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# EARNINGS PER SHARE, INFLATION, AND NET INTEREST MARGIN AS STOCK PRICE ANTECEDENTS IN THE BANKING SECTOR LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE 2019-2021 PERIOD

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#### **Abstract**

#### **Article Info**

Received: 22/03/2023 Revised: 03/04/2023 Accepted: 14/04/2023 Banking is one of the companies that has an important role in supporting the economy. This study aims to observe financial performance. Thus the results of this study are intended to determine the effect of Earnings Per Share, Inflation and Net Interest Margin on the Stock Price of the banking sector. This type of research uses quantitative because the use of data is in the form of numbers. Data acquisition is secondary in financial statements. population use, namely the listing as a whole on the Indonesia Stock Exchange specifically for the 2019-2021 period. Purposive sampling through certain criteria. The number of samples produced was 38 banks in three years. Data processing using panel data regression analysis techniques through Eviews. This test provides results that the first hypothesis of Earnings Per Share has a significant influence on the stock price of the banking sector, the second hypothesis of Inflation does not have a significant effect on the stock price of the banking sector and the third hypothesis of Net Interest Margin does not have a significant effect on the stock price of the banking sector.

Keywords: Earning Per Share, Inflation, Net Interest Margin, and Stock Price

### 1. INTRODUCTION

Since the WHO (World Health Organisation) has declared COVID-19 a global health emergency, the world economy has been drastically affected. Sales are declining, consumers are changing their behavior, production is decreasing, companies are under serious financial burden, and unemployment rates are rising worldwide. Drastic shifts in businesses and economies worldwide are expected to affect equities and alternative investments such as the digital currency market. To date, from an investment perspective, there is a need to assess how the COVID19 pandemic affected efficiency in cryptocurrency and the stock market (Lahmiri and Bekiros, 2020).

With the COVID-19 outbreak, it has hit various economic fields such as the capital market. The coronavirus (COVID-19) pandemic has had a significant impact on trading on exchanges. This is indicated by the decline in the Composite Stock Price Index (JCI) on the Indonesia Stock Exchange (IDX) (Indonesia Stock Exchange, n.d.). In news published in Mediaindonesia.com April 28, 2020 (Nurhidayat, 2020), President Director of IDX, Inarno Djajadi revealed that some of the JCI declines were 26.43% to 4,635 followed by a decrease in market capitalization by 26.35% to 6,300 trillion, as well as a decrease in daily transactions by 1.49% to 462 thousand times. Inarno added that a significant decline in stock exchange trading was also found in March 2020, when the government announced two positive cases of COVID-19 in Indonesia.

The capital market is a market for various long-term financial instruments with a maturity of more than one year, such as stocks, debt securities (bonds), mutual funds, and various derivative instruments from securities or securities. The capital market is a means of funding for companies and governments, and as a means of investment activities for fund owners (investors). (ojk.go.id)

Stock according to Darmadji ownership of a person, body of a company or limited liability company. Shares are tangible pieces of paper that explain that the owner of the paper is the owner of



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the company that issued securities, by buying shares of a company, investors will have rights to the company's income and wealth. After deducting the payment of all obligations of the company, the investor in making a decision to buy or sell shares, it is possible that income must be weighed with the amount of risk burden that must be borne. As is known, stock investment is an alternative investment that has high risk (Wirawan, 2018, p. 1).

The Indonesia Stock Exchange (IDX) is a capital market in Indonesia. The role of the Indonesia Stock Exchange (IDX) is very important, including for the public as a means to invest and for companies going public as a means of obtaining additional capital by issuing shares as a sign of ownership. One of the attractiveness of stocks for investors lies in the stock price.

Investors want companies that can make a profit. Therefore, the company is expected to make profits instead of losses. Profit is the positive difference on sales minus fees and taxes. The company's profits will then increase the shareholders' assets as company owners. (Budiman, 2018, p.16).

The world economy is inseparable from the role of the banking world, especially Indonesia, which is expected to be able to improve the economy. Because financial institutions, especially banking institutions have a strategic role in moving the wheels of a country's economy.

The banking sector is one of the economic sectors engaged in finance. The Banking Sector has an important role, namely providing and distributing funds for the economic development of the community. Bank is a business entity that collects funds from the public in the form of deposits and distributes them to the public in the form of credit or other forms in order to improve the standard of living of many people. The development of the banking world in Indonesia is very dynamic and modern, both in terms of the variety of banking products and technology owned. Banking increasingly dominates the economic and business development of a country, not only in developed countries but also in developing countries.

The banking sector is one of the financial institutions that acts as an intermediary institution, namely an institution that functions as a distributor of funds from surplus units to deficit units. According to Nuresya (2012) in Hendrayana and Yasa (2015) as an intermediation institution between parties who have excess funds with parties who need funds, banks with financial performance are needed. Comfort and trust of prospective customers. The better the performance of the bank, the more prospective customers will be interested in investing and making transactions at the bank.

The fact of good service will ultimately be able to provide loyalty to customers, and will also be able to attract the company's image so that the company's image in the eyes of customers or customers continues to increase as well. Banks that have excellent service quality can build reputation and customer satisfaction at the bank. Increasing customer loyalty can be used as an indicator of the success of a bank's development.

Banks as service companies that provide various services, including providing loans, circulating currency, currency supervision, storage of valuable objects, company financing, and others (Hasibuan, 2017). The Bank's activities collect public funds in the form of deposits and distribute them back to the community in the form of credit. (Dys Alfina, 2017). Bank performance is measured based on financial statements as a source of information used by investors in assessing financial performance. Stock buyers (investors) are interested in a large net profit as an indicator of the bank's success. The higher the profit generated for investors from buying and selling shares will be a motivation for investors to make even greater investments. The increase in investment will have an impact on the increase in the company's stock price (Lailan and Karton, 2015).

Of the several alternatives, the issuance of securities is the most widely carried out. This method is considered more profitable and safer. In issuing securities (shares), the company expects investment funds from third parties which thus the company has the obligation to pay a certain amount of profit to investors called dividends. *Investors* as parties who have excess funds certainly do not want to lose in investing in one of the securities offered in the secondary market. The main purpose of *investors* in investing is to get profits in returns or dividends.

These problems resulted in the Indonesian economy which was reflected in movements in the capital market and money market. This is because the capital market is very aware of events that are happening. Events such as the global crisis can motivate investors to react whether to sell or buy stocks,



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resulting in stock price *volatility*. *Volatility* is a statistical assessment of price *fluctuations* over a limited period. (Firmansyah, 2006).

وَاللَّهُ يَشَاءُ لِمَنْ اعِفُـيُضَ وَاللَّهُ حَبَّةٍ مِائَةُ سُئْبُلَةٍ كُلِّ فِي سَنَابِلَ سَبْعَ أَنْبَتَتْ حَبَّةٍ كَمَثَلِ اللَّهِ سَبِيلِ فِي أَمْوَالُهُمْ يُنْفِقُونَ الَّذِينَ مَثَلُ (٢٦١) عَلِيمٌ وَاسِعٌ

Meaning: The parable of the man who infuses his wealth in the way of Allah is like a seed that grows seven stalks, on each stalk there are one hundred seeds. Allah multiplies (reward) for whom He wills, and Allah is all-vast (His gift) again all-knowing.

The above verse is an example of us investing which is expanded by *habatin wahidatin* (a seed) into seven grains and finally into seven hundred seeds. It seems that the Qur'an has provided investment guidelines (although in this case it is infaq, which has a *ukhrawi* dimension), but if many people do *infaq* it will help hundreds or even thousands of poor people to be able to productivity in a better direction. It seems that the *multiplier effect* of *infaq* not only affects the afterlife but also affects the dimension of *dunyawiyah*.

Sunariyah (Hugida, 2011) explained that there are several approaches that can be used to estimate the price of a stock. One of the strategies that is often used is the traditional strategy and *the modern* portfolio strategy. In order to analyze stock securities together with traditional strategies, two studies are used, namely technical studies and fundamental studies. Technical study is a study that uses data or records about the market itself to try to access the demand and supply of a particular stock and the market as a whole. This analysis approach uses published market data such as stock prices, stock trading volumes, composite and individual stock price indices, as well as other factors of a technical nature. The fundamental analysis approach is based on the assumption that each stock has an intrinsic value estimated by investors (Ang, 1997).

Stock price is the main consideration for every *investor* or *trader* when they want to buy assets / shares in a company. Each *issuer*, of course, sells shares with different nominals. So, the stock price is the price set by a company or issuer against the share ownership letter in their company. Stock price is something that affects the JCI or Composite Stock Price Index. A stock price index is an indicator that shows the movement of stock prices in a period. JCI will measure the performance of all stocks listed on the IDX (Indonesia Stock Exchange) at a certain unit of time. The stock price index is a picture of the overall up and down movements of stocks listed on the Indonesia Stock Exchange. Usually, JCI will be a conversation when explaining the end of the year to the beginning of the year.

The Indonesia Stock Exchange is tasked with providing securities transaction facilities, conducting fair and efficient fixed-term securities transactions, monitoring exchange activities, preparing annual budgets and allocating exchange profits, and reporting to the Financial Services Authority. One of the companies on the Indonesia Stock Exchange is a company.

Table 1. Share Prices of 38 Banking Sectors on the Indonesia Stock Exchange in 2019, 2020 &; 2021

No	Company Code	Share Price		Jakarta (	Composite I	ndex (JCI)	
		2019	2020	2021	2019	2020	2021
1	BBCA	6685	6770	7300	6329.3	5979.07	6581.48
2	BBRI	4400	4170	4100			
3	BBNI	6750	6175	7850			
4	BMRI	7675	6325	7025			
5	BBTN	2120	1725	1730			
6	BBKP	224	575	270			
7	AGRO	198	1036	1810			
8	BJTM	655	685	750			
9	ARTO	3100	4300	16000			
10	BJBR	1185	1550	1335			
11	BBYB	284	366	2630			
12	BABP	50	50	228			
13	BNGA	965	995	965			
14	READ	300	376	266			
15	BDMN	3950	3200	2350			

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16	BGTG	64	74	244	
17	BNLI	1265	3140	1535	
18	BEKS	50	98	54	
19	BNBA	336	378	3240	
20	BNII	206	318	332	
21	BTPN	3250	3110	2620	
22	MCOR	129	139	116	
23	PNBN	1335	1065	770	
24	BVIC	84	114	204	
25	INPC	61	69	127	
26	BKSW	180	106	192	
27	CLOUD	6350	7200	8475	
28	NISP	845	725	685	
29	AGRS	167	204	166	
30	DNAR	236	173	292	
31	BINA	860	690	3810	
32	NOBU	905	826	710	
33	MAYA	9100	7650	660	
34	BMAS	358	430	1730	
35	BCIC	450	700	199	
36	SDRA	830	740	565	
37	BBMD	2800	1548	2000	
38	BSWD	1750	1750	1750	
	Average Stock Price	1.846,10	1.830,13	2.239,07	

Table 1. can be seen that in 2019, 2020 and 2021 the average stock price of the banking sector still showed a value that was not maximized, as in 2019 it was 1,846.10; 2020 with a value of 1,830.13 while 2021 at 2,239.07. Therefore it is important to investigate what factors can increase the price of stock prices.

It can be concluded that the challenges faced by banking institutions are twofold. The first challenge is that competition is increasing with the number of shadow banking. The second challenge is that the market potential of the banking industry is getting smaller.

According to Fahmi (2015, p. 82) *Earning Per Share* or income per share is a form of providing benefits given to shareholders from each share owned. According to Kasmir (2010, p. 115) *Earnings Per Share* is a ratio to measure the success of management in achieving profits for shareholders. This ratio is low because management has not succeeded in satisfying shareholders, on the contrary, a high ratio, then shareholder welfare increases. *Earnings Per Share* is the level of ability obtained by 101 shareholders in each share owned. *Earnings Per Share* is derived from net income after interest and tax divided by the number of common shares outstanding. The information contained in Earnings *Per Share* describes the amount of the company's net profit after interest and tax distributed to shareholders.

Earnings Per Share (EPS) is an indication of the earnings earned by each common share and is often used to assess profitability and risk associated with profits and also valuation of share price (Pouraghajan, et al. 2013).

The purpose of calculating Earnings Per Share (EPS) according to Machfoedz is to see the progress of the company's operations, determine the stock price, and determine the amount of dividends to be distributed (Machfoedz, 2000). According to Darmadji, the higher the EPS value, the greater the profit provided to shareholders (Darmadji, 2001). Profit is usually the basis for determining dividend payments and future increases in stock value (Prastowo and Julianty, 2008). If the company's Earnings per Share (EPS) is high, more investors will be willing to buy the shares, causing the stock price to be high (Dharmastuti, 2004).

This statement is reinforced by Sasongko and Wulandari's research finding that EPS is positively and significantly related to stock prices (Wulandari and Sasongko, 2006). Therefore, EPS is one indicator that can show company performance, because the size of EPS will be determined by the



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company's profit or is the result that will be received by shareholders for the shares they own for their participation in the company

Inflation negatively affects stock prices because inflation increases the cost of a company. If the increase in costs is higher than the company's revenue, then the profitability of the company decreases. The impact of inflation on the economy in general tends to be negative. Not only does it make the value of money decrease, inflation also affects your savings, even investments. Instead of getting high returns, inflation actually risks eroding the rate of return on your investment. Price increases that occur only on one product, not inflation. Similarly, if the price spike occurs in certain products that are situational or casuistic only. Inflation is not measured by simply tracking the price of a single product item, but is measured by collecting data to determine the Consumer Price Index (CPI).

Net Interest Margin (NIM) according to experts is Net Interest Margin, which is a measure to distinguish between interest on income earned by banks or financial institutions and the amount of interest given to lenders. This definition is almost the same as the gross margin of a no-financial company so it must be calculated accurately.

*Net Interest Margin* (NIM) is a ratio that describes the level of net interest income earned using productive assets owned by the bank. The greater this ratio, the more interest income on productive assets managed by the bank, so that the possibility of the bank in a problematic condition is smaller.

Net Interest Margin (NIM) is a measure of the difference between the interest on income generated by banks or other financial institutions and the value of interest paid to their lenders, relative to the amount of earning interest on assets (Kamsir, 2010: 103).

Previous research that discusses the antecedent of stock prices is Wijaya (2014) which found that high inflation can affect the stock price of the banking sector. Aisah (2021) found that inflation cannot affect stock prices. Indiani and Dewi (2016) found that NIM negatively affects stock prices. Wijaya and Amelia (2017) found that NIM cannot affect stock prices. The inconsistency of the results of previous research makes this study important to do in order to find out the factors that can affect stock prices to be good. The main reference for this research to be carried out is from Wijaya (2014). The difference between this study and the previous one is by adding the variable *of earnings per share*.

#### 2. METHODS

This research uses a cumulative method with the type of data used is secondary data in the form of financial statement data obtained by accessing the Indonesia Stock Exchange website www.idx.com. The population of this study is companies listed on the Indonesia Stock Exchange in the banking sector for the period 2019-2021. Data shows that the number of companies in the banking sector registered during the 2019-2021 period was 46 companies. Sample selection was selected by purposive sampling technique. The criteria determined are the banking sector listed on the Indonesia Stock Exchange for the 2019-2021 period, and the banking sector that publishes complete financial statements for the 2018-2021 period. Based on population and sampling techniques, a sample of 38 companies that met the criteria was obtained.

The population used in this study is the banking sector that has *gone public* listed on the Indonesia Stock Exchange (IDX), there are 46 in the banking sector listed on the Indonesia Stock Exchange (IDX) 2019-2021, as follows:

- 1. BBCA PT Bank Central Asia Tbk
- 2. BBRI PT Bank Rakyat Indonesia Tbk
- 3. BBNI PT Bank Negara Indonesai Tbk
- 4. BMRI PT Bank Mandiri Tbk
- 5. BRIS PT Bank Syariah Indonesia Tbk
- 6. BBTN PT Bank Tabungan Negara Tbk
- 7. BBKP PT Bank KB Bukopin Tbk
- 8. AGRO PT Bank Raya Indonesia Tbk
- 9. BJTM PT Bank Pembangunan Daerah Jawa Timur Tbk
- 10. BTPS PT Bank BTPN Syariah Tbk
- 11. ARTO PT Bank Jago Tbk
- 12. BJBR PT Bank Pembangunan Daerah Jawa Barat



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- 13. BBYB PT Bank Neo Commerce Tbk
- 14. BABP PT Bank MNC Internasional Tbk
- 15. BNGA PT Bank CIMB Niaga Tbk
- 16. BANK PT Bank Aladin Syariah Tbk
- 17. READ PT Bank Capital Indonesa Tbk
- 18. BDMN PT Bank Danamon Tbk
- 19. BGTG PT Bank Ganesha Tbk
- 20. BNLI PT Bank Permata Tbk
- 21. PNBS PT Bank Panin Dubai Syariah TBk
- 22. BEKS PT Bank Pembangunan Daerah Banten Tbk
- 23. BNBA PT Bank Bumi Arta Tbk
- 24. BNII PT Bank Maybank Indonesia Tbk
- 25. BTPN PT Bank BTPN Tbk
- 26. MCOR PT Bank China Constr. Tbk
- 27. PNBN PT bank Pan Indonesia Tbk
- 28. BVIC PT Bank Victoria Intl. Tbk
- 29. INPC PT Bank Artha Graha Internasional Tbk
- 30. BKSW PT Bank QNB Indonesia Tbk
- 31. AMAR PT Bank Amar Indonesia Tbk
- 32. MEGA PT Bank Mega Tbk
- 33. NISP PT Bank OCBC NISP Tbk
- 34. AGRS PT Bank IBK Indonesia Tbk
- 35. BSIM PT Bank Sinarmas Tbk
- 36. DNAR PT Bank Oke Indonesia Tbk
- 37. BINA PT Bank Ina Perdana Tbk
- 38. NOBU PT Bank Nationalnobu Tbk
- 39. MAYA PT Bank Mayapada Tbk
- 40. BMAS PT Bank Maspion Indonesia Tbk
- 41. MASB PT bank Multiarta Sentosa Tbk
- 42. BCIC PT Bank JTrust Indonesia Tbk
- 43. BBSI PT Bank Bisnis Internasional Tbk
- 44. SDRA PT Bank Woori Saudara Indonesia 1906 Tbk
- 45. BBMD PT Bank Mestika Dharma Tbk
- 46. BSWD PT Bank of India Indonesia Tbk

This research sample was taken by purposive sampling, namely sampling based on subjective considerations of research adjusted to the research objectives (Astutik, 2005: 66). The criteria used as a research sample are:

- Banking companies that are still active and listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period
- Publish financial statements for the 2019-2021 period and have complete financial statements in accordance with the data needed in research variables.

The criteria for the process of collecting data for the banking sector registered on the IDX for the 2019-2021 period are as follows:

Table 2 Sampling Process

No	Criterion	Number of Companies
1.	Banking Sub-Sector Companies that have been and are still listed on the Indonesia Stock Exchange for the 2019-2021 period.	(46)
2.	In the banking sector that has data on EPS, Inflation, NIM and Stock Price 2019-2021	(38)



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3.	The company moved sectors during the span of the research	(0)
	year, namely 2019-2021.	
	Number of company samples used	38

Comparative causal data is research conducted to compare a variable (object of research), between different subjects or different times and find causal relationships. Secondary data is secondary data obtained indirectly because the data is available and can be used directly. The data was obtained by the author using the documentation data collection method. Taken on the data of the Indonesia Stock Exchange, web.idx.id, where the type of data to be taken for this study is the type of historical data from the Indonesia Stock Exchange database

The data in this study is taken from financial statements published on the Indonesia Stock Exchange. The data collection method uses the documentation method, which is a data collection method that obtains data sources from electronic media, banking sector prospectuses, to the internet. This is because the financial statement data of the banking sector is obtained from the financial statements, which can be accessed through www.idx.co.id. This study used the research period from 2019-2021.

Data analysis aims to convey and limit findings to become organized and more meaningful data. The data analysis used in this study is quantitative analysis expressed by numbers processed using the Eviews program. The data analysis used in this study was:

## 1. Descriptive Statistics

Descriptive analysis aims to describe and identify how the independent variable relates to the dependent variable. Descriptive analysis includes minimum, maximum, mean, and standard deviation values.

# 2. Classic Assumption Test

Testing of classical assumptions is necessary to detect the presence/absence of deviations from classical assumptions over the multiple regression equations used. This test consists of normality, multicollinearity, heteroscedasticity and autocorrelation tests.

### a. Normality

The normality test aims to test whether the bound variable and the independent variable have a normal data distribution in a regression model. This test is also aimed at detecting whether confounding factors are freely distributed. The normality used in this study uses the analysis of the Jarque Bera test by looking at the prob value. J-B is greater than 5% or alpha (prob. J-B > 0.05).

# b. Multicollinearity Test

A multicolonicity test is performed to test whether the regression model correlates with independent variables. The way to detect multi-coloniality is to look at th ranclue and the Variance Inflation Fvalues (VIF) value. These two measures indicate each independent variable described by the other independent variable. (Ghozali, 2011: 105).

Multicollinearity tests can be conducted using correlation tests between independent variables using tolerance and variance inflating factor (VIF). VIF is a quantity that shows the independent variable can be described by another independent variable in the regression equation. To determine whether or not the following criteria can know multicollinearity:

If VIF < 10, then multicollinearity does not occur

If VIF > 10, then multicollinearity occurs

If the tolerance  $\geq 0.01$ , then multicollinearity occurs

If the tolerance < 0.01, then multicollinearity does not occur

### c. Heteroscedasticity test

The heteroscedasticity test aims to test whether, in the regression model, there is an inequality of variance from the residual of one observation to another. The way to detect heteroscedasticity is to look at the scatterplot graph. If there is no clear pattern and the dots spread above and below the zero on the Y-axis, heteroscedasticity does not occur. (Ghozali, 2011: 139).

The scatter plot method can detect heteroscedasticity by plotting the predicted value with its residual value. A good model is obtained if there is no specific pattern on the chart, such as collecting



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in the middle, narrowing then widening or vice versa. The statistical test used is the white test. White's test criteria are:

- 1. Obs\*R square > c2 table, then there is heterokedacity.
- 2. Obs\*R square < c2 table, then there is no heterokedacity.

- 1. Prob Obs\* R square < 0.05, then there is heterokedacity
- 2. Prob Obs\* R square > 0.05, then there is no heterokedacity

### d. Autocorrelation test

The autocorrelation test aims to test whether in the regression model there is a correlation of confounding errors in the previous period (t-1). The way to detect autocorrelation is to use the *Lagrange* Multiplier test (LM test) which will produce the Breusch-Godfrey statistic. (Ghozali, 2011: 113)

Autocorrelation testing can be done in four ways: the graph method, the run test, the Durbin-Watson experiment, and the Breusch-Godfrev (BG) Test. The test method that is often used is the Durbin-Watson test (DW test) with conditions.

This hypothesis is tested to determine the effect of *independent variables on dependent variables*, either.

### **Hypothesis Test**

## 1. Panel Model Selection Techniques

#### a. **Test Chow**

Chow testing to determine whether *common* effect or *fixed effect* methods are used. If prob, chisquare < 0.05, then fixed effect; if prob, chi-square> 0.05, then common effect. If the decision accepts the common effect, then it stops at the expected effect, if the Chow test accepts the fixed effect then proceed with random effect testing.

#### b. Hausman Test

Assumptions from the data used by dependent variables tend to have characteristics that remain throughout the observation time or invite changes throughout the observation time (Ekanda, 2015: 404). Random effect using the Hausman test whether the fixed effect or random effect method is chosen. When prob. Cross section random < 0.05, then fixed effect. When prob. Cross section random > 0.05then random effect.

### 2. Multiple Linear Regression Analysis

According to Ghozali (2011: 13), multiple linear regression is testing the influence of two or more independent variables on one dependent variable. It is called multiple because of the many factors (in this case variables) that may affect non-free variables. Regression analysis aims to determine whether the resulting regression is good for estimating the value of the dependent variable. Multiple linear regression model as follows:

 $Y = a + b \cdot 1 \cdot x_1 + b \cdot 2 \cdot x_2 + b \cdot 3 \cdot x_3 + e$ 

### 3. Individual Parameter Significant Test (Statistical Test t)

The statistical test t basically shows how far one explanatory (independent) variable has influence individually in explaining the variation of the dependent variable. The t-test has a significance value of  $\alpha = 5\%$ . The criteria for testing hypotheses using statistical tests t are:

- If the significance value of t (p-value) < 0.05, an alternative hypothesis is accepted, which states that an independent variable individually and significantly affects the dependent variable.
- If the significance value of t (*p-value*) > 0.05, then the hypothesis is rejected, stating that a variable individually and significantly does not affect the dependent variable (Ghozali, 2018: 98).

# Test Coefficient of Determination (R<sup>2</sup>)

The Coefficient of Determination (R<sup>2</sup>) aims to measure how far the model can explain the variation of the dependent variable. The value of the coefficient of determination is between zero and one  $(0R \le 2 \le 1)$ . This shows that a small *adjusted* value of R2 means that the ability of independent variables to explain the variation of the dependent variable is minimal. If the adjusted value of R<sup>2</sup> is close to one, the independent variables provide almost all the information needed to predict the variation of the dependent variable (Ghozali, 2018: 98).

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# 3. RESULTS AND DISCUSSION

# **Descriptive Analysis**

The statistical results of the data variables used in this study and data processing have been carried out as follows:

Table 3 Descriptive Statistical Results

	N	Minimum	Maximum	Mean	Std. Deviation
HS	78	64.00000	16000.00	2423.846	2884.018
.EPS	78	1.060000	601.0600	126.4347	151.4996
INFLATION	78	1.680000	2.720000	2.111795	0.464427
NIM	78	1.100000	8.300000	4.659872	1.381252
Valid N	78				
(listwise)					

Some explanations of the results of descriptive statistical analysis are as follows:

### 1. Earning Per Share

The results of the descriptive statistical analysis test show that  $Earning\ Per\ Share\ (EPS)\ (X_1)$  in the Banking sector listed on the IDX for the 2019-2021 period averaged (mean) of 126.4347 with a standard deviation of 151.4996. The highest Earnings Per Share (EPS) was 601.0600, and the lowest was 1.060000.

#### 2. Inflation

The descriptive statistical analysis test results show that inflation (X 2) in the Banking sector listed on the IDX for the 2019-2021 period averaged (*mean*) of 2.111795, with a standard deviation of 0.464427. The highest inflation was 2.720000, and the lowest was 1.680000.

#### 3. Net Interest Margin

The descriptive statistical analysis test results show that the *Net Interest Margin* (NIM) (X<sub>3</sub>) in the Banking sector listed on the IDX for the 2019-2021 period averaged 4.659872 with a standard deviation of 1.381252. *The highest Net Interest Margin* (NIM) is 8.300000, and the lowest is 1.100000.

### 4. Share price

The descriptive statistical analysis test results show that the Stock Price (Y) in the Banking sector listed on the IDX for the 2019-2021 period averaged (*mean*) of 2423,846, with *a standard deviation* of 2884,018. The highest share price was \$16000.00, and the lowest was \$64,00000.

### **Classical Assumption Test**

# 1. Normality Test

The following is an exposure to the results of data processing that will show whether the data is normally distributed or not.

Table 5. normality test

Jarque-fallow Probability

1.620037 0.444850

The data were tested using *the Jarque Bera* test. Based on the results of the normality test using the *Jarque Bera* test, it shows that the residual regression equation in the normality test is normally distributed. This is indicated in the Probability value of 0.444850, greater than 5% (0.444850 < 0.05).

### 2. Multicollinearity Test

The following are the results of multicollinearity tests performed using correlation tests.

Table 6 Multicollinearity Test Results Table

1 0	Tuest o municularity Test Hessias Tuest			
	.EPS	Inflation	NIM	
.EPS	1.000000	-0.067682	0.268239	
Inflation	-0.067682	1.000000	0.128073	



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NIM 0.268239 0.128073 1.000000

Based on the correlation test between the independent variables above, there is no very high correlation value (degree of closeness) of 0.9 (>90%) between independent variables. The independent variables correlated with each other no more than 0.9 (90%), indicating the absence of symptoms of multicollinearity.

### 3. Autocorrelation Test

The following is a table of results from autocorrelation tests performed using the Breusch-Godfrey Test.

Table 7 Autocorrelation Test	t Results
Prob. Chi-Square(2)	0.1241

The results of the Breusch-Godfrey Test show that Obs' R-Squared obtained a Prob Chi-Square value of 0.1241 > 0.05. Thus it can be concluded that there is no Autocorrelation.

### 4. Heteroscedasticity Test

Here are the results of heteroscedasticity tests that have been performed using Breusch-pagan-Godfrey.

Table 8 Heteroscedasticity	y Test Results
Prob. Chi-Square(9)	0.2582

The examination of the White test showed that in Obs' R-Squared obtained a Chi-Square *Probability* value of 0.2582 < 0.05. Thus, it can be concluded that heteroscedasticity does not occur.

#### **Panel Data Regression Analysis**

Model estimation testing is carried out in three ways: the significance test of the Chow Test and the Hausman Test.

# a. Significance Test (chow Test)

The *chow* test is used to determine whether *the common* effect or *fixed effect* method is used. Results of decision making:

- If prob. Chi-Square < 0.05 Fixed effect →
- If prob. Chi-Square > 0.05 Common effect →

Table 9 Chow Test Results

	Statistics	d.f	Prob.
Cross-section F	1.512204	(26,49)	0.1050
Cross-section Chi-square	46.540148	26	0.0079

The results of the Chow Test show the value of prob. Chi-square of 0.0079, less than the 5% alpha (0.0079 < 0.05). This result shows the *selected fixed effect*.

### b. Hausman Test

The Hausman test determines whether *fixed* effect or *random effect* methods are used. Decision:

- If prob. Cross Section Random < 0.05 fixed effect →
- If prob. Cross Section Random > 0.05 Random effect  $\longrightarrow$

Table 10 Hausman Test Results

Test Summary	Chi-sq. Statistics	Chi-sq. d.f	Prob.
Cross-section random	1.051963	3	0.7887

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The results of the Hausman test show the value of prob. Cross section random of 0.7887 > 0.05. It can be concluded that the right model to use is the random effect model.

#### c. Final model selection

The following regression analysis table of the influence of the independent variable on the dependent variable is as follows.

Table 11 Random effect Panel Data Test Results

Variable	Coefficient	Prob.	R-squared
С	0.458528	0.0000	
.EPS	0.119287	0.0000	0.455534
Inflation	-0.053198	0.3329	
NIM	0.082620	0.1005	

# d. Panel Data Analysis

Based on table 4.8 it can be seen that the estimation model equation is as follows:

HS = 0.0.455534 + 0.119287 EPS - 0.053198 INFLATION + 0.082620 NIM + e

The regression model equation can be described:

- a) A constant of 0.455534 means that if the EPS, INFLATION, AND NIM values are constant, then the value of the company is 0.455534.
- b) The EPS regression coefficient of 0.119287 means that if EPS increases by one piece, then the company's value increases by 0.119287. Conversely, if EPS falls by one piece, then the value of the company decreases by 0.119287.
- c) The regression coefficient of INFLATION of -0.053198 means that if INFLATION increases by one unit, then the value of the company decreases by -0.053198. Conversely, if INFLATION decreases by one unit, then the value of the company increases by -0.053198.
- d) The NIM regression coefficient of 0.082620 means that if NIM increases by one unit, the company's value decreases by 0.082620. Conversely, if NIM decreases by one unit, the company's value increases by 0.082620.

# **Hypothesis Testing**

#### a. T Test

The T-test is performed to see if each independent variable influences the dependent variable.

H 0 is accepted if the prob value > 0.05 means there is no influence between the independent and dependent variables.

H 0 is rejected if the prob value  $\leq 0.05$  means that there is an influence between the independent variable and the dependent variable.

- a) The variable *Earnings per share* (EPS) has a positive and significant effect on the value of the banking sector, evidenced by the value of prob. 0.0000 > 0.05. This shows the hypothesis that earnings per share (EPS) have a significant effect on stock prices.
- b) Inflation variable has no negative or significant influence on the value of the banking sector. From the results in the table above, it can be concluded that there is no *significant negative* influence of inflation on stock prices, evidenced by the value of *prob*. 0.3329 > 0.05. This shows that the hypothesis does not have a significant negative effect on stock prices.
- c) The variable Net Interest Margin (NIM) has no positive and significant influence on the value of the banking sector. From the results in the table above it can be concluded that there is no significant effect of *Net Interest Margin* (NIM) on stock prices, evidenced by the value of prob. 0.1005 > 0.05. this shows no significant effect of *Net Interest Margin* (NIM) on stock prices.

# b. Coefficient of Determination (R<sup>2</sup>)

Coefficient determination (R2) is used to measure how far the model is able to explain the variation of the independent variable. Based on table 4.8, it is known that the R-squared is 0.455534 or 45.55%. In this case, it shows that the independent variables *Earnings per share* (EPS), Inflation and *Net Interest* 



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Margin (NIM) can explain that the value of the company is 45.55%. While the remaining 54.45% was explained by other variables, excluding the variables of this study.

### **DISCUSSION**

### 1. The Effect of Earnings per Share (EPS) on Stock Prices

The results of the statistical test (t-test) show that Earning per share (EPS) has a significant influence on stock prices in the Banking sector listed on the Indonesia Stock Exchange for the 2019-2021 period. The results of this study are also supported by the results of research that has been conducted in trading stocks, earnings per share can affect stock prices, because investors always pay attention to the growth of the company's earnings per share so that it can affect the ups and downs of stock prices. The results of this research are also supported by the results of research conducted by Priatinah and Kusuma (2012).

# The Effect of Inflation on Stock Prices

Inflation is an increase in commodity prices in general caused by the dissynchronization between the program of the commodity procurement system (production, pricing, printing money and so on) with the level of income owned by the community). The results of the statistical test (t-test) show that inflation has no significant influence on stock prices in the Banking sector listed on the Indonesia Stock Exchange for the 2019-2021 period. This result is in line with the results of this study supporting previous research conducted by Septia Wulandari and I Made Angga Adikerta which stated that variable inflation has no effect on stock prices.

It is also supported by the results of research from Lintang, Mangantar, and Baramuli (2019) which in their research states that inflation has no influence on stock prices. Inflation is one of the macro diseases that concern economic policy making. Because the problem of inflation is very influential on people's welfare. Inflation is defined as an overall price increase that lasts continuously. Excessive inflation can harm the economy as a whole, one of which can make many companies go bankrupt due to rising costs and several other factors. So it can be concluded that high inflation will drop stock prices in the capital market and reduce demand for stocks due to reduced real income of the people. It will also reduce the level of real income obtained by investors from their investments.

#### 3. The Effect of Net Interest Margin (NIM) on Stock Prices

The statistical test results (t-test) show that Net Interest Margin (NIM) has no significant effect on stock prices in the Banking sector listed on the Indonesia Stock Exchange for the 2019-2021 period. This result means that *Net Interest Margin (NIM)* does not affect the Share Price.

This study's results align with previous research conducted by Sari et al. (2018), and Wijaya and Amelia (2017), which stated that NIM does not affect Stock Prices. "The higher the NIM ratio, the better the ability of bank management to manage its productive assets. This ratio needs to be observed periodically so that management can take appropriate measures. When the NIM ratio falls from the reference figure, management must take more competitive steps in disbursing funds from the aspect of lending rates.

### 4. CONCLUSION

This study examines the positive effect of earnings per share, inflation, and net interest margin on stock prices in the banking sector listed on the Indonesia Stock Exchange 2019-2021. The population in this study is 46 banking sectors which are the flattest on the IDX with 38 qualified companies. After going through the data analysis process, the data is concluded as follows: Hypothesis 1, which states that earnings per share have a positive effect on stock prices, is accepted. Hypothesis 2 that inflation negatively affects stock prices is rejected. Hypothesis 3 that net interest margin positively affects stock prices is rejected.

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