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**Comparison of Inflation and Economic Growth as
Monetary Policy Targets in Indonesia for The Period
2002-2021**

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Abstract: This study aims to analyze the effectiveness of Indonesian monetary policy from 2002 to 2021 by comparing the ultimate target of Indonesian monetary policy as a measure of the effectiveness of the transmission mechanism in this research, which is GDP and Inflation. The data used in this study is secondary data, and the form data is quarterly. Gross Domestic Product (GDP), Inflation Rate, BI Rate, and money supply are among the time series data. The Multiple Linear Regressions analysis tool was used in this study to examine how the real sector responds to government policies in the long term. From the result of the Multiple Linear Regression on Model I GDP as a Dependent variable obtained, the BI Rate significantly negatively impacts Indonesia's GDP, and the Money Supply positively impacts Indonesia's GDP. Results on Model II Inflation Rate as dependent variable obtained are that the BI Rate and Money Supply have a significant positive correlation on Indonesia's inflation rate. As a result, monetary policy has a faster response in GDP than the target inflation rate. Therefore, the Indonesian Monetary Authority, Bank Indonesia, will be able to maintain the stability of the interest rate (BI Rate) and increase the money supply in society to encourage increased economic growth in Indonesia. Bank Indonesia is expected to maintain the stability of interest rates and control the money supply to help maintain the stability of the inflation rate in Indonesia.

Keywords: Monetary Policy; Gross Domestic Product; Inflation Rate; BI Rate; Money Supply

Introduction

The monetary system is one of the most crucial parts of the economy, and economic growth analysis is impossible without considering financial problems (Salim et al., 2017). A critical component of macroeconomic management was debatable in the scope of

monetary policy, which is one of the economic variables that promote stability and welfare: economic growth or low inflation. Bank Indonesia can implement monetary by setting targets (Indonesia, 2014; Warjiyo et al., 2019), and the primary purpose is to control price stability. Does it mean that controlling inflation is more important than reaching economic growth?

Economic growth is one of the crucial indicators to see economic development progress in a country. The economic development of a country will be seen from its economic growth. According to Mankiw (Gregory Mankiw, 2012; Nopeline & Si, 2019), economic growth is driven by income that continues to grow when a country's consumption of goods and services increases. The process of increasing a country's real gross domestic product (GDP) is called economic growth, so the economy grows when the real product also increases. Economic growth indeed can not be separated from the intervention of the government policy implementation (Arsyad, 2014).

The Indonesian economy also influences inflation and vice versa. Inflation has quite a lot of impacts on a country's economy, one of which is that inflation can erode people's purchasing power (Pardede & Zahro, 2017). If this condition decreases purchasing power, people will shop more economically. In fact, one of the driving forces of a country's economy is supported by public consumption (Batarseh, 2021). High inflation will weaken people's purchasing power, especially domestic production, which can further reduce people's confidence in the value of the national currency (Hervino, 2011; Woodward, 2014) (Pasaribu et al., 2020).

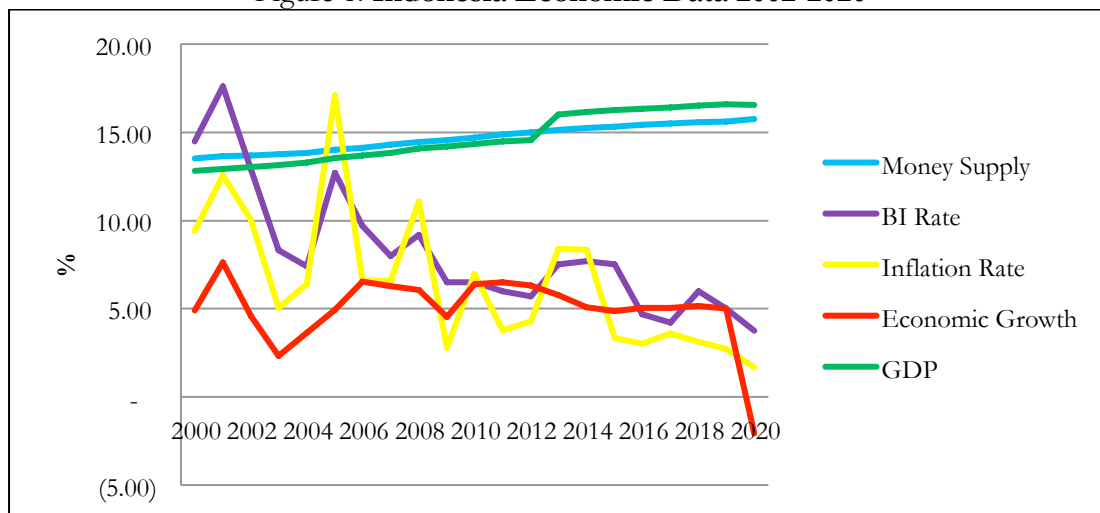
The occurrence of inflation in Indonesia has been triggered by the weakening of the rupiah exchange rate against the US dollar since August 14, 1997. The exchange rate system adopted by Indonesia is a free-floating exchange rate system, which means that the exchange rate will be formed and fully submitted to the market mechanism based on the market's law of supply and demand (Abbott et al., 2012). A stable economy is better than an economy that experiences fluctuations. Therefore, the significance of regulating inflation stems from the fact that excessive and unpredictable inflation has a detrimental impact on the socio-economic conditions of the community, so it is necessary to carry out targeted controls so that inflation can be overcome and the economy can run stably (Doan Van, 2020) (Bick, 2010).

At the end of 2019, the world was shocked by an incident that was suspected to be a case of pneumonia whose cause was unknown; the initial discovery of this virus occurred in the city of Wuhan, China. Until now, the entire world community is still dealing with the spread of the Corona virus SARS-COV2, more often called Covid-19. The Covid-19 virus outbreak, in addition to causing problems in the health sector, also caused new problems in various fields of life, such as environmental problems, education, and the country's economy was no exception.

According to the data from the official statistician No. 64/08/Th.XXIII, 5 August 2020, Indonesia's economic growth fell by 5.07% in the first quarter of 2019 and continued to fall significantly until the second quarter of 2020, reaching -5.32%. Indonesia's economic growth slowed with the country's interest rate (BI Rate) and inflation rate. Furthermore, the rupiah's exchange rate against the US dollar has continued to fall since the beginning of the year. However, the money supply in Indonesia continues to grow. Based on the graph

above, it is clear that not all monetary policy variables exhibit the same trend; thus, the research intends to investigate which monetary policy variables will influence economic growth and the inflation rate in Indonesia.

Figure 1. Indonesia Economic Data 2002-2020



Sources: Statistic Indonesia and Bank Indonesia (BI)

Based on studies conducted in Indonesia that examined the efficacy of the country's monetary policy for the years 1990–2021, the findings indicated that monetary policy enhanced economic growth through the channels of interest rate and money supply, with a strong and valid correlation found over both the short and long (Pasaribu et al., 2023; Purnomo et al., 2020). On the other side, the research examined how the money supply, BI rate, rupiah exchange rate, and financial inclusion affected Indonesian inflation was found that the independent variables correlated with the inflation rate in (Burhanuddin & Nasrudin, 2016; Insukindro & Sahadewo, 2010; Sriyana, 2018).

The research from other countries such as that has been conducted in Lao PDR (Srithilat et al., 2022), Nigeria (Fasanya et al., 2013), Sri Lanka (Amarasekara, 2009), Pakistan (Mehvish, 2018) and Vietnam (Sang, 2019) it was found that monetary policy effectively influenced economic growth. Meanwhile in Brazil (Minella, 2003), Nigeria (Onwachukwu, 2014), and Sri Lanka (Amarasekara, 2009) found that monetary policy was able to control the inflation rate. This raises the question of whether the central bank's monetary policy instruments can influence the value of economic growth and the inflation rate in Indonesia. Of course, the monetary policy tools themselves must be observed in the context of Indonesia's economic recovery during the epidemic. This study aims to see whether monetary policy is effective in influencing economic growth in Indonesia in the 2002-2021 period and whether monetary policy is effective in controlling the inflation rate in Indonesia in the 2002-2021 period.

Literature Review

Monetary Policy

Monetary policy refers to the activities of the central bank or monetary unit to control monetary quantities to stabilize the economy. Monetary policy is the management of

money and interest rates to influence economic variables important for our economic well-being and an instrument for achieving policy goals. The process is defined as the economy's reaction to changes in monetary policy, starting with changes in policy instruments and ending with the full adjustment of the economy to monetary policy (Cargil in Nopeline & Si, 2019).

Monetary policy is a policy followed by the monetary authority to affect aggregate demand and prevent economic volatility by managing the money supply and interest rates. Macroeconomic policy includes monetary policy. The policy supports macroeconomic objectives such as high economic growth, price stability, equitable development, and balance of payments. Monetary policy can set inflation targets, interest rates, and currency values. The central bank is the leading force in implementing monetary policy. Control of interest rates the central bank sets will affect consumption and investment activities that affect economic development. Changes in interest rates can also affect exchange rates (Bosworth, 2014).

Bank Indonesia, the central bank of Indonesia, which plays a role in the monetary sector, aims to achieve and maintain the stability of the Rupiah value as stipulated in UU Nomor 23 Tahun 1999 concerning Bank Indonesia and amended to UU Nomor 3 Tahun 2004 and UU Nomor 6 Tahun 2009 Pasal 7. Rupiah Stability which is meant to have two dimensions, namely the stability of the prices of goods and services as seen from the development of the inflation rate and the stability of the rupiah exchange rate against other country currencies (Do, 2019).

Monetary Policy Effectiveness

The Natural Rate Hypothesis and the Rational Expectation Hypothesis are two hypotheses on the efficiency of monetary policy. According to the Natural Rate Hypothesis, the effectiveness of monetary policy influences only the short term and not the long run. Meanwhile, the Rational Expectation Hypothesis explains why monetary policy is unsuccessful in the short and long run. (Pohan, 2008).

The speed or deadline (hour team) and variable strength on the monetary transmission line in response to the BI Rate shock until the ultimate objective is met are two indicators that may be used to determine the effectiveness of the monetary policy transmission mechanism. The speed indicator measures how long it takes for the variables along a route to respond to policy instrument shocks before reaching the ultimate aim of monetary policy (Natsir, 2018).

Economic Growth Theory

Based on the Solow-Swan Neoclassical theory developed by Robert Solow and Trevor Swan, the economy can grow as long as there is an increase in the proportion of Gross Domestic Product (GDP) and technological development so that productivity continues to increase. The Solow-Swan theory considers that the market mechanism can create a balance in many cases so that the government does not need to influence or interfere too much in the market. Government intervention is limited to fiscal policy and monetary policy (Muhafidin, 2020).

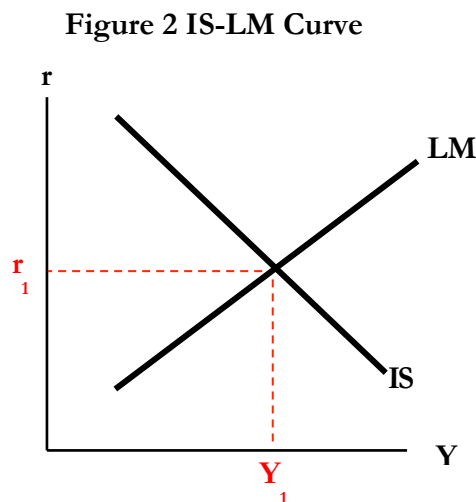
Economic growth is an increase in economic activity in terms of increased output and income. According to the theory of John Maynard Keynes, the main factor determining a country's economic performance and how to recover the economy is incorporating the government's role in the economy (Pasaribu & Septriani, 2021).

Inflation

Inflation can be interpreted as an increase in the price of goods and services in general and continuously within a certain period. An increase in the price of just one or two goods cannot be called inflation unless the increase extends (or causes price increases) to other goods. Inflation is an unavoidable economic problem. An increase in the price of goods and services causes a decrease in the currency's value. In addition, the money supply of services will also affect the inflation rate. According to the quantity theory of Irving Fisher, stated that inflation is caused by two factors, namely an increase in the money supply (JUB) and people's expectations that prices will rise. The greater the amount of money circulating in society, the higher the inflation. Therefore, the government should predict that inflation will occur if it creates additional new money printing (Doan Van, 2020).

The Relationship Between Monetary Policy and Economic Growth

According to the theory developed by John Maynard Keynes, namely the IS-LM approach which believes that money is a medium of exchange and also serves to gain profit (Seprillina, 2013). The IS-LM approach aims to show what influences national income at a given price level. The IS-LM approach assumes that prices do not change and considers the effect of monetary policy on economic performance only on the income side. Coordination between monetary policy, fiscal policy, and economic growth can be seen in the IS-LM balance where monetary policy plays an essential role in the economy (Atmojo, 2018).



The two parts of the IS-LM approach are the IS curve and the LM curve. The IS curve, which shows investment and saving, describes what is happening in the goods market. The curve above explains how the income level is affected by the interest rate in the goods market equilibrium. Any increase in the interest rate will cause investment to decrease, which means that the income level will also decrease, the curve sloping downwards. While the LM curve for liquidity and money supply. This approach explains how the interaction between the goods market and the money market affects the position and slope of the

aggregate demand curve to the level of national income in the short term. The curve above the LM curve shows the relationship between interest rates affecting income in the money market, where when interest rates are high, income levels are also high so that the shape of the LM curve slopes upward (Mankiw, 2012). The IS-LM approach explains how monetary policy can affect output; that is, economic growth develops based on the existence of a money market, which is determined by the supply and demand for money. Keynes believed that the monetary policy transmission could affect the real Gross Domestic Product.

The Relationship Between Monetary Policy and Economic Growth

The supply of money depends on the monetary base. An increase in the monetary base leads to a proportionate increase in the money supply. To control the money supply, the central bank will consider the interest rate that will be set. When the amount of money circulating in society is high, the central bank will increase interest rates so that people will save their money in banks so that money circulation will decrease, and vice versa (Precious & Palesa, 2014; Tan et al., 2020).

Methods

This study uses an explanatory research design. This study looks at 2 models of the effectiveness of Indonesia's monetary policy with the final target of Gross Domestic Product and Inflation in Indonesia as seen from the response from the cusum test squared and the required time or lag. In addition, it will analyze the interest rate variable (BI Rate) and the money supply in influencing the Gross Domestic Product and the Inflation Rate in Indonesia. Secondary data time series obtained from the official website of Bank Indonesia (BI) and Central Bureau of Statistics (BPS) are used in this study. The information gathered includes the interest rate (BI Rate), the money supply (M2), the GDP at constant prices in 2010 as the base year, and the inflation rate. The data used are quarterly from the first quarter of 2002 to the fourth quarter of 2021.

The Multiple Linear Regression technique is used in this study. Multiple Linear Regression is a time series data regression technique used to examine the relationship between dependent and independent variables. To analyze the relationship between variables, classical assumption tests such as normality tests, multi-linearity tests, heteroscedasticity tests, multiple linear regression tests, and additional tests to support the research results, namely the optimum lag test and cusum test squared. The data can be processed using the E-Views program, and the equation model can be written in the following equation:

Model I:

$$\begin{aligned} \text{GDP} &= f(\text{BIRATE}, \text{MONEYSUPPLY}) \\ \text{GDP} &= \text{BIRATE} + \text{MONEYSUPPLY} \end{aligned}$$

Where:

GDP	= Gross Domestic Product
BIRATE	= Interest Rate
MONEYSUPPLY	= Money Supply (M2)

Model II:

$$\text{INF} = f(\text{BIRATE}, \text{MONEYSUPPLY})$$

$$INF = BIRATE + MONEYSUPPLY$$

Where:

- INF = Inflation Rate
- BI RATE = Interest Rate
- MONEYSUPPLY = Money Supply

Findings

The study's findings are divided into several sections explaining the data processed to support the research. Several sections will be discussed, including the descriptive statistical, the results of multiple linear regression using E-Views 9, and a discussion of the influence of the independent variable on the dependent variable, namely model I BI Rate and Money Supply on Indonesia's GDP, and model II BI Rate and Money Supply on Indonesia's Inflation Rate. Before performing multiple linear regression, a good research model must pass the classical assumption test. A test is required so that the obtained results are not biased and can be accounted for.

Descriptive Statistical

Tabel 1. Descriptive Statistical Test Results

	GDP	INF	BI_RATE	MONEYSUPPLY
Mean	1918354.	6.084125	7.294000	9705819.
Median	1868715.	5.695000	6.880000	8453936.
Maksimum	2845859.	17.790000	16.760000	22935477
Minimum	1093427.	1.430000	3.500000	2499997.
Std. Dev.	552330.7	3.590182	2.677070	6036890.
Observation	80	80	80	80

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

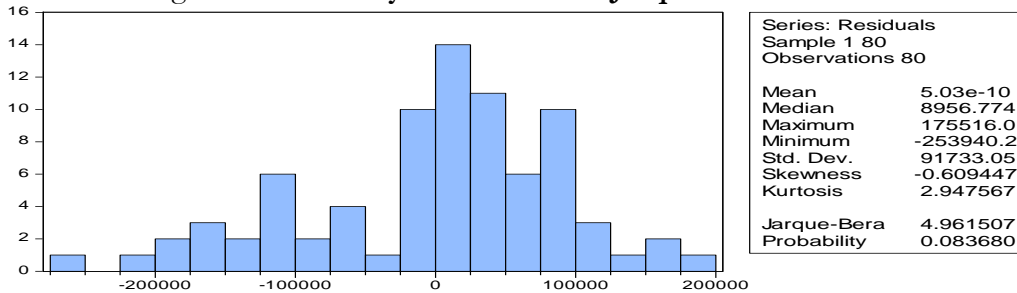
Classical Assumption

Normality Test

The normality test determines whether or not the dependent and independent variable regression models are normally distributed. A good model is one with a normally distributed data set. The Jarque-Bera test, which determines whether data is normally distributed or not, was used in this study to test for normality. Detection using Jarque-Bera asymptotic (large sample and based on residual Ordinary Least Squared) (Gujarati, 2009). The decision criterion is that if the Jarque-Bera probability is greater than 0.05, the data is said to be normally distributed.

The model I (GDP as dependent variable).

Figure 3. Normality Test Results – Jarque-Bera Model I

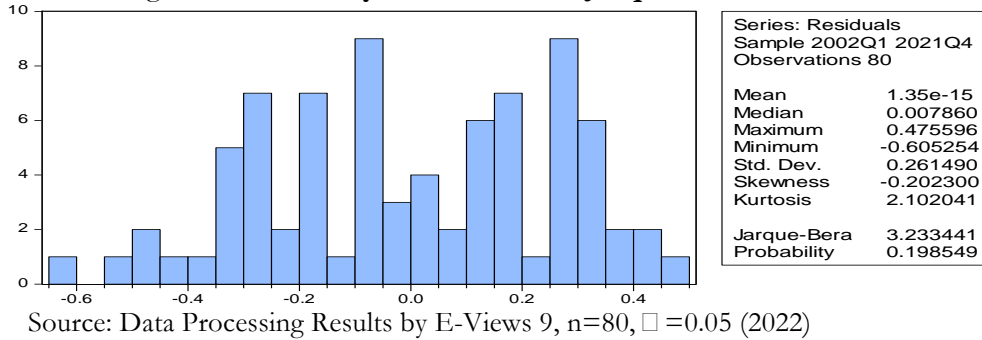


Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Based on Figure 2, the Jarque-Bera 0.084 means > 0.05 , so it can be concluded that the data used in this study with GDP as the dependent variable has been normally distributed.

The Model II (Inflation as dependent variable)

Figure 4. **Normality Test Results – Jarque-Bera Model II**



Based on Figure 3, the probability Jarque-Bera 0.20, it can be concluded that the data used in this research has a normal distribution because it is larger than 0.05.

Multicollinearity Test

The multicollinearity test is used to examine the linear relationship that exists between the independent variables in a regression model. Testing for multicollinearity symptoms can be done by calculating the Variance Inflation Factor (VIF) from the previous estimation results. If $VIF = 10$, there is no multicollinearity between independent variables (Ghozali & Ratmono, 2017).

Table 2. **Multicollinearity Test Results Model I (GDP as Dependent Variable)**

Variable	Coefficient Variant	VIF Not Centralized	Centralized VIF Centralized
BI_RATE	35153726	19.63556	2.305313
MONEYSUPPLY	6.91E-06	8.339664	2.305313
C	4.29E+09	39.75466	NA

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

It can be seen that each independent variable has a value of VIF centralized less than 10, implying that the model with GDP as the dependent variable is free of multicollinearity issues.

Table 3. **Multicollinearity Test Results Model II (Inflation as Dependent Variable)**

Variable	Coefficient Variant	VIF Not Centralized	Centralized VIF Centralized
BI_RATE	35153726	19.63556	2.305313
MONEYSUPPLY	6.91E-06	8.339664	2.305313
C	4.29E+09	39.75466	NA

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Heteroscedasticity Test

There are several methods for testing heteroscedasticity in heteroscedasticity testing, including Breusch-Pagan-Godfrey, Harvey, Glejser, ARCH, White, and others. The

Breusch-Pagan-Godfrey method was used in this study. The outcomes obtained are as follows:

Table 4. **Heteroscedasticity Test Results – Breusch-Pagan-Godfrey Model I (GDP as Dependent Variable)**

Composition	Value
F-Statistik	0.1823
Prob. F (2,77)	0.8337
Prob. Chi-Square (2)	0.8282
Prob. Chi-Square (2)	0.6771

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Based on the results of the heteroscedasticity test in model I, where this value is greater than 0.05, it can be concluded that the data in model I is free of the problem of heteroscedasticity.

Table 5. **Heteroscedasticity Test Results – Breusch-Pagan-Godfrey Model II (Inflation as Dependent Variable)**

Composition	Value
F-Statistik	0.4034
Prob. F (2,77)	0.6694
Prob. Chi-Square (2)	0.6605
Prob. Chi-Square (2)	0.8092

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

The probability value in the heteroscedasticity test of model II is 0.6605, indicating that the data used in this model II avoids the heteroscedasticity problem because the value is greater than 0.05.

Hypothesis Testing Results

In this study, hypothesis testing includes the Simultaneous Significance Test (F test), the Partial Significance Test (T-test), and the Coefficient of Determination Test (R²). Based on data processing performed with E-Views, the following estimation linear multiple regression results are shown in Tables 5 and 6.

Table 6. **Results of Multiple Regression Processing Model I (GDP as Dependent Variable)**

Variable	Coeffisien	Std. Error	t-Statistic	Probabilities
BI_RATE	-16762.35	5929.058	-2.827153	0.0060
MONEYSUPPLY	0.084496	0.002629	32.13676	0.0000
C	1220520.	65500.26	18.63382	0.0000
R-squared	0.972416	F-statistic		1357.250
Adjusted R-squared	0.971700	Prob(F-statistic)		0.000000

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

1. Test Significance Simultaneous (F-Test)

Based on the calculations that have been carried out, the calculated F value is 1357.250. It can be concluded that in this regression equation, the independent

variables (BI Rate and Money Supply) together have an influence that explains the variation of movement in the dependent variable (Gross Domestic Product)

2. Partial Significance Test (T-Test)

- a. The interest Rate (BI Rate) Variable affects Indonesia's GDP
- b. Money Supply (M2) Variable affects Indonesia's GDP

3. Coefficient of Determination Test (R²)

From the results of the regression coefficient, which was carried out on models of results Gross Domestic Product (GDP), it was obtained that the R² determination was 0.972416. BI Rate and Money Supply (M2) can explain 97% of the variation in Indonesia's Gross Domestic (GDP), while another factor outside the model explains the remaining 3%.

Table 7. Results of Multiple Regression Processing Model II (Inflation as Dependent Variable)

Variable	Coeffisien	Std. Error	t-Statistic	Probabilities
BI_RATE	1.214320	0.122999	9.872578	0.0000
MONEYSUPPLY	0.232693	0.469121	0.496019	0.6213
C	-6.464889	8.172792	-0.791026	0.4314
R-squared	0.756845	F-statistic		119.8349
Adjusted R-squared	0.750529	Prob(F-statistic)		0.000000

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

1. Test Significance Simultaneous (F-Test)

Based on the calculations result, regression variables (BI Rate and Money Supply (M2) together have an influence that explains the variation of movement in the dependent variable (Inflation Rate)

2. Partial Significance Test (T-Test)

- a. Interest Rate (BI Rate) Variable affects Indonesia's Inflation Rate
- b. Money Supply (M2) Variable does not affect Indonesia's Inflation Rate

3. Coefficient of Determination Test (R²)

From the results of the regression coefficient which was carried out on models of results Inflation Rate, the R² determination was 0.756845. BI Rate and Money Supply (M2) can explain 76% of the variation in Indonesia's Inflation Rate, while another factor outside the model explains the remaining 24%.

Determination of Length Lag Optimum

The criterion determining the length lag optimum in this research is the Akaike Information Criterion (AIC). The lag that has the smallest AIC value is the optimum lag. The result of the length lag optimum can be seen in the tables 7 and 8.

Table 8. **Determination of Length Lag Optimum Model I (GDP as Dependent Variable)**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-2261.815	NA	4.21E+23	62.91152	63.00638	62.94928
1	-1911.227	662.2201	3.19E+19	53.42298	53.80243	53.57404
2	-1888.065	41.82084	2.16E+19	53.02959*	53.69361*	53.29394
3	-1870.273	30.64257*	1.70E+19	52.78535	53.73396	53.16300*
4	-1861.675	14.09141	1.73E+19	52.79651	54.02971	53.28745
5	-1851.241	16.23018	1.68E+19	52.75669	54.27447	53.36092

Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Based on the determination of the length lag optimum in the table 7 for the model I the smallest AIC value is 53.02959 at lag 2. Therefore, the length lag optimum obtained is lag two. It can be concluded that the response of the other variables took place within 6 months after the change occurred.

Table 9. **Determination of Length Lag Optimum Model I (GDP as Dependent Variable)**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-199.7174	NA	0.051833	5.553902	5.648031	5.591414
1	153.4210	667.5767	4.17E-06	-3.874547	-3.498033	-3.724500
2	175.0583	39.12497	2.95E-06	-4.220774	-3.561875*	-3.958191*
3	180.2887	9.027899	3.29E-06	-4.117499	-3.176214	-3.742381
4	189.6656	15.41410	3.27E-06	-4.127825	-2.904155	-3.640171
5	207.1396	27.28815*	2.62E06*	-4.359989*	-2.853934	-3.759800

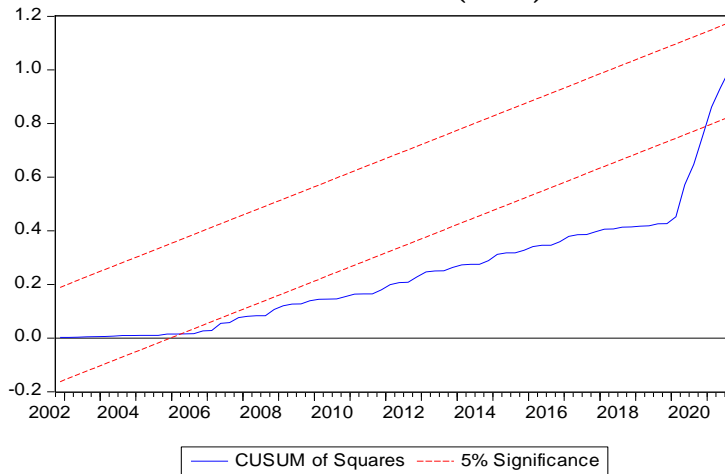
Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Based on the determination of the length lag optimum in table 7 for model I, the smallest AIC value is -4.359989 at lag 5. Therefore, the length lag optimum obtained is lag two. It can be concluded that the response of the other variables took place within 1 year and 3 months after the change occurred.

Monetary Policy in Indonesia

To see the pattern of monetary policy response to the Gross Domestic Product (GDP) and the inflation rate in Indonesia is most clearly seen when the Cusum Test Squares Value is out of the critical line. The analysis of structural changes in the monetary policy response function to Gross Domestic Product (GDP) occurred in the second quarter of 2006. This is indicated by the critical line that begins to move away and eventually exits the critical line, which can be seen in the figure below.

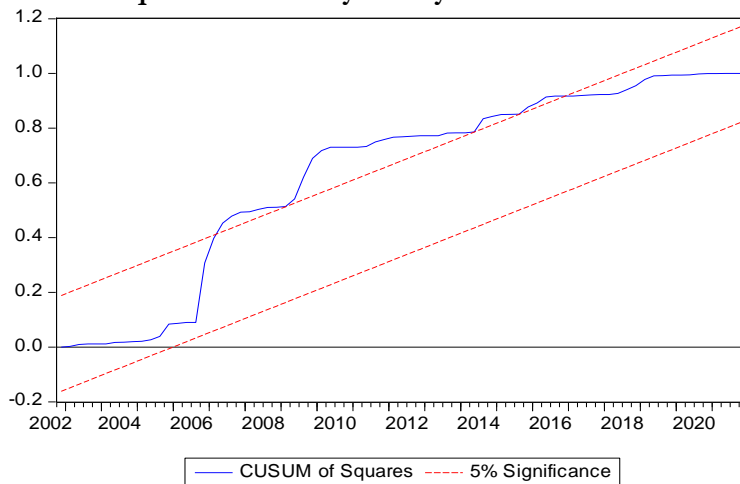
Figure 5. **Cusum Test Squares Monetary Policy Value on Indonesia's Gross Domestic Product (GDP)**



Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Meanwhile, changes in the structure of the monetary policy response function to the inflation rate occurred in the first quarter of 2007. This is indicated by the critical line starting to move away and eventually leaving the critical line as seen in Figure 5.

Figure 6. **Cusum Test Squares Monetary Policy Value on Indonesia's Inflation Rate**



Source: Data Processing Results by E-Views 9, n=80, $\alpha=0.05$ (2022)

Discussion

From the data processing that has been carried out using the multiple linear regression analysis method in E-Views 9, the regression equation for model I has been obtained as follows:

$$GDP = 12220520 - 16762.35BIRATE + 0.084496MONEYSUPPLY$$

The Effect of Interest Rate (BI Rate) on Gross Domestic Product (GDP)

The regression coefficient value for the BI Rate (X1) variables is 16762.35, according to the results of statistical tests. It demonstrates that the BI Rate has a significant impact on the

GDP variable in Indonesia. Furthermore, the BI Rate will reduce the Gross Domestic Product (GDP) by 16.76 trillion rupiahs. The probability value in the BI Rate is 0.0060. This means that the BI Rate's probability value is less than the significance level ($0.0060 < 0.05$), so H_0 is rejected and H_a is accepted. It means that these findings indicate that the BI Rate has a negative and significant impact on Indonesia's GDP. The findings of this study are consistent with John Maynard Keynes's theory. Namely the IS-LM approach, in which the IS curve explains how interest rates influence income levels in a negative relationship. Any increase in interest rates will reduce income levels.

The Effect of the Money Supply on Gross Domestic Product (GDP)

According to the statistical results, the regression coefficient value for the money supply variable (X2) is 0.0084496. This demonstrates that the money supply variable has a significant influence on the GDP variable in Indonesia. Furthermore, the variable amount of money in circulation has a positive sign on the value of the Gross Domestic Product in Indonesia, indicating that a 1% increase in inflation will increase GDP by 84 million rupiahs. The probability value in the money supply variable is 0.0000, which means that the probability value is less than the significance level ($0.0000 < 0.05$), so H_0 is rejected and H_a is accepted. These findings indicate that the money supply variable has a positive and significant effect on Indonesia's GDP. The findings of this study are consistent with the findings of (Fasanya et al., 2013) study, Does Monetary Policy Influence Economic Growth in Nigeria? according to (Utami, 2013) 's study, Analysis of The Effect of Monetary Policy on Economic Growth in Indonesia for the Period 2006-2010, the money supply variable has a significant positive effect on GDP, which means that the more money supply increases, the more GDP will increase. This is consistent with Keynes's theory that the money supply positively impacts output and economic growth.

From the data processing that has been carried out using the multiple linear regression analysis method in E-Views 9 and the equation for model II, the Inflation Rate as the dependent variable as follows:

$$\text{INF} = -6.464889 + 1.214320\text{BIRATE} + 0.232693\text{MONEYSUPPLY}$$

The Effect of Interest Rate (BI Rate) on Inflation

According to the results of statistical tests, the regression coefficient value for the BI Rate (X1) variable is 1.214320, indicating that the BI Rate significantly affects the inflation variable in Indonesia. Furthermore, the BI Rate has a positive sign on the value of inflation in Indonesia, indicating that a 1% in the BI Rate will increase inflation by 1.214320%. The variable BI Rate received a probability value of 0.0000, indicating that the BI Rate is less than the significance level ($0.0000 < 0.05$), so H_0 is rejected and H_a is accepted. It is possible to conclude that the BI Rate positively and significantly affects Indonesian inflation. The variable BI Rate received a probability value of 0.0000, indicating that the BI Rate is less than the significance level ($0.0000 < 0.05$), so H_0 is rejected and H_a is accepted. It is possible to conclude that the BI Rate positively and significantly affects Indonesian inflation. The findings of the study are consistent with previous research, specifically research conducted by (Rocky et al., 2020) analysis of the Monetary Policy Against Inflation in Indonesia for the period 2006/1 – 2019.2, in which the interest rate variable (BI Rate) has a positive and significant influence on inflation statistics directly.

The Influence of the Money Supply on Inflation Rate

According to the findings of statistical tests, the regression coefficient value of the money supply variable (X2) is 0.232693. This demonstrates that the money supply variable positively affects inflation in Indonesia, which means that a 1% increase in the BI Rate raises inflation by 0.232693%. The probability value for the money supply variable is 0.6212. the probability value of the money supply is greater than the significant level ($0.06123 > 0.05$), so H_0 is accepted, and H_a is rejected. This implies that the money supply variable has no significant positive effect on inflation in Indonesia. The finding of this study is consistent with Irving Fisher's quantity theory, which states that inflation occurs when the money supply expands. However, the findings of this study contradict the findings of this study contradict the findings of (Rocky et al., 2020), who found that the money supply variable has a negative and insignificant effect on inflation in Indonesia because the findings of this study show that the money supply variable has a positive and insignificant effect on Indonesia inflation.

The Effectiveness of Monetary Policy on Indonesia's Gross Domestic Product (GDP)

Based on the results of the cusum test squares, it can be seen that there was a response from monetary policy to Gross Domestic Product (GDP) starting in 2006. 2006 was a year of macroeconomic stability that reflected the Indonesian economy's performance despite several significant constraints. As early as 2006, economic circumstances were still highly influenced by the impact of rising gasoline costs (BBM) and high interest rates due to fiscal and monetary policy measures made to address shocks of macroeconomic instability in 2005. Indonesia's economic growth in 2006, as measured by the increase in Gross Domestic Product (GDP), increased by 5.5% compared to 2005. For Bank Indonesia, 2006 was a year full of challenges, especially in regaining and strengthening macroeconomic stability and, simultaneously, finding space for restoring economic activity so that the national economy can return to the direction of high-quality and sustainable economic growth. In line with macroeconomic stability that can be maintained, opportunities for the achievement of the inflation target, and to provide impetus to economic growth, since May 2006, Bank Indonesia has begun to lower the BI Rate carefully and measuredly.

The research results show that the interest rate variable (BI Rate) has a significant negative correlation with Gross Domestic Product (GDP) in Indonesia, and the money supply variable shows a significant positive correlation with Gross Domestic Product (GDP) in Indonesia. Therefore, it is hoped that the Indonesian Monetary Authority, Bank Indonesia, will be able to maintain the stability of interest rates (BI Rate) and increase the amount of money circulating in society to encourage increased economic growth in Indonesia.

The Effectiveness of Monetary Policy on Indonesia's Inflation Rate

The results of the Cusum test squares of monetary policy response to Indonesia's inflation rate began to show a response in 2007. The year 2007 began with the Indonesian economy regaining macroeconomic stability after the oil price shock. This is due to consistent monetary policy alignment towards achieving the inflation target and fiscal policy firmly committed to maintaining fiscal sustainability.

Consistent with the belief in improving macroeconomic stability, achieving the inflation target, and building financial system resilience, Bank Indonesia has, since early 2007, lowered its benchmark interest rate measurably and then maintained it until the end of the year. Domestic economic conditions in 2007 showed improvement, as reflected in inflation, which tended to decline.

The research results show that the interest rate (BI Rate) and money supply have a significant positive effect on the inflation rate, so Bank Indonesia is expected to be able to maintain interest rate stability and control the money supply to help maintain the stability of the inflation rate in Indonesia.

Conclusion

Monetary Policy is effective in increasing Gross Domestic Product (GDP). In Model I (Gross Domestic Product as Dependent), variable BI Rate (X1) has a negative influence significant level on the Gross Domestic Domestic (GDP). The variable amount of money supply (X2) positively influences Gross Domestic Product (GDP). This means that, besides the BI Rate variable, the amount of money supplied has a significant effect. Furthermore, it can be seen from the cusum test squares results that the response of monetary policy to Gross Domestic Product (GDP) was faster in the second quarter of 2006. The time required for a response from interest rates and the money supply was two years, a quarter or six months.

Model II (Inflation as Dependent Variable) can conclude that variable level interest rate (BI Rate) (X1) has a positive relationship. Influence inflation significant variable amount of money supply (X2) has a positive relationship but not significant on the inflation rate. Judging from the result of the cusum test squares, the response of monetary policy to the inflation rate occurred in the first quarter of 2007. The time needed to see a response from changes in interest rates and the money supply to the inflation rate was five quarters or 1 year and 3 months.

Thus, it can be concluded that the two models effectively determine Indonesia's monetary policy instruments with the final target of increasing the Gross Domestic Product and the Inflation Rate of Indonesia. The limitation of this research is the lack of data availability or publication of data in a specific period, which is needed to support the conduct of the research. It is hoped that future research will be able to perfect this research by adding measuring instruments for variables or other factors that can see Indonesia's monetary policy's efficacy. It is hoped that further research can extend the time coverage and broaden the research scope to find further and different results.

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