

Macro Variable Influence and Company Fundamental Factors against Changes in Go Public Banking Stock Prices on the In-donesia Stock Exchange for the Period 2004-2007 (Case Study on Bank Danamon, Bank BRI, Bank BCA, Bank UOB Indonesia, Bank Niaga and Bank Saudara)

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*Abstract---*The purpose of this study is to determine the effect of macroeconomic factor and company fundamental factor towards changes in banking stock prices, using explanatory. Unit of analysis of this study is bank that listed in Indonesian Stock Exchange. Populations of this study are stock price, ROA, LDR for 5 year that divide to semester and inflation and gross domestic product. This study is stock price, ROA and LDR for 6 banking for 5 years. The results of this study indicate that there are significant simultaneously effect between macroeconomic factor and company fundamental factor towards changes in banking stock prices. Partially macroeconomic factor has positive influence on banking stock prices, as well as company fundamental factor which is partially positive influence on banking stock prices.

*Keywords---*Inflation, Macroeconomic Factor, Fundamental Factor, Loan to Deposit Ratio, Return on Asset, Gross Domestic Product

I. INTRODUCTION

Based on Rose (1999: 7), Banks are financial-service firms, producing and selling professional management of the public fund as well as performing many other roles in economy.

Macro variables are defined as the company's external financial factors. This variable consists of several elements including inflation and gross domestic product. The reason for the selection of gross domestic product in addition to the recommendations of several previous studies, this variable is also the result of the calculation of other macro variables such as interest rates.

Gross Domestic Product is the name that we give to the total market value of finished goods and services produced in a country during a given year. GDP is the most extensive measurement of the total output of a country's

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goods and services. This is an amount of IDR. Consumption, Gross Investment, government spending on goods and services, and net exports produced in a country for a given year.

The company's fundamental factors are defined as the company's internal financial factors. These factors consist of analysis of financial statements and guidelines for calculating ratios according to Bank Indonesia.

The ratio that must be determined by and reported to the regulator (from Bank Indonesia), namely: Capital Adequacy Ratio, Assets Against Capital, Problematic earning assets, NPL, PPAP on earning assets, Return On Assets, Return On Equity, Net Interest Margin, Operational Costs, Loan to Deposit Ratio and Obligatory Demand Deposit

The Capital Market in a narrow sense is an organized place where securities are traded or an organized system that brings together sellers and buyers of securities carried out either directly or through their representatives.

The valuation of a stock can be done using a fundamental approach, namely that the stock price is a reflection of the value of the company concerned and or is the influence of macro variables.

II. LITERATURE REVIEW

Based on the research of Tandelilin (1997) stated that macro variables that influence changes in stock values are economic growth, interest rates, and inflation rates. Whereas based on the suggestion of Adler Haymans Manurung and Widhi Indratmo Nugroho (2005) research that further research uses Gross Domestic Product (GDP) and the Rupiah exchange rate against US \$. The following figure shows the relationship between the BI rate, GDP index and the Composite Stock Price Index (CSPI).

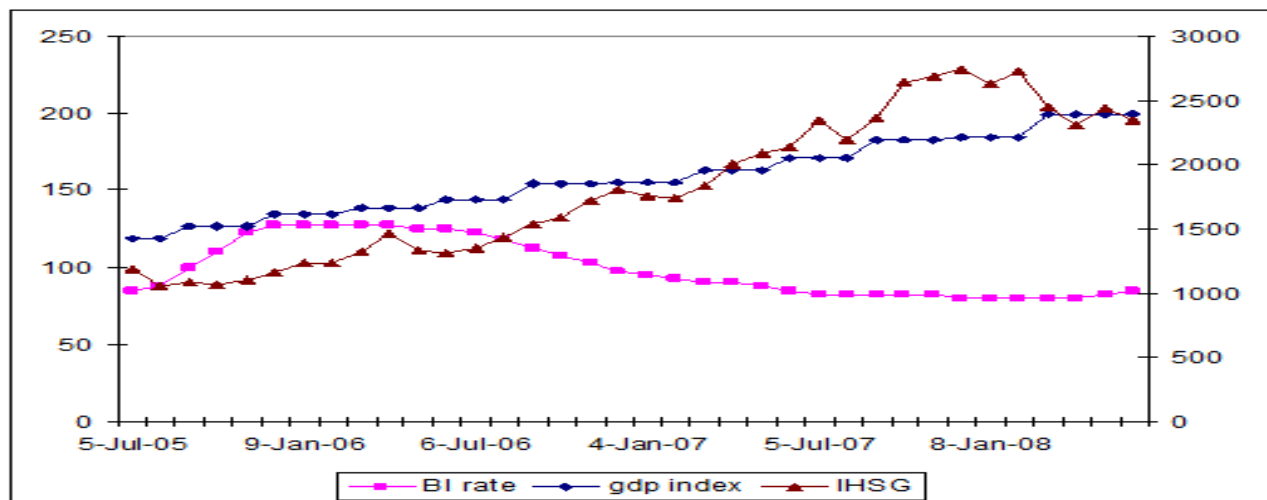


Figure1:The movement of the BI Rate and the relative Gross Domestic Product Index Composite Stock Price Index (IHSG)

Research related to the title submitted by the author has been examined by previous researchers with the following details:

(a). The results of Natarsyah's research (2000: 308) show that fundamental variables together have a significant effect on beta. While partially the fundamental variables that have a significant effect are return on assets, debt to capital ratio and stock book value.

(b). While based on Doddy Setiawan's research (2003: 565) regarding the analysis of fundamental factors that influence systematic risk before and after the monetary crisis that its influence before and during the monetary crisis shows inconsistent results. Fundamental factors simultaneously have an influence on beta in the period before the monetary crisis while during the monetary crisis fundamental factors do not have a significant effect (Saudi, 2018).

(c). Research conducted by Tandelilin (1997: 101) did not succeed in proving the effect of macroeconomic variables on the beta in the period before the monetary crisis.

(d). Research conducted by Alder Haymans Manurung and Widhi Indratmo Nugroho (2005: 13) regarding the effect of macro variables on the relationship of "Conditional Mean and Conditional Volatility" of the JCI shows that at a certain level of significance only SBI interest rates and inflation affect the JCI return rate and only tribes SBI interest. Therefore the monetary policy carried out by the Government in the period 1997 to 2004 did not affect the rate of return and risk contained in the composite stock price index (CSPI).

III. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Tandelilin (1997), Manurung and Nugroho (2005) shows that the effect of inflation has no impact towards changes in banking stock prices but the opposite is true of gross domestic product which has a positive impact towards changes in banking stock prices. Therefore the authors take the following hypothesis:

- H1: The effect of inflation has no positive impact towards changes in banking stock prices.
- H2: The effect of gross domestic Product has positive impact towards changes in banking stock prices.

Natarsyah's (2000) and Doddy Setiawan's (2003) shows that the effect of fundamental factor in this case Return On Asset and Loan to Debt Ratio have impact towards changes in banking stock prices. Therefore the authors take the following hypothesis:

- H3: The effect of Return on Asset has impact towards changes in banking stock prices.
- H4: The effect of Loan to Deposit Ratio has impact towards changes in banking stock prices.

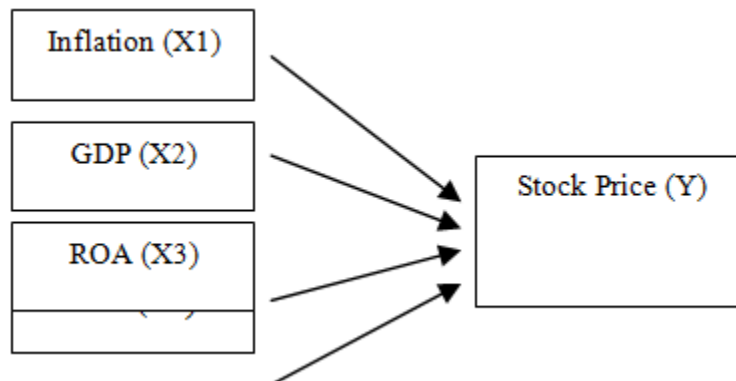


Figure 1: Theoretical Framework

IV. METHOD AND FINDING

IV.I. Method

The method used in this study is an explanatory method. The variables contained in this study are divided into:

- a. The independent variable or X variable is macro variables and company fundamental factors.
- b. Dependent variable or Y variable is a change in the Go Public banking stock price for the period 2004 - 2007.

The data obtained by the author comes from library research which is a research in which the material is obtained from books relating to, among others, Theory of Macro Economics, Financial Management, Banking and Capital Markets. Apart from books, the author also reads scientific journals such as the National Symposium on Accounting, the University's Internal Journal or other scientific readings which the authors consider to have a relationship with research.

Collection techniques through reading scientific literature, downloading the internet on official Government websites that are related to macro variables and the fundamental factors of the company concerned and other relevant information search sites such as Yahoo finance. The econometric model used in this study is a multiple linear regression model with the Ordinary Least Square (OLS) method. This model is used to analyse the influence of independent variables on the dependent variable (multiple variable) is a multiple regression model (multiple regression method) using panel data, which is a combination of time series data and cross section. What is meant by panel data here is data from observations of different entities (various banks) where the variable is measured over a number of years.

There are 3 (three) classic assumptions that must be tested related to the estimation process of the least squares method (Ordinary Least Square), to find out whether the estimation results are the best Linear Unbiased Estimation

(BLUE) or not. The three classic assumptions are: (1) There is no multicollinearity between independent variables, (2) No heteroscedasticity occurs, and (3). There are no serial correlations between sequential residuals. The relationships between variables are seen with multiple regression analysis and hypothesis simultaneous testing (F test).

IV.II. Finding

In Table 1, the description of the macro variables for the 2004-2007 periods is known that inflation in 2004 decreased in the second semester from 7.2 to 6.40, but in 2005-2006 inflation increased by 7.42. Inflation in 2005 surged dramatically in the second semester of 17.11. Inflation declined again in 2006-2007. While for the macro variables GDP for the period 2004-2007 continues to increase.

Table 1: Macro Variable Period 2004-2007

Year	Semester	Macro	
		Inflation	GDP
2004	I	7,20	2260,11
	II	6,40	2295,40
2005	I	7,42	2754,80
	II	17,11	2785,40
2006	I	15,53	3295,56
	II	6,60	3338,20
2007	I	5,77	3915,65
	II	6,59	3957,40

Table 2: Fundamental Variables and Stock Price Variables BDMN

Year	Semester	Stock Price	Fundamentals	
			ROA	LDR
2004	I	2825	4	63
	II	4375	5	72
2005	I	5050	4	77
	II	4750	4	80
2006	I	3975	0	22
	II	6750	2	75
2007	I	6900	0	29
	II	7950	3	88

Table 2 shows the share price of the State-Owned Trade Bank (BDMN) for the period 2004-2007 continued to increase. In 2004-2005 the share price rose from 4375 to 5050. But until the first semester of 2006 the BDMN share price declined. Re-increase occurred in the second semester of 2006 until the semester of 2007.

In 2007 BDMN ROA fluctuated, but if we pay attention, the BDMN ROA has decreased over the period 2004-2007. For the LDR during the 2004-2007 periods, the BDMN LDR increased except in the first semester of 2006 it dropped dramatically to 22% and the first semester of 2007 fell to 29% and rose again in the second semester of 2007 to 88%.

Table 3: Fundamental Variables and Stock Price Variables BBRI

Year	Semester	Stock Price	Fundamentals	
			ROA	LDR
2004	I	1675	5	69
	II	2875	5	75

2005	I	2900	4	77
	II	3025	5	77
2006	I	4100	4	76
	II	5150	4	72
2007	I	5750	4	72
	II	7350	4	68

Table 3 shows BBRI stock prices for the period 2004-2007 continued to increase. In 2004-2005 the share price rose from 1675 to 3025. A quite dramatic increase occurred in the second semester of 2006 to the 2007 semester of 7350. In 2007 the ROA of BBRI decreased and tended to be stable during the period 2004-2007. While the LDR BBRI has a stagnant condition, meaning that there are no significant changes. When seen in the LDR BBRI 2004 table, it is the same as the LDR BBRI in 2007.

Table 4: Fundamental Variables and Stock Price Variables BBKA

Year	Semester	Stock Price	Fundamentals	
			ROA	LDR
2004	I	1875	3	27
	II	2975	3	30
2005	I	3600	3	34
	II	3400	3	41
2006	I	4100	3	39
	II	5200	3	40
2007	I	5450	3	40
	II	7300	3	43

Table 4 shows the price of BCA shares in the period 2004-2007 continued to experience a significant increase. In 2004-2005 the stock price rose from 1875 to 3400. A quite drastic increase occurred in the second semester of 2007 amounting to 7300. In 2007 BBKA ROA experienced a stagnant condition, meaning there was no increase or decrease in ROA, while BBKA LDR has increased from 2004 to 2007.

Table 5 shows the price of BUOB stock in the period 2004-2007 continued to increase. In 2004-2005 the share price rose from 600 to 950. A quite dramatic increase occurred in the second semester of 2007 to the semester of 2007 of 1030. In 2004-2005 BUOB ROA rose 1% from 2% to 3%. Whereas in 2006-2007 tended to be stable there was no increase or decrease in ROA, while the LDR BUOB has increased from 2004-2007.

Table 5: Fundamental Variables and Stock Price Variables BUOB

Year	Semester	Stock Price	Fundamentals	
			ROA	LDR
2004	I	600	2	47
	II	825	2	58
2005	I	840	3	76
	II	950	3	79
2006	I	920	3	79
	II	970	3	83
2007	I	980	3	93
	II	1030	3	95

Table 6 shows BNGA stock prices for the period 2004-2007 continued to increase. In 2004-2005 the share price rose from 300 to 405. A quite dramatic increase occurred in the second semester of 2006 to the 2007 semester of 900. In 2002-2003 BNGA ROA tended to be stagnant. From 2004-2005 BNGA ROA fell 1% from 3% to 2%. While

2003-2007 tends to be stable, there is no increase or decrease in ROA, whereas LDR BNGA has increased from 2004-2007.

Table 6: Fundamental Variables and Stock Price Variables BNGA

Year	Semester	Stock Price	Fundamentals	
			ROA	LDR
2004	I	300	3	78
	II	460	2	85
2005	I	435	2	93
	II	405	2	85
2006	I	550	2	90
	II	920	2	84
2007	I	820	2	95
	II	900	2	92

Table 7 shows the price of the shares of Bank Saudara in the period 2006-2007 decreased by 34 from 180 to 148. For your bank's ROA it tended to fall 2% compared to 2004 to 2007. In 2004-2005 ROA fell 4% from 5 % to 1%. Then it rose again to 3% in 2007. But the increase in ROA remained not the same as in 2004, while your Bank's LDR tended to increase steadily from 2004-2007.

Table 7: Fundamental Variables and Stock Price Variables Saudara

Year	Semester	Stock Price	Fundamentals	
			ROA	LDR
2004	I	100	5	90
	II	105	3	89
2005	I	120	1	83
	II	130	1	87
2006	I	150	2	96
	II	180	2	84
2007	I	162	3	90
	II	148	3	93

Table 8: Coefficient of Determination

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.743 ^a	.552	.511	1681.17664

a. Predictors: (Constant), LDR, Inflation, ROA, GDP
 b. Dependent Variable: Stock Price

Table 8 shows that the results of the correlation between inflation, gross domestic product, return on assets and loan to debt ratio with banking stock price is 0.743, it can be concluded that the relationship between inflation, gross domestic product, return on assets and loan to debt ratio with banking stock price is in the strong category. As for the determinant coefficient, the result is 0.552. This shows that inflation, gross domestic product, return on assets and loan to debt ratio contribute 55.2% in influencing banking stock price, and the remaining 44.7% is influenced by other factors not examined in this study.

Table 9: ANOVA (Uji F) Results

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.556	4	37473977	13.259	.000 ^b
	Residual	15.487	43	2826354.9		
	Total	32.043	47			
a. Dependent Variable: Stock Price (Y)						
b. Predictors: (Constant), LDR, Inflation, ROA, GDP						

Table 9 shows the value of F calculated with $df_1 = 4$ and $df_2 = 43$ is $= 13.259$ with $sig = 0,000$. Testing by comparing $sig = 0,000$ with $\alpha = 5\%$ (0.05) then there is not enough reason to accept H_0 and H_1 is accepted. If the test compares $F_{count} = 13.259 > F_{Table}$ with $df_1 = 4$ and $df_2 = 43$ at $\alpha = 5\%$ is $= 2.59$ then there is a joint effect between macro and fundamental variables on stock prices. This means that between inflation, gross domestic product, return on assets and loan to debt ratio simultaneously influence banking stock price.

Table 10: Multiple Linear Regression Results

Variabel	Coefficient (B)	SE
Constanta	-1085,08	1,792,612
Inflation	-5,774	16,987
PDB	1,987	0,415
ROA	819,559	218,928
LDR	67,973	11,696

From Table 10, the multiple regression equation obtained for the research data used is as follows: $Y = -1085.08 - 5,774 X_1 + 1,987 X_2 + 119,559 X_3 + 67,973 X_4$.

Table 10: T-test results of macro variables and fundamental variables on stock prices

Variable	t _{count}	T _{Table}	Hasil Pengujian
Inflation	-3,399	-2,01	Ho rejected
PDB	4,791	2,01	Ho rejected
ROA	3,744	2,01	Ho rejected
LDR	-5,811	-2,01	Ho rejected

To test the hypothesis the effect of inflation with stock prices is obtained by $t_{count} = 3,399 < t_{table} = -2.01$, then H_0 is rejected, meaning that there is a strong influence between inflation and stock prices.

To test the hypothesis the influence between GDP and stock price is obtained $t_{count} = 4.791 > t_{table} = 2.01$, then H_0 is rejected, meaning that there is a strong influence between GDP and stock price.

To test the hypothesis the influence between ROA and stock price is obtained $t_{count} = 3.744 > t_{table} = 2.01$, then H_0 is rejected, meaning that there is a strong influence between ROA and stock price.

To test the hypothesis the influence of the LDR with stock prices is obtained $t_{count} = -5.811 < t_{table} = -2.01$, then H_0 is rejected, meaning that there is a strong influence between GDP and stock prices.

V. CONCLUSION

Based on statistical calculations, there is a strong and significant influence between macro variables and fundamental factors on stock prices. The influence of macro variables and fundamental factors on the stock price is

51.1% while the rest is influenced by other factors of 48.9%. Based on statistical calculations for testing partially there is a strong influence between Inflation, GDP, ROA, and LDR on stock prices.

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