Analysis of the Effect Between Operating Cash Flow, Profitability Ratio and Earnings Per Share on Share Price in Banking Sector in 2015-2019

Siti Nurul Khomariah[1]

[1] University of Jember, Kalimantan St. No. 37, Jember, 68121, East Java, Indonesia
 Email: nurulatoilah25@gmail.com

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ABSTRACT

Changes in share price are influenced by several aspects. In this study using operating cash flow variables, the level of profitability ratios and earnings per share. From the company's operating cash flow, investors can measure the company's performance in allocating its funds. And investors need to measure the level of company profitability and earnings per share in order to see and assess the profit that will be received by investors. This purpose of this research to analyze the level of influence of operating cash flow and profitability and earnings per share on stock prices. This research is quantitative and the data source used is the financial statements duplicated annually by the IDX for 5 years from the 2015-2019 period. The research subjects are banking companies listed on the IDX. The results showed that cash flow had no effect on stock prices in the banking sector, while the level of profitability ratios and earnings per share had a significant effect on stock prices on the IDX. Simultaneously, the operating cash flow variable, the level of profitability ratio and earnings per share have an effect on banking stock prices.

1. INTRODUCTION

The capital market is intended for long-term investment by investors. In global competition it is not easy for banks to find investors. Banking has a role to make it easier for investors to invest by providing guaranteed facilities and security. As well as providing accurate information to every investor. Because investors also have the same goal as banking, which is to make a profit. Investors are oriented to *capital gains* or profit, obtained from the difference between the selling price or reduction in the purchase price of stock shares at an entity (Rawung et al. 2017).

Effect of cash flow and profitability ratio on stock prices in the banking sector has done previous research, including that by:

The effect of profitability on banking stock prices using three independent variables, namely Earning Per Share (EPS), Return on Assets (ROA) and Return on Equity (ROE). From the research conducted, it was found that not all stock prices in the banking sector were influenced by Earning Per Share (EPS), Return on Assets (ROA) and Return on Equity (ROE). This is caused by external factors (such as economic conditions) that affect stock prices during the study year.

Savira et al. (2020) conducted research on stock prices, namely the following research title, the effect of cash flow and profitability on stock prices in Indonesia by using independent variables cash flow and profitability and with the moderating variable financial distress. The conclusions of this study are cash flow has a

positive and significant effect on the company's stock price. This means that the higher the company's cash flow, the higher the company's stock price. And profitability has a positive and significant effect on the company's stock price. This means that the higher the company's profitability, the higher the company's stock price. The purpose of this study is to analyze the level of influence of operating cash flow and profitability and earnings per share on stock prices (Savira et al. 2020).

2. THEORETICAL FRAMEWORK AND HYPOTHESES
Share Price

The share price is the price set by a company where this price is used as an indicator for other people to own shares in that company. The level of stock prices shows the company's performance. The higher the stock price of the eating company, it also shows that the company's performance is also good.

Cash Flow Operating

According to Brigham et al. (1997), cash flow can be seen from cash flow that increases, indicating a healthy company that will increase the stock price of a company. In cash flow there are three grouped activities, namely:

a. Operating Activities show that expenditures and cash inflows from these activities are also the company's main activities.
b. Investment activities relate to cash inflows and disbursements which include long-term activities.
c. Funding activity is an activity related to the company's budget structure and shows the financing activity of various transactions that affect capital
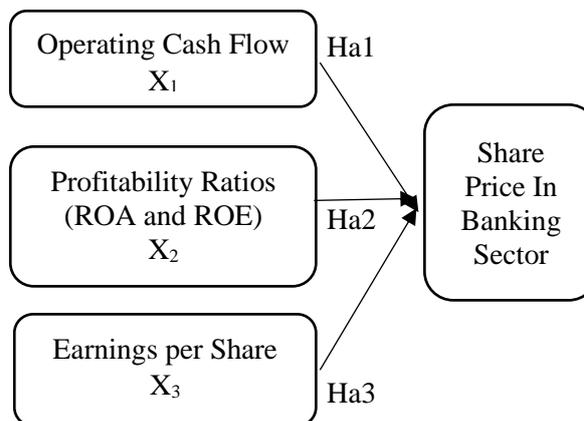
Profitability Ratio

The ratio of profitability in banking, there is usually an Earning per share (EPS) ratio or earnings per sheet a Return on Assets (ROA). Dendawijaya (2009) argues that the amount of ROA can measure the level of profitability ratios and the level of profit earned by a company b. Return on Equity (ROE) ROE is a ratio that can measure the bank's performance in managing existing funds.

Earnings per Share

Basic earnings per share Represents net income (loss) on shares per share that could be issued during the period (Savira et al. 2020).

Conceptual Framework

Based on the description above, the framework of this research can be seen in the following figure:

Hypotheses

This study will analyze the effect of operating cash flow and profitability ratios consisting of three ratios, namely Return On Assets (ROA), Return On Equity (ROE), and earnings per share which are expected to affect changes in stock prices in the banking sector.
Hypothesis Formulation:

Ha1 : There is an influence of Operating Cash Flow or X1 on stock prices (Y)

Ha2 : There is an effect of Return On Assets (ROA) and Return On Equity (ROE) on stock prices (Y)

Ha3 : There is an effect of earnings per share or X4 on stock prices (Y)

Ha4 : There is an effect of operating cash flow, Return On Assets (ROA), Return On Equity (ROE), and earnings per share on stock prices (Y)

3. RESEARCH METHOD
Design or Type Research Design

Research entitled "Analysis of the Influence of Cash Flow and Profitability Ratios on Banking Stock Prices" is quantitative in nature. The data source used is the financial statements duplicated annually by the IDX for 5 years from the 2015-2019 period. The research subjects are banking companies listed on the IDX while the object of research is the annual financial reports published on the Indonesia Stock Exchange (IDX) and through the IDX

website, namely www.idx.co.id and the share price website www.investing.com

Operational Definition of Research Variables
Based on the introduction that has been described and the hypothesis being tested, the variables to be analyzed in this study are:

a. Dependent Independent
Variable The dependent variable is the variable that is affected or as a result of the independent variable (Sugiyono 2009). In this study, the dependent variable used is the stock price.

b. Variables Independent
Sugiyono (2009) variables or independent variables are variables that affect or cause the dependent variable (dependent variable) to change or appear. In this study the independent variables (free) used are as follows: Operating cash flow, profitability ratios (ROA and ROE) and earnings per share.

1. Operating cash flow is obtained from the company's cash flow statement that reflects the performance of a company.
2. Return On Assets (ROA) is a ratio used to measure profitability or the level of profit obtained by bank management. The formula for finding the Return On Assets (ROA) is as follows:

$$\text{ROA} = \frac{\text{Earning Before Tax}}{\text{Total Asset}} \times 100$$

3. Return on Equity (ROE) is the ratio used to measure bank performance in managing existing funds. There is a formula for finding the Return on Equity (ROE) ratio:

$$\text{ROE} = \frac{\text{Earning Before Tax}}{\text{Capital of Bank}} \times 100$$

4. Earnings per Share is the net profit (loss) per common share available for issuance during that period. This variable can be found by dividing the total profit divided by the shares outstanding (Setiawan and Tjun 2010).

Population
According to Martono (2010) population is a group of objects or subjects that have certain characteristics and are in accordance with the requirements related to research and a group of objects or subjects that are in an area. The research population is banking companies listed on the Indonesia Stock Exchange (BEI) for the 2015-2019 period.

Sample
According to Sugiyono (2009), the sample is part of a population element that has certain characteristics. If the research population is large, the researcher can use a sample taken from the population to conduct research.

Table 1. Research Sample

NO	CODE	NAME OF BANK
1	BBCA	Bank Central Asia
2	BBNI	Bank Negara Indonesia
3	BBRI	Bank Rakyat Indonesia
4	BMRI	Bank Mandiri

Source: www.idx.co.id and processed secondary data (2020)

The sample standards used in this study are:
a. Banks listed on the Indonesia Stock Exchange from 2015-2019.
b. Banks that have complete data regarding Return On Assets (ROA), Return On Equity (ROE), and earnings per share during the research years consecutively.

Data Analysis Method
The data analysis method used is multiple linear regression analysis. This analysis is used to examine the effect of operating cash flow and profitability ratios, namely *Return On Assets* (ROA), *Return On Equity* (ROE), and earnings per share as well as changes in stock prices in the banking sector on the IDX for the 2015-2019 period.

Descriptive Statistics
Descriptive statistics can determine the description of research data from the minimum value and maximum value in the data.

Classic assumption test
1. **Normality Test**
Is a test to determine whether the data used in the study are normally distributed or not. The basis for decision making:

a. **Kolmogrov-Smirmov**
1) If the Sig. > 0.05, where the data are normally distributed.
2) If the Sig. <0.05, then the data are not normally distributed.

b. **Probability-Plot**
1) Data can be said to be normally distributed if in the image the data points are scattered

around the diagonal and follow the diagonal direction, the pattern is normally distributed.

2) However, the data is said to be not normally distributed, if the data spread far from the diagonal and do not follow the diagonal

2. Multicollinearity Test

With this test, we can find out whether the data is multicollinearity or not. In the regression model it can be seen from the tolerance value and variance inflation factor (VIF).

a. If the *tolerance value is* > 0.100 and the VIF value is <10, it can be concluded that the regression model does not have multicollinearity between the independent variables.

b. Value *Tolerance* <0.100 and VIF value> 10, it can be concluded that the regression model has multicollinearity between the independent variables.

3. Test Heteroscedasticity

Said homoskedastisitas if residual having the same variant, but if the variant is not the same or different can be said heteroskedastisitas

4. Autocorrelation Test

A good regression equation is an equation that does not have autocorrelation problems, if autocorrelation occurs, the company is not good (Sunyoto 2013). Size in determining whether there is an autocorrelation problem with the Durbin Watson (DW) trial. The data can be concluded that there are no autocorrelation symptoms if the Durbin Watson (DW) value is between du to (du-4).

Multiple Linear Regression Analysis

This study uses multiple linear regression data analysis techniques because the independent variables in the study are more than two.

Hypothesis Testing
1. Individual significance test (t)

Statistical test by performing the t statistical test, the user can find out the influence of the independent variable on changes in the dependent variable. The significance of this part of the coefficient has a t distribution with nk-1 degrees of freedom, and is significant if $\alpha = 0.05$. The basis for decision making:

a. If the Sig value of t table, then the variable X affects the variable Y.

b. If the value of Sig> 0.05 or the t value of the F table, then the independent variable (free) affects the dependent variable (bound) at the time simultaneously.

2. Simultaneous Significance Test (F Statistical Test)

The F statistical test is used to test the significance of operating cash flow and profitability ratios (namely return on assets (ROA), return on equity (ROE) and earnings per share to changes in banking stock prices. Basically, it shows whether all the independent variables included in the model have the same effect on the dependent variable. Basis for decision-making on the F test based on the calculated F value and F table:

a. If F count> F table value, then the independent variable (free) affects the dependent variable (bound) at the same time.

b. Conversely if F count <F table then the independent variable (free) has no effect on the dependent variable (bound) at the same time

Decision making can be done based on the significance value of the results of the SPSS output is as follows :

a. If the significance value <0.05, the independent variable significantly affects the dependent variable.

b. If the sign value if value> 0.05, the independent variable does not significantly affect the dependent variable (Setiawan 2015)

4. RESULT AND DISCUSSION
Descriptive Statistics

Descriptive statistics can determine the description of research data from the minimum value and maximum value in the data. The following are the results of research conducted descriptively in this study:

1. Stock Prices
Table 2. Sample Banking Stock

No	2015	2016	2017	2018	2019
1	13,300	15,500	21,900	26,000	33,425
2	4,990	5,525	4,990	8,800	7,850
3	2,285	2,335	3,640	3,660	4,400
4	4,625	5,787	8,000	7,375	7,675

Source: Processed secondary data (2020)

Description:
1: Bank Central Asia
2: Bank Negara Indonesia
3: Bank Rakyat Indonesia
4: Bank Mandiri

Based on data processed from www.investing.com obtained the highest share price data with the lowest share price. In 2015, BCA shares were the highest shares at Rp. 13,300 while Bank BRI is the lowest share price at Rp. 2,285. In 2016, Bank BCA's share price was the highest at Rp. 15,500 while the lowest share price was at BRI Bank of Rp. 1,335. In 2017, Bank BCA was the bank with the highest share price of Rp. 21,900 while the lowest share price was at Bank BRI with a share price of Rp. 3,640. In 2018 Bank BCA remains the bank that has the highest shares, amounting to Rp. 26,000 and Bank BRI is the lowest with a price of Rp. 3,660, and in 2019, Bank BCA became the highest with a share price of Rp. 33,425 and Bank BRI became the bank with the lowest share price, namely Rp. 4,400.

2. Return On Asset (ROA)

Table 3. Sample Banking ROA Value

KODE	2015	2016	2017	2018	2019
BBCA	3,81	3,82	3,89	3,96	3,95
BBNI	2,25	2,37	2,42	2,45	2,29
BBRI	3,70	3,38	3,29	3,22	3,06
BMRI	3,06	1,79	2,41	2,82	2,76

Source: Processed secondary data (2020)

Based on the data listed in the table above, it can be seen that the bank with the highest ROA value in 2015 was Bank BRI of 3.70 %. Meanwhile, the banks with the lowest ROA were Bank BNI at 2.25%. In 2016, the highest ROA value was Bank Central Asia (BBCA) at 3.82% and Bank Mandiri (BMRI) was the bank with the lowest ROA value, namely 1.79%. In 2017, Bank Central Asia (BBCA) was the bank with the highest ROA value of 3.89% and Bank Bank Mandiri (BMRI) was the bank with the lowest ROA value of only 2.41%.

In 2018, the bank that had the highest ROA value was Bank Central Asia (BBCA), which had an ROA value of 3.96% and the lowest ROA was Bank Negara Indonesia (BBNI) whose ROA was only 2.45%. In 2019, the bank with the highest ROA value was Bank Central Asia (BBCA), which had an ROA value of 3.95% and

the lowest ROA was Bank Negara Indonesia (BBNI) with an ROA of 2.29%.

3. Return on Equity (ROE)

Table 4. Sample Banking ROE Value

KODE	2015	2016	2017	2018	2019
BBCA	25,28	22,92	22,19	21,55	20,84
BBNI	11,65	16,02	17,01	17,96	15,49
BBRI	28,72	23,14	22,12	22,54	20,77
BMRI	20,67	12,11	15,97	18,35	17,43

Source: Processed secondary data (2020)

Based on the data listed in the table above, it can be seen that the bank with the highest ROE value in 2015 was Bank Rakyat Indonesia (BBRI) at 28.72%. Meanwhile, the bank with the lowest ROE was Bank BBNI namely 11.65%. In 2016, the highest ROA value was Bank Rakyat Indonesia (BBRI), which had an ROE value of 23.14% and Bank Mandiri (BMRI) was the bank with the lowest ROE value of 12.11%.

In 2017, BCA was the bank that had the highest ROE value of 22.19% and Bank Rakyat Indonesia (BBRI) was the bank with the lowest value of 22.12%. In 2018, banks that had the highest ROE value were BBRI at 22.54% and Bank Negara Indonesia which was the lowest with a value of 17.96%. In 2019, the bank that had the highest ROE value was Bank Central Asia (BBCA) and the lowest ROE was Bank Negara Indonesia (BBNI), which ROA was 15.49%.

4. Earnings per Share

Table 5. Earnings per Share for Banking Samples

KODE	2015	2016	2017	2018	2019
BBCA	731	836	945	1.049	1.159
BBNI	487	610	730	805	825
BBRI	1030	1072	237	265	281
BMRI	872	592	442	536	589

Source: Processed secondary data (2020)

Based on the data listed in the table above It can be seen that in 2015 BRI was the bank with the highest earnings per share with earnings per share of 1030.43, while for the lowest profit was Bank BNI whose earnings per share was 487. In 2016 the Bank BRI is the bank with the highest earnings per share with earnings per share of 1,071.51 and Bank Mandiri is the lowest with

earnings per share of 591.71. In 2017, Bank BCA is the bank with the highest earnings per share, with earnings per share of 945, while Bank BRI is the bank with the lowest earnings per share with earnings per share of 237.22 in 2018 Bank BCA is a bank that has the highest earnings per share value with earnings per share of 1,049. BRI is the lowest with an earnings per share value of only 264.6. In 2019 BCA was the highest with earnings per share of 1,159 and Bank BRI with earnings per share of 281.31 and was the lowest.

Classical Assumption Test
 1. **Normality test**

Table 6. Kolmogorov-Smirnov Test

	Unstandardized Residual
N	20
Kolmogorov-Smirnov Z	,815
Asymp. Sig. (2-tailed)	,520

Source: SPSS output data (2020)

Based on the table above, it can be concluded that the data in this study are normally distributed. Due to the value Assymp. Sig. (2-tailed) is greater than 0.05, which is 0.520.

 2. **Multicollinearity Test**

Table 7. Multicollinearity Test Data

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	AKO (X1)	,827	1,209
	ROA (X2)	,218	4,582
	ROE (X3)	,247	4,056
	Laba per Saham (X4)	,713	1,403

Source: SPSS output data (2020)

The table above shows that the value is tolerance> 0.100 and the VIF value is <10, this indicates that the regression model does not have multicollinearity between the independent variables.

 3. **Heteroscedasticity Test**

Figure 1. Scatterplot Heteroscedasticity
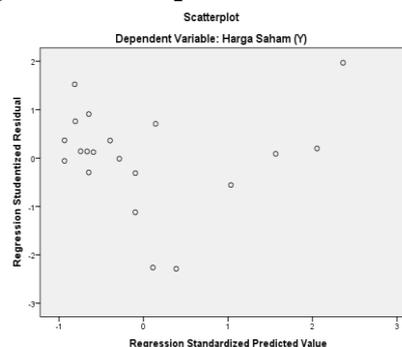
Source: SPSS output data (2020)

Based on the picture above, there is no heteroscedasticity because there is no clear pattern in the scatterplots image, and the points spread above and below the 0 on the Y axis.

 4. **Autocorrelation Test**

Table 8. Autocorrelation Test Data

Model	R	R Square	Durbin-Watson
1	,908a	,824	2,157

Source: SPSS output data (2020)

Based on this table, this study has no autocorrelation symptoms if the Durbin Watson (DW) value lies between du to (du-4) du 1.8283 <Durbin Watson 2.157 <2, 1717.

Hypothesis testing
 1. **T Statistical Test**

Table 9. T Statistical Test

Model	t	Sig.
(Constant)	-1,247	,232
AKO (X1)	,036	,971
ROA (X2)	6,625	,000
ROE (X3)	-5,729	,000
Laba per Saham (X4)	2,025	,061

Source Data: SPSS output data (2020)

 a. First Hypothesis

Based on the table above the operating cash flow variable has a significance value of 0.971 so this variable has no effect on stock prices and the t value is 0.036, the t value is smaller than the t table of 2.13145, so it can be concluded that the operating cash flow does not have a significant effect on stock prices in the banking sample used in the study.

b. Second Hypothesis

Based on the table above, the variable *Return on Asset* has a t count of 6.625, this t count is greater than the t table of 2.13145 and a significance level of 0.00 <0.05, so it can be concluded that *Return on Asset* has a significant effect on stock prices. in banking as the research sample.

c. Third Hypothesis

Based on the table above the variable *Return on Equity* has a t count of-5.729, this t count value is smaller than the t table which is 2.13145 and at a significance level of 0.00 <0.05, so it can be concluded that this variable has a significant effect on stocks. in banking as the research sample.

d. Fourth Hypothesis

Based on the table above, the variable earnings per share has a t value of 2.025, this t value is smaller than the t table of 2.13145 and at a significance level of 0.016 <0.05, so that earnings per share have a significant effect on shares in the banking sample used in the study.

2. Statistical Test F

Table 10. F Statistical Test

Model		df	F	Sig.
	Regression	4	17,570	,000[b]
1	Residual	15		
	Total	19		

Source: SPSS output data (2020)

Based on the opinion of (Ghozali 2013) the value of Sig. <0.05 or if F count> F table, it means that the independent variable (X) simultaneously affects the dependent variable (Y) F count 17.570> F table 3.01 and a sig value 0.00 <0.05.

So, it can be concluded that the independent variable consisting of current operating cash, *Return on Asset, Return on Equity* and earning per share has an effect on the stock price of the banks used as the research sample

The Coefficient of Determination (R^2)
Table 11. The Coefficient of Determination (R^2)

Model	R	R Square	Adjusted R Square
1	,908[a]	,824	,777

Source: SPSS output (2020)

Based on the above table it can be seen that the coefficient of determination looks at the value *of Adjusted R Square* of 0.824 or 82.4%. This means that 82.4% of the variable variation on stock prices is explained by variations in operating cash flow, ROA, ROE, and earnings per share. The remaining 17.6% is explained by other factors not examined in this study.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS
Conclusion and Implication
The conclusions of the research on the effect of operating cash flow and profitability ratios on stock prices are as follows:

1. Based on the results of research on the effect of operating cash flow and probability ratios (ROA and ROE) and earnings per share, cash flow variables become variables that do not affect stock prices in the banking sector.
2. The results showed that the level of profitability ratios has a significant effect on stock prices on the IDX
3. The earning per share variable is one of the variables that also affects stock prices in the banking sector. It is also based on hypothesis testing, namely the T test
4. Simultaneously, operating cash flow variables, *Return on Aset, Return On Equity* and Earning per share has an effect on the stock price of banks on the IDX by 82.4% and for 17.6% it is explained by other factors that cause changes in share prices which are not examined in this study.

Suggestions
Suggestions for this research are as follow:

1. It is expected that further researchers can add the number of samples and population in the study as well as independent variables such as currency exchange rates and interest rates.
2. It is hoped that further researchers can add companies or sectors other than companies in this study.

Limitations
The limitations of this study is that the researcher only uses four banking sectors as the reserch sample. Then this study only examines the effect of operating cash flow and profitability

ratios on stock prices in the banking sector without any moderating variables in the study.

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