in the capital market. Research conducted by Asyuratama (2018) states that macroeconomic factors, namely inflation and interest rates, have an influence on banking sector share prices both partially and simultaneously. According to Asyuratama (2018) research, the impact of inflation and interest rates on stock prices in the banking industry is a significant aspect of macroeconomic factors. A study by Limor et al. (2019) found that the BI benchmark interest rate not simultaneously affect the stock prices of real estate companies that conducted initial public offerings (IPO) from 2018 to 2022.

Based on the background that has been described and the dynamic research results, the researcher is interested in conducting further research about: The Influence of Internal Factors and External Factors on Share Prices of Banking Subsector Companies.

Signalling theory

This theory was first put forward by Spence in 1973 with the definition as a company's efforts to provide information to external parties who have the desire to invest so that they can get an idea of the problems they are experiencing. Signal theory can be used by company management to provide company information to investors in an exclusive and actual manner that cannot be found by external parties. So through this theory, investors can find out the condition of the company and can also provide guidance to investors in determining their investment decisions.

Portfolio theory

Markowitz (1927:32) stated that portfolio formation can be used to measure and consider the risks and returns that will be obtained in the form of a formal framework. Portfolio theory relates to investing capital in different instruments or subjects so that investors can get the expected profits but with minimal risk.

Stock Prices.

Priantono, Hendra & Anggraeni in (Partomuan, 2021) define share prices as an important factor from an investor's perspective because share prices can be used as a measure of the success of an issuer in running its business or compared with other issuers. Share prices are one of the important aspects of a company that can provide investors or outside parties with an idea of the company's condition in response to existing influences from both microeconomic and macroeconomic factors.

Systematic Risk.

Irham Fahmi in (Maulita & Syamsudin, 2020) also defines risk as a situation in the future that shows uncertainty based on decisions taken in the present. The company's internal conditions related to finances can indicate the state of the company. If the company has a stable financial condition, then the difficulties in developing its business will not be too great and vice versa.

Earning per Share.

Darmadji and Fakhruudin (2006) argue that Earning per Share (EPS) is a profitability ratio that provides information about profits or returns based on each share in circulation. This shows that if the EPS value increases or is high, then the profit or profits received by the company will also increase and the higher the amount of profits that will be distributed to shareholders.

Inflation.

M. Natsir in (Savira, et al., 2023) defines inflation as a tendency towards prices of goods and services that move conventionally and continuously. An increase in prices that occurs on an item (even in a large percentage) but is not continuous over a period cannot be said to be inflation.

Interest Rate.

Fadillah and Huda (2022) states that the principal is the amount of the loan, while the percentage of interest that must be paid as compensation for services within a certain period which is calculated from the principal amount of the debt is called the interest rate.

The effect of Stock Risk on Stock Prices.

According to Purwanti and Nurastuti (2020), a company's stock price inconstancy can be affected by systematic risk. Hilmi et al. (2019) Investors' evaluations are impacted by an increase in systematic risk, which results in decreased demand for stocks. This drop-in of demand can also cause the price of outstanding shares for a company to drop. Stock risk is usually always related

to the level of return achieved. Normally, the higher the expected return, the higher the stock risk. The existence of stock risk as expressed by an issuer or company is a natural consideration for investors. Although stocks promise high returns, their high risk naturally makes investors question their investment decisions.

H1: Stock risk has a negative effect on stock prices.

The effect of Profitability Ratio on Stock Prices.

According to Herlini, Suhendro, & Wijayanti (2021), a company that can distribute profits to shareholders and has boosted corporate profits gives investors greater confidence in their ability to invest in them. It is said that it has the effect of increasing. Through this EPS, investors can get an idea of the condition of the company, the higher the profit in a company, the higher the EPS in that company. Through this EPS, investors can assess the performance and management of a company and use it as a guide in determining the investment decisions they will take.

H2: Profitability has a positive effect on share prices.

The effect of Inflation on Stock Prices.

Crismanto (2017) states that high inflation rates affect the weakening of local economies. The continuous rise in commodity prices results in higher production costs, which affects demand and reduces people's fiscal purchasing power. An increase in prices will have an impact on consumer buying interest which will influence a decrease in production activities resulting in a decrease in profits or profits for the company. Company profits will describe the condition of the company itself.

H3: Inflation has a negative effect on stock prices.

The effect of Interest Rate on Stock Prices.

Dari, Effendy & Astuti's (2022) research revealed that stock prices are significantly influenced by interest rates. The economy is slowed down by high interest rates. An increase in interest rates can have an impact on investor's considerations in choosing the financial instruments that will be used to make their investments. Interest rates that are higher than the rate of return on company shares will give investors doubts about investing in company shares. This is because deposits provide a lower investment risk compared to shares. Investors will switch to deposits if the rate of return obtained is higher than shares supported by lower investment risks.

H4: Interest rates have a negative effect on stock prices.

Based on the framework described above, the research model that will be used in this research is as follows:

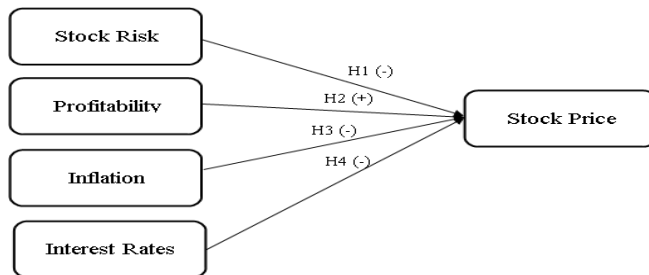


Figure 1. Analytical Framework

2. RESEARCH METHOD

In this research, the researcher used a quantitative descriptive research design with the aim of obtaining a systematic explanation of a phenomenon and knowing the characteristics of the subjects studied based on numbers. A quantitative descriptive research approach is utilized to explore the impact of an independent variable on a dependent variable through measurement. Thus, this examination employs various techniques, such as partial t-test and R-squared coefficient of determination test.

The data used in this research was panel data of 47 banking sub-sector companies were listed on the Indonesian stock exchange in 2018-2022. The research sample was determined using purposive sampling technique. The criteria used in this research are:

- a. Banking subsector companies listed continuously on the Indonesia Stock Exchange in the 2018-2022 period.
- b. Banking companies that present financial reports in the 2018-2022 period.
- c. Banking companies that have the data needed in this research.

Thus, there are 39 companies with 195 data that match the predetermined research criteria. The object of this research is stock price as the dependent variable and there is stock risk which is proxied by stock beta, profitability ratio which is proxied by earnings per share, inflation, and interest rates as independent variables. Based on the description of the research variables above, instruments can be determined that can be used to measure each research variable, as follows:

Table 1. Operational Variables

Variable	Size	Scale	Source
Share Price	Closing share price on December 31 in the 2018-2022 period.	Ratio	https://www.idx.co.id/id
Stock Risk	$\beta \text{ (Beta)} = \frac{n \sum Rm^2 Ri - \sum Rm \sum Ri}{n \sum Rm^2 - (\sum Rm)^2}$	Ratio	(Natsir et al., 2023)
Earning per Share	$\frac{\text{Earning After Tax}}{\text{Number of Shares Outstanding}}$	Ratio	https://www.idx.co.id/id
Inflation	Inflation rate in December in the 2018-2022 period.	Ratio	www.bi.go.id
Interest Rates	WITH 7Days Reverse Repo Rate December during the 2018-2022 period.	Ratio	www.bi.go.id

The research data was processed using E-views 12 software. The data tests carried out were multicollinearity tests, partial tests, and coefficient of determination tests.

Data analysis Methods

According to Mediawati et al. (2018), the classical regression assumptions that are satisfied influence the regression model that produces the parameter values of the estimated model. To demonstrate the conformity of research data to certain assumptions, classical hypothesis testing is employed. This study uses only the multicollinearity test as opposed to the classical acceptance. Multicollinearity tests are used to determine the degree of correlation between independent variables in a multiple regression model.

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Panel data is utilized in this research. To analyze time series and cross-sections of firms in the banking subsector, panel data regression is employed for successive points in time. The timeframe of 5 years is 2018 to 2022. The Chow test, Hausman test and Lagrange multiplier test are used to select the appropriate regression model.

After performing multicollinearity tests and estimating the regression model, the next step is to test the hypotheses. This study uses the t-test to determine the influence of independent variables on the dependent variable separately, and the R-squared coefficient of determination test to express the magnitude of the influence contribution between the independent and dependent variables.

3. RESULT AND DISCUSSION

Data analysis assumptions

Multicollinearity test

Figure 1. Multicollinearity Test
 Source: E-views 12

	EPS	BETA	INFLATION	INTEREST_RATE
EPS	1,000	0,122	0,118	0,083
BETA	0,122	1,000	0,144	0,188
INFLATION	0,118	0,144	1,000	0,704
INTEREST_RATE	0,083	0,188	0,704	1,000

Based on the table above, the results of the multicollinearity test carried out with E-Views 12 software, it was found that the level of correlation between variables did not exceed 0.8. So, based on the results of the multicollinearity test that has been carried out, the relationship between variables in this study does not have a multicollinearity problem.

Regression Model Estimation

Chow Test

Figure 2. Chow Test
 Source: E-views 12

Effect Test	Statistic	Prob.
Cross-section_F	5,785	0,000
Cross-section_Chi-square	174,444	0,000

Based on the Chow test results above, the probability value of the cross-section is $0.000 \leq 0.05$ and the probability value of the Chi-square cross-section is $0.000 \leq 0.05$. So, it can be concluded that the regression model that is suitable for use using the Chow test is **Fixed Effect Model (FEM)**.

Hausman test

Based on the Hausman test that has been carried out, the probability value for the random cross-section is $0.0559 \leq 0.05$. So, it can be concluded that the appropriate regression model used in this research is **Random Effect Model (REM)**.

Lagrange Multiplier Test

Figure 4. Lagrange Multiplier Test
 Source: E-views 12

	Cross-section	Time	Both
Breusch-Pagan	79,004	2,267	81,272
	(0,000)	(0,1321)	(0,000)

Based on the Lagrange multiplier testing table that has been carried out above, the results obtained in the Breusch-pagan line produce a probability value for both of $0.000 < 0.05$. So, it can be concluded that the panel data regression model that is most suitable for use in this research is **Random Effect Model (REM)**.

Partial Test (t-test)

Partial test or t-test uses probability values. The probability value for each variable produces a significance level of 5% or $\alpha = 0.05$. If in the test results the probability value is < 0.05 , it can be interpreted that the independent variable in the research has a significant influence on the dependent variable. Meanwhile, if the probability value in the test shows a value > 0.05 , it can be interpreted that the independent variable does not have a significant influence on the dependent variable.

Figure 5. Partial test on Stock Price
 Source: E-views 12

Variable	Coefficient	Prob.
EPS	8,530	0,0002
BETA	-1.225,635	0,0068
INFLATION	-33,813	0,1973
INTEREST_RATE	-107,643	0,0871

The Effect of Stock Risk on Stock Prices

Based on the results of the Partial Test (t-Test) that has been carried out, the probability value shown in the Stock Risk variable which is proxied by the stock Beta is 0.0068 with a value coefficient amounting to -1225,635. The probability value is $0.0068 < 0.05$, indicating that H1 is accepted. Based on this, it can be concluded that stock risk has a negative and significant influence on the share prices of banking subsector companies listed on the Indonesia Stock Exchange in 2018-2022.

The Effect of Profitability Ratios on Share Prices

Based on the results of the Partial Test (t-Test) which was carried out on the second hypothesis, the probability value shown in the earnings per share variable is 0.0002 with a coefficient value of 8.529821. The probability value which shows the number $0.0002 < 0.05$ indicates that the H2 results are accepted. So, it can be concluded that Earning per Share has a positive and significant influence on the share prices of banking subsector companies listed on the Indonesia Stock Exchange in 2018-2022. This is because in earnings per share the profit that investors will receive from purchasing each share of the company is stated. The higher the level of profit per share, the more it will contribute to an increase in share prices.

The Effect of Inflation on Stock Prices

Based on the Partial Test (t-test) which has been carried out on the third hypothesis, the probability value contained in the inflation variable shows a number of 0.1973 with a coefficient value of -33.81250. The probability value shows the number $0.1973 > 0.05$ stated that the results of H3 were rejected. So, it can be concluded that inflation has a negative and insignificant influence on the share prices of banking subsector companies listed on the Indonesia Stock Exchange in 2018-2022.

The Effect of Interest Rates on Stock Prices

Based on the Partial Test (t-test) which was carried out on the fourth hypothesis, the probability value contained in the interest rate variable shows a figure of 0.0871 with a coefficient value of -107.6430. The probability value which shows the number $0.0871 > 0.05$ states that H4 is rejected. So, it can be concluded that interest rates have a negative and insignificant influence on share prices of banking subsector companies listed on the Indonesia Stock Exchange in 2018-2022.

Coefficient of Determination Test

Based on the r-square coefficient test that was carried out, it was found that the adjusted r-square value was 0.307609. So, it can be concluded that the independent variables in this research, namely Earning per Share (EPS), Stock Beta, Inflation, and Interest Rates, have a contribution of 30.76% in explaining their contribution to the dependent variable, namely Share Prices in banking company subsector companies listed on the Stock Exchange. Indonesian Securities for the 2018-2022 period. Meanwhile for 69.24%

4. CONCLUSIONS AND SUGGESTIONS

Based on the research results above, it can be concluded that:

- a. Stock risk, which is proxied by stock beta, has a negative and significant influence on the share prices of banking sub-sector companies listed on the Indonesia Stock Exchange in 2018-2022.
- b. The profitability ratio, which is proxied by earnings per share (EPS), has a positive and significant influence on the share prices of banking sub-sector companies listed on the Indonesia Stock Exchange in 2018-2022.
- c. Inflation has a negative and insignificant influence on share prices of banking sub-sector companies listed on the Indonesia Stock Exchange in 2018-2022.
- d. Interest rates have a negative and insignificant influence on share prices of banking sub-sector companies listed on the Indonesia Stock Exchange in 2018-2022.

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REFERENCES

- Adyana, , D. M. (2020). *Manajemen Investasi dan Portofolio*.
Darmadji, T. a. (2006). *Pasar Modal di Indonesia Pendekatan Tanya Jawab*. Jakarta: Salemba Empat.

- Dyatmiko, R. (2019). Dampak Fundamental Dan Risiko Sistematis Terhadap Harga Saham Perbankan Indonesia. *Scientific Journal Of Reflection: Economic, Accounting, Management and Business*, 2(4), 441-450.
- Fadillah, & Huda, N. (2022). Pengaruh Suku Bunga BI dan Inflasi Terhadap Harga Saham. *Jurnal Manajemen*, 14(3), 598-606.
- Ilyas, S. R. (2022, September). Pengaruh Indikator Makroekonomi Terhadap Harga Saham Perusahaan (Studi Pada Perusahaan Yang Tercatat Dalam Indeks LQ45). *Jurnal Ekonomi Manajemen Sistem Informasi*, 4(1), 93-105.
- Maulita, D., & Syamsudin. (2020). Pengaruh Profitabilitas Dan Resiko Keuangan Terhadap Harga Saham (Studi Kausal Pada PT XL Axiata Tbk). *Jurnal Manajemen*, 10(2), 137-148.
- Natsir, K., Bangun, N., & Waani, A. M. (2023). Analisis Faktor-Faktor yang Mempengaruhi Likuiditas Pasar Saham. *Jurnal Ekonomi*, 28(2), 155-176.
- Partomuan, F. T. (2021). Pengaruh CR, DER dan ROE Terhadap Harga Saham Pada Perusahaan Sub Sektor Konstruksi Yang Terdaftar di Indeks Idx Value 30 PERIODE 2015-2019. *Jurnal Inovatif Mahasiswa Manajemen (JIMEN)*, 1(3), 242-255.
- Priadana, H., & Sunarsi, D. (2021). *Metode Penelitian Kuantitatif*. Tangerang Selatan: Pascal Books.
- Putri, L. A., & Ramadhan, I. M. (2023, April). Pengaruh Rasio Likuiditas dan Rasio Profitabilitas Terhadap Harga Saham. *Owner: Riset & Jurnal Akuntansi*, 7(2). doi:<https://doi.org/10.33395/owner.v7i2.1344>
- Safuridar, & Asyuratama, Z. (2018). Analisis Indikator Makro Ekonomi terhadap Harga Saham Sektor Perbankan. *Jurnal Samudra Ekonomika*, 2(2), 137-146.
- Sampurna, D. S. (2016). Analisis Pengaruh Faktor-Faktor Ekonomi Makro Terhadap Ihsg Di Bursa Efek Indonesia (Bei). *Jurnal Stei Ekonomi*, 25(1), 54-73.
- Savira, L. N., & Hapsari, D. I. (2023). Pengaruh Faktor Fundamental Dan Makro Ekonomi Terhadap Harga Saham Perusahaan Sektor Keuangan Pada Masa Pandemi Covid 19. *Jurnal Riset Terapan Akuntansi*, 7(1), 44-51.