



Interaction of Money Supply, Unemployment, Economic Growth, Sharia and Conventional Monetary Instruments to Inflation

Indra Mualim Hasibuan^{1*}, Maryam Batubara², Nur Ahmadi Bi Rahmani³

^{1,2,3} Faculty of Islamic Economics and Business State Islamic University of North Sumatra

Article Information

History of article:
Received March 2024
Approved March 2024
Published March 2024

ABSTRACT

Controlling inflation to create economic stability is an absolute must for the government. However, there are challenges to creating stable inflation, including the existence of variables in the money supply, unemployment and economic growth which have an impact on creating inflation. In an effort to overcome these challenges, the government uses sharia and conventional monetary instruments to control inflation. In 2022, the improvement in the Indonesian economy after the Covid 19 pandemic will actually create the highest inflation in recent years. The aim of this research is to determine the interaction of Money Supply, Unemployment, Economic Growth, Government Sharia Securities, Islamic Interbank Money Market, Bank Indonesia Certificate, and Interbank Money Market to Inflation using monthly data from 2015-2022. This research is quantitative research using the VECM method with the help of E-Views software. The research results show that the Money Supply has a negative relationship and has no significant effect on Inflation, Unemployment and Economic Growth has a positive relationship and has no significant effect on Inflation, SBSN has a negative relationship and has no significant effect on inflation, PUAS has a negative relationship and has a significant effect on Inflation, SBI and PUAB have a positive relationship and do not have a significant effect on inflation. The implication of the research is that the monetary authority, in this case Bank Indonesia, as the institution authorized to control inflation, is to prioritize the SBSN and PUAS monetary instruments to control inflation. Research limitations include only using a few monetary instruments, due to limited data available on various government websites for several years.

Keywords: Inflation, Money Supply, Unemployment, Economic Growth, SBSN, PUAS, SBI, PUAB, VECM

JEL Classification Code: E01, E24, E31, E51, E52

© 2024 MediaTrend

Author correspondence:
E-mail: indrahazby@gmail.com

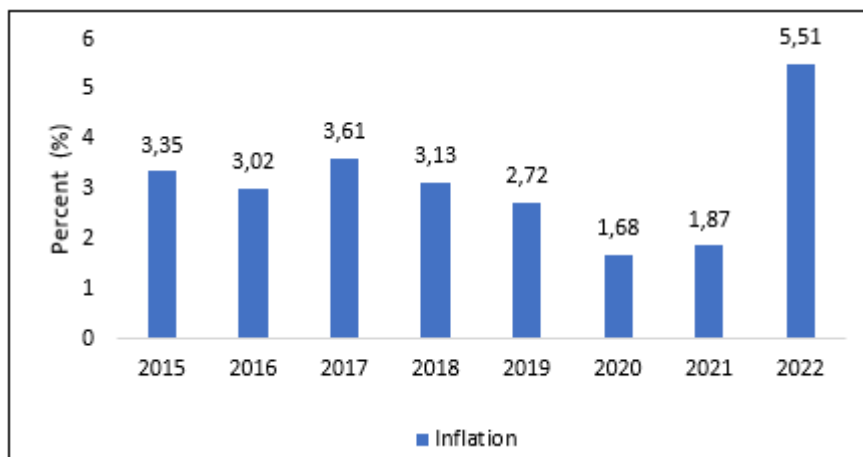
DOI: <http://dx.doi.org/10.21107/mediatrend.v19i1.25304>
2460-7649 © 2024 MediaTrend. All rights reserved.

INTRODUCTION

The existence of money in human civilization is very important, no side of human economic life can be separated from the existence of money. However, if the quantity of money in circulation gets out of control it can have a negative impact on the economy (Solikin, 2016). The bad consequence of lack of control over the money supply will be the inflation rate (Juhro, 2021). The amount of money in circulation and the amount of goods/services must be balanced, if they are not balanced, there will be a general increase in prices/inflation. For example, the money supply increases but is not accompanied by an increase in production of goods/services, resulting in excess demand which triggers inflation (Sudarmanto et al., 2023). The following is inflation data.

Several theories in the economic literature explain the causes of inflation, the quantity theory of money explains that inflation is caused by an increase in the money supply relatively greater than the growth in output of goods/services (Sharaf & Mahmoud, 2023). According to economist Milton Friedman, a large money supply only in the long term results in high inflation, while in the short term it is not correlated. Then McCandless and Weber said that there was a strong correlation between the money supply and inflation, with a correlation coefficient in the range of 0.92-0.96, close to 1 (Madurapperuma, 2023).

Research results of Wasanthi (Madurapperuma, 2023), and (Khieu, 2021) shows that money supply has a positive effect on inflation. Meanwhile, re search



Source : Central Bureau of Statistics

Figure 1.
Inflation in 2015-2022

The lowest inflation figure in the last year occurred in 2020 (1.68%), while the highest inflation was in 2022 (5.51%). If we observe that in 2016 inflation decreased by 0.33%, in 2017 inflation increased by 0.59%, in 2018 inflation decreased by 0.48%, in 2019 inflation increased by 0.71%, in 2020 inflation decreased by 1.04 %, in 2021 inflation will increase by 0.19%, and in 2022 inflation will increase by 3.64%.

by Youssra et al (Ben Romdhane et al., 2024), and Emmanuel et al (Duodu et al., 2022) shows that money supply has a negative effect on inflation. In macroeconomic studies, there are several variables that influence inflation, including unemployment and economic growth. The Phillips curve theory suggests an inverse relationship between inflation and unemployment. According to Phillips, a decrease in unemployment leads to an increase in inflation,

and vice versa. The meaning in the Phillips curve theory is that changes in the labor market, such as employment levels and wage levels, can significantly influence inflation (Ahmed et al., 2023). In the 1960s, the model was tested and it was proven that there was a long-term trade-off between inflation and unemployment. Low unemployment is achieved at the expense of high inflation. However, the increase in oil prices in the 1970s caused the validity of the Phillips curve theory to be questioned, many economists stated that the Phillips curve relationship was only short-term. Friedman said the long-term relationship between unemployment and inflation does not reflect the truth (Bildirici & Sonustun, 2018). The research results of Petrovska and Nikolov (Petrovska & Nikolov, 2018), Hodijah and Leonardo (Hodijah & Simamora, 2021) show that unemployment has a positive effect on inflation. Meanwhile, Dhia and Evi's research (Damayanti & Purwanti, 2021) shows that unemployment has a negative effect on inflation.

Economic growth also has a close relationship with inflation. 1976 Nobel laureate Milton Friedman stated that high and fluctuating inflation hinders economic growth, when high inflation rates companies cannot detect profitable investment opportunities. Apart from that, inflation also makes external funds expensive due to increasing information asymmetry. These two factors force companies to postpone corporate fixed investment projects, which of course will reduce output growth (Zivkova et al., 2020). Inflation variables and economic growth variables are interrelated. When high inflation will have an impact on slowing economic growth (Mansur et al., 2023), conversely relatively low and stable inflation will encourage increased economic growth. Likewise with economic growth, when economic growth is high it can trigger high inflation through an increase in aggregate demand (Sarbaini & Nazaruddin, 2023). The research results

of Ali et al (Anis et al., 2019), and Girma (Emeru, 2020) show Economic growth has a positive effect on inflation. Meanwhile, the results of research by Youssra et al (Ben Romdhane et al., 2024) show that economic growth has a negative effect on inflation.

Controlling inflation is an important goal, various studies focus on macroeconomic studies to control the inflation rate because it is considered a relevant topic to study (Sisay et al., 2022). The central bank is an institution that has the authority to control inflation using monetary policy. Monetary policy is steps designed to regulate the volume, value and cost of money in an economy, in accordance with the expected level of economic activity (Modugu & Dempere, 2022), namely to achieve economic growth, availability of jobs and price stability (Ezako, 2023).

Monetary policy is closely related to banks and money supply. There are two variations of monetary policy, namely expansionary and contractionary. Expansionary monetary policy aims to increase the money supply when the economy is in a recession (decrease in economic activity). Meanwhile, contractionary monetary policy aims to reduce the money supply when the economy is in an inflationary condition. Both types of policies essentially aim to control money in circulation (Sadat, 2022). In the Indonesian banking system itself, there are two banking systems (dual banking system), namely sharia banks and conventional banks (Jahroni et al., 2023). The implication is that there are two variations of Bank Indonesia's monetary policy tools, namely, sharia monetary instruments and conventional monetary instruments. State Sharia Securities (SBSN) are also called state sukuk (Hartono, 2022). SBSN is a price channel monetary policy instrument that influences the movement of asset prices, including financial asset prices such as shares, bonds and sukuk. If there are changes in interest rates, exchange rates

or investment amounts in the money market, this can affect the volume and price of bonds, shares or sukuk. Then asset prices for consumption and investment will influence aggregate demand, thereby determining the level of real output and inflation in the economy (Dwihapsari et al., 2021).

Empirical literature related to the influence of SBSN on inflation has been studied, but the results are inconsistent. The research results of Hasna et al. (Hasna et al., 2019), and Rindani et al. (Dwihapsari et al., 2021) show that SBSN has a positive effect on inflation. Meanwhile, the research results of Dedi (Nuruliya, 2020) and Zainal et al (Siregar et al., 2023) that SBSN has a negative effect on inflation.

The next sharia monetary instrument is PUAS, the philosophy of the interbank money market based on sharia principles is that a bank can experience a lack of liquidity, as well as sharia banks due to differences in the time period between receiving and investing funds or conditions of excess liquidity due to funds originating from the public not yet being distributed to the party in need. To increase the efficiency of fund management, banks based on sharia principles require an interbank money market (Sup, 2022). Technically, financing through PUAS will increase deposits (d) and banking financing, so that investment (i) and aggregate output (y) increase. When PUAS increases, the level of production will also increase so that the supply of goods will also increase, and ultimately this will reduce the inflation rate. In conclusion, PUAS has a negative effect on inflation.

Empirical literature related to the influence of PUAS on inflation has been studied, but the results are inconsistent. The research results of Fitri (Zaelina, 2018), and Dedi (Nuruliya, 2020) show that PUAS has a negative effect on inflation. Meanwhile, the results of research by Anton et al (Bawono et al., 2021), and Ishak et al (Ishak et al., 2022), and Ariani et al

(Aqidah et al., 2022) show that PUAS has a positive effect on inflation.

The conventional monetary instrument Bank Indonesia Certificate are securities issued by Bank Indonesia in rupiah as an acknowledgment of debt to the public who place their funds in banks, SBI instruments use an interest system (Yulistiyono et al., 2021). When there is too much money supply in society or consumer demand cannot be balanced by producer supply, this condition will cause an increase in prices. In these conditions the central bank has the option to issue/sell valuable certificate or increase interest rates. The sale of SBI monetary instruments by the central bank will cause money supply in society to decrease, because people tend to save their money in banks (by buying SBI) in the hope that prices will decrease (Alamsyahbana, 2022).

SBI is an open market operation tool in the Bank Indonesia money market, which aims to absorb excess money circulating in society (Darmawan, 2022). When money circulation is successfully controlled, the inflation rate will be more stable and the rupiah exchange rate will appreciate (Hasan et al., 2022). Empirical literature related to the influence of SBI on inflation has been studied, but the results are inconsistent. Research results of Ariani et al (Aqidah et al., 2022), and Yana et al (Rohmana & Utami, 2023) show that SBI has a negative effect on inflation. Meanwhile, research results from Ripdian et al (Nisa et al., 2018), Raditya and Achmad (Sukmana & Wicaksana, 2019), and (Nuruliya, 2020) show that SBI has a positive effect on inflation.

The next conventional monetary instrument is the Interbank Money Market (PUAB) or interbank call money, PUAB is an activity of lending and borrowing funds between one bank and another bank for a short period of time (daily) which is generally used to prevent banks from "losing clearing" status (Serfiyani et al., 2021). Ac-

tivities at PUAB are carried out using an over the counter mechanism, namely an agreement between the borrower and the owner of the funds, which is not carried out through the stock exchange floor. PUAB transactions can have maturities from one working day (overnight) to one year, but in practice the majority of PUAB transactions have maturities of less than 3 months (Ika & Kemu, 2016).

Empirical literature related to the influence of PUAB on inflation has been studied, but the results are inconsistent. The research results of Rahmad and Ima (Gani & Amaliah, 2021), and Ariani et al (Aqidah et al., 2022) show that PUAB has a positive effect on inflation. Meanwhile, the research results of Dedi (Nuruliya, 2020) and Yana et al (Rohmana & Utami, 2023) show that PUAB has a negative effect on inflation.

Based on the background study there is still an empirical gap (difference in the results of previous research) related to inflation. relationship of variables used in research. This makes researchers want to carry out a review by raising the title "Interaction of Money Supply, Unemployment, Economic Growth, Sharia and Conventional Monetary Instruments to Inflation". The research objectives include: to determine the interaction and contribution of money supply, unemployment, economic growth, islamic interbank money market, state sharia securities, Indonesian bank certificate, interbank money market on inflation. The uses of research include: it can be used as material for evaluation and consideration when implementing monetary policy, which type of monetary instrument will be prioritized, whether sharia monetary policy or conventional monetary policy in order to achieve monetary policy objectives, namely price stability and economic growth.

It is hoped that the contribution of this research can be a consideration for the Central Bank as the institution that has

the authority to control inflation. With the results of this research, the Central Bank can consider the types of monetary instruments that will be prioritized to control the rate of inflation. It is also hoped that this research can become reference material for future research.

METHODOLOGY

This type of research is quantitative research, quantitative research according to Sugiyono is a research method based on positivistics (concrete data) which will be measured using statistical tools to obtain conclusions (Muslimin et al., 2023). This research uses Indonesia as the research location, the research period starts in December 2023. The research data is secondary data which is accessed via the Bank Indonesia website www.bi.go.id the Central Statistics Agency www.bps.go.id and the Services Authority Finance www.ojk.go.id The research method uses the Vector Error Correction Model (VECM).

The research method uses the Vector Error Correction Model (VECM). Data analysis stages are as follows:

1. The Stationarity Test is the first stage to test whether the data is stationary or not, using the Augmented Dickey Fuller Test (ADF). The condition is that if the Prob value is $< 0.05\%$ then the data is declared stationary, whereas if the Prob value is $> 0.05\%$ then the data is declared non-stationary. If in the first test (Level 1) the data is not stationary, then a second test (first difference) is carried out.
2. The Optimum Lag Test aims to determine the optimum lag length which will be used for further analysis. The conditions for this test are to look at the lag at what value is the smallest Akaike Information Criteria (AIC).
3. Stability Test aims to test whether the data is stable or not, the results of this test determine the validity of the next test (IRF and FEVD tests). The condition is that if the distribution of points (inverse roots) is

in a circle, the data is declared stable.

4. The Granger Causality Test aims to find out whether there is a causal relationship (cause and effect) between two variables, in other terms whether there is a two-way or one-way relationship between two variables.

5. The Cointegration Test aims to determine whether or not there is a long-term relationship between research data. This test will determine whether the test used is VAR or VECM. If there is a long-term relationship, then the VECM method will be used, otherwise if there is no long-term relationship, the VAR in Difference method will be used. The condition is that if the trace statistic value is $>$ critical value, then the data has a long-term relationship or the data is cointegrated. Meanwhile, if the trace statistic value is $<$ critical value, then the data does not have a long-term relationship or the data is not cointegrated.

6. The VECM test is a stage to find out the long-term and short-term influences between variables. The condition is that if the t-statistic value $>$ t-table then there is a significant influence of one variable on other variables. Meanwhile, if the t-statistic value $<$ t-table, then there is no significant influence of one variable on other variables.

7. The Impulse Response Function test aims to find out how a shock affects other variables, so that with the IRF test it can be known how long the impact of a shock in one variable will have on other variables.

8. The Forecast Error Variance Decomposition test aims to determine the percentage contribution of each variable due to changes in certain variables in the model.

RESULTS AND DISCUSSION

Stationarity Test

This test aims to produce final information that is statistically valid.

The results of the Stationarity test at level 1 show that there are still variables whose probability value is $>$ 0.05%, namely Inflation, Money Supply, Unemployment, Economic Growth, SBSN, SBI, and PUAB. Only the PUAS variable passes the stationarity test at level 1. Therefore, it is necessary to carry out a stationarity test at the first difference level. The results of the first difference stationarity test are that all variable probability values are $<$ 0.05%, which means that all variables are declared to have passed the stationarity test at the first difference level. The implication is that the method that will be used is the Vector Error Correction Model method.

Optimum Lag Test

The results of the optimum lag test for the variables Inflation, money supply, Unemployment, Economic Growth, SBSN, PUAS, SBI, and PUAB obtained the optimum lag length at lag 1 with an Akaike Information Criterion (AIC) value of -7.812079.

Table 1.
Stationarity Test

Var	Level		First Difference	
	Dickey Fuller Test	Prob	Dickey Fuller Test	Prob
Inf	-1.960.657	0.3037	-7.973.837	0.0000
JUB	0.872684	0.9948	-1.418.666	0.0001
Unem	-1.735.851	0.4100	-4.209.753	0.0011
GDP	-1.969.877	0.2996	-6.882.138	0.0000
SBSN	-1.674.615	0.4408	-1.049.224	0.0000
PUAS	-6.646.589	0.0000	-1.181.582	0.0001
SBI	-0.032879	0.9525	-7.652.166	0.0000
PUAB	-3.705.065	0.0055	-1.389.272	0.0001

Source : Analysis Results Of Eviews

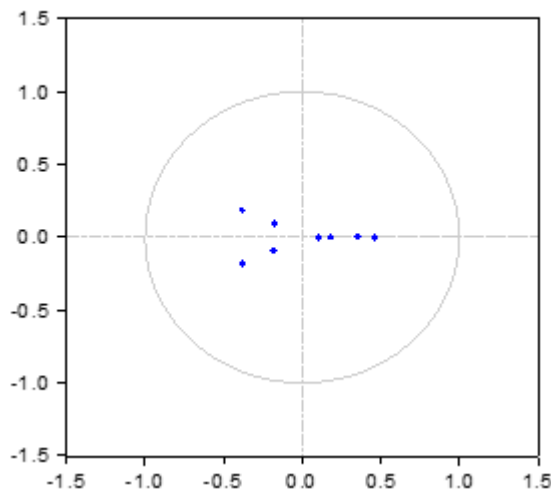
Table 2.
Optimum Lag Test

Lag	LogL	LR	FPE	AIC	SC	HQ
0	350.4939	NA	5.75e-14	-7.783953	-7.558741*	-7.693221*
1	415.7315	117.1310	5.62e-14*	-7.812079*	-5.785167	-6.995487
2	468.6332	85.36422*	7.48e-14	-7.559846	-3.731235	-6.017395
3	518.4008	71.25811	1.13e-13	-7.236382	-1.606071	-4.968071
4	566.8053	60.50566	1.93e-13	-6.881939	0.550071	-3.887769
5	616.9730	53.58818	3.62e-13	-6.567568	2.666142	-2.847538
6	686.3850	61.52430	5.38e-13	-6.690569	4.344841	-2.244679
7	785.6940	69.96771	5.56e-13	-7.493046	5.344063	-2.321297

Source : Analysis Results Of Eviews

Table 3.
Stability Test

Inverse Roots of AR Characteristic Polynomial



Source : Analysis Results Of Eviews

Stability Test

Based on the results of the stability test, the distribution of points is in a circle, meaning that the stability test was declared passed.

Granger Causality Test

The causality test aims to determine the causal relationship, whether there is a one-way or two-way relationship between variables. The terms of the Granger causality test are seen from the probability value. If the probability value is < 0.05% then there is a causal relationship (two-way) between the variables, meaning that the variable relationship is a two-way (reciprocal) relationship.

The probability value of the PUAS variable for the Inflation variable is 0.0393% < 0.05%. Meanwhile, the probability value of inflation on PUAS is 0.0745% > 0.05%. It can be concluded that the PUAS variable and the Inflation variable have a unidirectional causal relationship, that is, there is a causal relationship from the PUAS variable to the Inflation variable. From these results it can be seen that the PUAS variable statistically significantly influences the Inflation variable. On the other hand, the Inflation variable does not significantly influence the PUAS variable. Therefore, it is concluded that there is a one-way causal relationship.

Table 4.
Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
1. LN_PUAS does not Granger Cause INF	95	4.37265	0.0393
2. PE does not Granger Cause INF	95	4.63313	0.0340
3. LN_JUB does not Granger Cause LN_PUAS		5.05642	0.0269
4. LN_JUB does not Granger Cause LN_SBSN		10.8648	0.0014
5. PE does not Granger Cause LN_PUAB	95	6.13292	0.0151
6. PENG does not Granger Cause LN_PUAB	95	14.5783	0.0002
7. LN_SBSN does not Granger Cause LN_PUAS	95	4.49151	0.0368
8. LN_SBI does not Granger Cause LN_SBSN		6.79833	0.0106
9. LN_SBI does not Granger Cause PENG		3.97791	0.0491
10. PENG does not Granger Cause LN_SBSN	95	4.39857	0.0387
11. PENG does not Granger Cause PE	95	7.31401	0.0082
12. PE does not Granger Cause PENG		16.1348	0.0001

Source : Analysis Results Of Eviews

The probability value of the Economic Growth variable for the Inflation variable is $0.0340\% < 0.05\%$. Meanwhile, the probability value of the Inflation variable for the Economic Growth variable is $0.3694\% > 0.05\%$. It can be concluded that the Economic Growth variable and the Inflation variable have a unidirectional causal relationship, that is, there is a causal relationship from the Economic Growth variable to the Inflation variable. From these results it can be seen that the Economic Growth variable statistically significantly influences the Inflation variable. On the other hand, the inflation variable does not significantly influence economic growth. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the Money Supply variable for the PUAS variable is $0.0269\% < 0.05\%$. Meanwhile, the probability value of the PUAS variable for the Money Supply variable is $0.6880\% > 0.05\%$. So it can be concluded that the Money Supply variable and the PUAS variable have a unidirectional causal relationship, that is, there is a causal relationship from the Money Supply variable to the PUAS variable. From these results it can be seen that the Money Supply variable

statistically significantly influences the PUAS variable. On the other hand, the PUAS variable does not significantly influence the Money Supply variable. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the Money Supply variable for the SBSN variable is $0.0014\% < 0.05\%$. Meanwhile, the probability value of the SBSN variable for the Money Supply variable is $0.1550\% > 0.05\%$. It can be concluded that the Money Supply variable and the SBSN variable have a unidirectional causal relationship, that is, there is a causal relationship from the Money Supply variable to the SBSN variable. From these results it can be seen that the Money Supply variable statistically significantly influences the SBSN variable. On the other hand, the SBSN variable does not significantly influence the Money Supply variable. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the Economic Growth variable for the PUAB variable is $0.0151\% < 0.05\%$. Meanwhile, the probability value of the PUAB variable for the Economic Growth variable is $0.2062\% > 0.05\%$. It can be concluded that the Economic Growth variable to the PUAB vari-

able has a unidirectional causal relationship, that is, there is a causal relationship from the Economic Growth variable to the PUAB variable. From these results it can be seen that the Economic Growth variable statistically significantly influences the PUAB variable. On the other hand, the PUAB variable does not significantly influence the Economic Growth variable. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the Unemployment variable for the PUAB variable is $0.0002\% < 0.05\%$. Meanwhile, the probability value of the PUAB variable for the Unemployment variable is $0.0955\% > 0.05\%$. It can be concluded that the Unemployment variable to the PUAB variable has a unidirectional causal relationship, that is, there is a causal relationship from the Unemployment variable to the PUAB variable. From these results it can be seen that the Unemployment variable statistically significantly influences the PUAB variable. On the other hand, the PUAB variable does not significantly influence the Unemployment variable. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the SBSN variable for the PUAS variable is $0.0368\% < 0.05\%$. Meanwhile, the probability value of the PUAS variable for the SBSN variable is $0.2328\% > 0.05\%$. It can be concluded that the SBSN variable and the PUAS variable have a unidirectional causal relationship, that is, there is a causal relationship from the SBSN variable to the PUAS variable. From these results it can be seen that the SBSN variable statistically significantly influences the PUAS variable. On the other hand, the PUAS variable does not significantly influence the SBSN variable. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the SBI variable for the SBSN variable is $0.0106\% < 0.05\%$. Meanwhile, the probability value

of the SBSN variable on SBI is $0.3111\% > 0.05\%$. So it can be concluded that the SBI variable and the SBSN variable have a unidirectional causal relationship, that is, there is a causal relationship from the SBI variable to the SBSN variable. From these results it can be seen that the SBI variable statistically significantly influences the SBSN variable. On the other hand, the SBSN variable does not significantly influence SBI. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the SBI variable for the Unemployment variable is $0.0491\% < 0.05\%$. Meanwhile, the probability value of the Unemployment variable for the SBI variable is $0.1174\% > 0.05\%$. So it can be concluded that the SBI variable and the Unemployment variable have a unidirectional causal relationship, that is, there is a causal relationship from the SBI variable to the Unemployment variable. From these results it can be seen that the SBI variable statistically significantly influences the Unemployment variable. On the other hand, Unemployment does not significantly affect SBI. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the Unemployment variable for the SBSN variable is $0.0387\% < 0.05\%$. Meanwhile, the probability value of the SBSN variable for the Unemployment variable is $0.7998\% > 0.05\%$. So it can be concluded that the Unemployment variable to the SBSN variable has a unidirectional causal relationship, that is, there is a causal relationship from the Unemployment variable to the SBSN variable. From these results it can be seen that the Unemployment variable statistically significantly influences the SBSN variable. On the other hand, the SBSN variable does not significantly influence the Unemployment variable. Therefore, it is concluded that there is a one-way causal relationship.

The probability value of the Unemployment variable for the Economic Growth

variable is $0.0082\% < 0.05\%$. Meanwhile, the probability value of the Economic Growth variable for the Unemployment variable is $0.0001\% < 0.05\%$. So it can be concluded that the Unemployment variable to the Economic Growth variable has a two-way causal relationship, namely there is a causal relationship from the Unemployment variable to the Economic Growth variable, and there is a causal relationship from the Economic Growth variable to the Unemployment variable. From these results it can be seen that the Unemployment variable statistically significantly influences the Economic Growth variable, and the Economic Growth variable statistically significantly influences the Unemployment variable. Therefore, it is concluded that there is a two-way causal relationship.

Cointegration Test

Based on Table 5 the results of the cointegration test above, there is a long-

term relationship between variables. This can be seen from the Trace Statistics value $>$ from the Critical Value value. This means that the test that will be used next is the VECM test.

VECM Test

The VECM test aims to determine the long-term influence and short-term influence between variables. The VECM model uses a significance level of 5% with a t table value of 1.98. The condition is that if the t statistic value $>$ t table then there is a significant influence on the variable. Meanwhile, if t statistic $<$ t-table, then the variable has no significant effect.

Based on the equation above, it can be concluded that the Money Supply variable has a negative relationship and does not have a significant effect on Inflation, meaning that in the long term a change of 1 billion in the Money Supply will reduce Inflation by 19.1%. The Unemployment

Table 5.
Cointegration Test

Hypothesized No. Of CE (s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob **
None *	0.640030	358.7537	159.5297	0.0000
At most 1 *	0.602150	263.7325	125.6154	0.0000
At most 2 *	0.454895	178.0163	95.75366	0.0000
At most 3 *	0.362456	121.5861	69.81889	0.0000
At most 4 *	0.287565	79.72377	47.85613	0.0000
At most 5 *	0.226481	48.19062	29.79707	0.0002
At most 6 *	0.157667	24.30770	15.49471	0.0018
At most 7 *	0.085880	8.350743	3.841466	0.0039

Source : Analysis Results Of Eviews

Table 6.
Long Term Inflation VECM Test

Endogenous Variables	Variable Exogenous	Coefficient	Standar Error	t-statistic
INF	C	0.345075		
	JUB	-19.11251	56.2413	-0.33983
	Unem	4.609672	9.01088	0.51157
	GDP	0.993823	1.86986	0.53150
	SBSN	-4.687.583	10.4897	-0.44687
	PUAS	-8.386.431	0.75741	-11.0724
	SBI	1.014517	2.30431	0.44027
	PUAB	6.043867	5.88784	1.02650

Source : Analysis Results Of Eviews

variable has a positive relationship and does not have a significant effect on Inflation, meaning that in the long term a 1% change in Unemployment will increase Inflation by 4.60%. The Economic Growth variable has a positive relationship and does not have a significant effect on Inflation, meaning that in the long term a 1% change in Economic Growth will increase Inflation by 0.99%. The SBSN variable has a negative relationship and does not have a significant effect on inflation, meaning that in the long term a change of 1 billion SBSN will reduce inflation by -4.68%. The PUAS variable has a negative relationship and has a significant effect on inflation, meaning that in the long term a change of 1 billion PUAS will reduce inflation by -8.38%. The SBI variable has a positive relationship and does not have a significant effect on inflation, meaning that in the long term a change of 1 billion SBI will increase inflation by 1.01%. The PUAB variable has a positive relationship and does not have a significant effect on inflation, meaning that in the long term a change of 1 billion PUAB will increase inflation by 6.04%.

Short Term VECM Test

The results of the VECM estimation above, in the short term, only the Inflation and PUAB variables have a significant ef-

fect on the Inflation variable, this can be seen from the t statistic value of Inflation (3.13%) and PUAB (2.18%) > 1, 98%.

Impulse Response Function Test

Based on the R-Square results, it can be seen that the ability of exogenous variables to explain the D(PUAB) variable is 43.8%, while the remaining 56.2% is explained by other variables outside this research.

Based on the table above, it can be interpreted that the inflation variable responds positively to the shock given by the inflation variable itself in a fluctuating manner. The inflation variable responded positively to shocks to the money supply variable in the second period and in the third period the inflation variable responded negatively to shocks to the money supply variable, and in periods 4 to 10 the inflation variable again responded positively to shocks to the money supply variable in a fluctuating manner. The inflation variable responds positively to shocks in the PUAB variable in periods 2 to 10 in a fluctuating manner. The inflation variable responded positively to shocks to the PUAS variable in periods 2 to 3, and in the 4th period the inflation variable responded negatively to shocks to the PUAS variable, then in periods 5 to 10 the inflation variable again

Table 7.
Short Term Inflation VECM Test

Variables	Coefficient	Standar Error	t-Statistic
D(INF(-1),2)	-0,304987	0,09743	-3,13035
D(LN_JUB(-1),2)	2.974120	2,53195	1,17464
D(LN_PUAB(-1),2)	0.561512	0,25753	2,18036
D(LN_PUAS(-1),2)	-0,053153	0,05044	-1,05377
D(LN_SBI(-1),2)	0.304765	0,1896	1,60739
D(LN_SBSN(-1),2)	0.696636	0,60614	1,1493
D(PE(-1),2)	0.192433	0,1932	0,99604
D(PENG(-1),2)	1.420067	0,97057	1,46312
R-squared	0.251299		
t Table	1,98729		

Source : Analysis Results Of Eviews

responded positively to shocks to the PUAS variable in a fluctuating manner. The inflation variable responds positively to shocks in the SBI variable in periods 2 to 10 in a fluctuating manner. The inflation variable responds positively to shocks in the SBSN variable in periods 2 to 10 in a fluctuating manner. The inflation variable responds negatively to shocks in the economic growth variable in periods 2 to 10 in a fluctuating manner. The inflation variable responds positively to shocks in the unemployment variable in periods 2 to 10 in a fluctuating manner.

FEVD Test

Forecast Error Variance Decomposition (FEVD) analysis in the Inflation model shows that the percentage contribution of the largest variable influencing changes in

inflation is inflation itself at 100% in period 1. Then in the second period the contribution of inflation decreases to 93% and then from period 3 to period 10 the contribution of inflation against inflation is consistent at 94%. The contribution of the PUAB variable in the 2nd period was 2.38% and in the 10th period it fell to 1.79%. The contribution of the SBI variable in the 2nd period was 1.13% and in the 10th period it fell to 0.97%. The contribution of the SBSN variable in the 2nd period was 1.16% and in the 10th period it decreased to 0.76%. The contribution of the Unemployment variable in the 2nd period was 0.99% and in the 10th period it fell to 0.68%. The contribution of the Economic Growth variable in the 2nd period was 0.50% and in the 10th period it decreased to 0.48%. Then the contribution of the money supply variable tends to

Table 8.
IRF Test Inflation

Period	D(INF)	D(LN_ JUB)	D(LN_ PUAB)	D(LN_ PUAS)	D(LN_ SBI)	D(LN_ SBSN)	D (PE)	D(PENG)
1	0.456223	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.299739	0.032364	0.087236	0.019301	0.060223	0.061005	-0.040173	0.056215
3	0.323491	-0.003212	0.016589	0.032051	0.024785	0.002527	-0.015764	0.009591
4	0.331332	0.016326	0.056223	-0.006622	0.031069	0.038905	-0.029783	0.030990
5	0.329571	0.010073	0.035949	0.027076	0.036902	0.020829	-0.015340	0.028096
6	0.324206	0.012367	0.047726	0.013377	0.030468	0.030295	-0.030353	0.023404
7	0.329048	0.009542	0.039826	0.012955	0.034832	0.023272	-0.019161	0.028928
8	0.327798	0.012321	0.044959	0.016068	0.031574	0.029397	-0.024794	0.024568
9	0.327025	0.011064	0.042067	0.015840	0.034418	0.024599	-0.023028	0.027976
10	0.327668	0.010736	0.043526	0.013855	0.032172	0.027825	-0.023374	0.025134

Source : Analysis Results Of Eviews

Table 9.
Table FEVD Inflation

Period	D(INF)	D(LN_ JUB)	D(LN_ PUAB)	D(LN_ PUAS)	D(LN_ SBI)	D(LN_ SBSN)	D (PE)	D (PENG)
1	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	93.37196	0.328200	2.384585	0.116736	1.136438	1.166153	0.505711	0.990211
3	94.50157	0.248259	1.850751	0.328558	0.995429	0.875000	0.437131	0.763304
4	94.25642	0.243595	2.031918	0.265563	0.957698	0.964180	0.505758	0.774870
5	94.49614	0.216942	1.877448	0.331222	0.999418	0.863582	0.454170	0.761081
6	94.52040	0.205495	1.902592	0.306643	0.975805	0.858233	0.508456	0.722378
7	94.67839	0.189461	1.838454	0.286342	0.988268	0.809568	0.484875	0.724645
8	94.72874	0.183205	1.832877	0.279775	0.976257	0.804505	0.491616	0.703021
9	94.78915	0.175691	1.806964	0.274082	0.984327	0.777621	0.489696	0.702472
10	94.84460	0.168924	1.795538	0.264522	0.978348	0.769332	0.489299	0.689433

Source : Analysis Results Of Eviews

decrease from the 3rd period (0.24%) to the 10th period (0.16%). The biggest contribution that influences changes in inflation apart from inflation itself is PUAB, while other variables only influence 0-1%.

Discussion

The results of the research in the long term is that the Money Supply variable has a negative effect on inflation, meaning that in the long term the Money Supply variable is able to reduce the inflation rate. The results of this research contradict several leading theories in macroeconomic studies regarding the relationship between the money supply and the inflation rate, including the quantity theory of money which explains that inflation is caused by a relatively greater increase in the money supply, Milton Friedman's opinion which says that in the long term the number of money supply results in high inflation, while the short term is not correlated. McCandless and Weber's theory states that there is a strong correlation between the money supply and inflation, with a correlation coefficient in the range of 0.92-0.96, close to 1. The negative impact of the money supply on inflation describes that inflation in the context of Indonesia is not caused by variable amounts. money circulation but can be caused by other factors, which are explained by Keynesian theory and Structuralist theory.

The results of this research in the context of Indonesia can be caused by the policies and strategies implemented by the government which are still effective in suppressing inflation which has an impact on the stability of the Indonesian economy. The results of this research are in line with research by Emmanuel et al, where the research findings show that the Money Supply variable has a negative effect on inflation (Duodu et al., 2022). However, the results of this research contradict Saiful's research (Islam, 2022) where in this research the amount of money in cir-

ulation has a positive effect on inflation. Likewise with Wasanthi's research (Madurapperuma, 2023), Hoang's research (Khieu, 2021), and Monorith et al.'s research (Sean et al., 2019).

However, in the short term the Money Supply variable has a positive effect on inflation with a coefficient value of 2.97%. This means that in the short term inflation can increase inflation by 2.97%. Then, if we compare the influence of the Money Supply variable on Inflation in both the short and long term, it can be concluded that the negative influence of the Money Supply on Inflation in the long term is greater than the positive influence of the Money Supply on Inflation in the short term. Further analysis shows that when the expansion of the money supply is anticipated (over a long period of time) it is not the cause of inflation, it can actually reduce the inflation rate and stabilize the economy.

This analysis is strengthened by the results of the Impulse Response Function Inflation Test, where from period 1 to period 10 the Inflation variable responds to shock from the presence of the Inflation variable in the range of 0.01%. Likewise with the results of the FEVD Inflation Test, where from period 1 to period 10 the percentage contribution of the Money Supply to Inflation is only in the range of 0.2% - 0.3%. The same thing is also supported by the results of the Granger Causality Test where the probability value of the Money Supply variable (0.0653) to Inflation is $> 0.05\%$ and the probability value of Inflation to the Money Supply (0.5978) is $> 0.05\%$, which means There is no causal relationship between the Money Supply Variable and Inflation, even though it is only a unidirectional relationship.

In the long term, the Unemployment variable has a positive effect on Inflation, with a coefficient value of 4.60%. This means that in the long term the Unemployment variable will increase the inflation rate by 4.60%. Likewise, in the short term,

the unemployment variable also shows a positive influence on inflation with a coefficient value of 1.42%, which means that in the short term the unemployment variable will increase the inflation rate by 1.42%. The results of this research support the research results of Magdalena and Misho (Petrovska & Nikolov, 2018). This research was conducted in Macedonia and the results were that the unemployment variable had a positive effect on inflation. And this is in contrast to the results of research by Dhia and Evi (Damayanti & Purwanti, 2021) which was conducted in Indonesia, where the results of their research showed that the unemployment variable had a negative effect on inflation. Then, if we analyze further the influence of Unemployment on Inflation, it can be explained by referring to the results of the IRF Inflation test, where from period 2 to 10 the Inflation variable responds positively to the shock of the presence of the Unemployment variable at 0.01% - 0.05%. Then the results of the FEVD Inflation test from the 3rd to the 10th period, the percentage contribution of Unemployment to Inflation decreased from 0.99% in the 2nd period to 0.68% in the 10th period. The results of several tests of the relationship between Unemployment and Inflation raise a question, whether the theory is valid The Phillips curve in the context of Indonesia is still proven or not.

In the long term, the Economic Growth variable has a positive effect on Inflation with a coefficient of 0.99%. This means that in the long term the Economic Growth variable will increase the Inflation variable by 0.99%. Then in the short term Economic Growth also has a positive effect with a coefficient of 0.19%, meaning that in the short term the Economic Growth variable increases inflation by 0.19%. The results of this research are in line with research by Esat et al which was conducted in the Western Balkan countries using the VECM method and the results were that Economic Growth had a positive effect on

Inflation (Durguti et al., 2021). However, the results of this research contradict research by Ben et al (Ben Romdhane et al., 2024) which was conducted in Asian countries, the results of which were that economic growth had a negative effect on inflation.

The results of the IRF Inflation Test can be interpreted that starting from the 2nd period to the 10th period, the Inflation variable responds negatively to the shock of the presence of the Economic Growth variable in the range of 0.01% - 0.04%. FEVD Inflation test results, from period 2 to period 10, the percentage contribution of Economic Growth to Inflation is in the range of 0.4% - 0.5%. In the results of the Granger Causality Test, the probability value of Economic Growth (0.0340%) on Inflation is < 0.05%, then the probability value of Inflation (0.3694%) is > 0.05%, meaning that there is one-way causality between the variables Inflation and Economic Growth, namely the one-way relationship between Economic Growth and Inflation.

In the short term, the SBSN variable has a positive effect on inflation with a coefficient value of 0.69%. In the long term, the SBSN variable has a negative effect on inflation with a coefficient of -4.68%. This means that in the long term the SBSN variable can reduce the inflation rate by -4.68%. The results of this research support the research of Zainal et al (Siregar et al., 2023) which was conducted in Indonesia using the VECM method. The results of this research show that the SBSN variable has a negative effect on inflation. However, the results of this study contradict the research of Rindani et al which showed that the SBSN variable had a positive effect on inflation (Dwihapsari et al., 2021). The results of the IRF Inflation Test can be interpreted that starting from the 2nd period to the 10th period, the Inflation variable responds positively to the shock of the existence of the SBSN variable. FEVD Inflation Test Results, starting from the 2nd

period to the 10th period, the percentage contribution of the SBSN variable to inflation is in the range of 0.01% - 0.11%. In the Granger Causality Test Results, the SBSN probability value (0.0853%) on the Inflation variable is > 0.05 , then the Inflation probability value (0.7237%) on SBSN is $> 0.05\%$, meaning there is no causal relationship between SBSN and Inflation, even if only in one direction.

In the long term, the PUAS variable has a negative and significant effect on inflation with a coefficient value of -8.38%, meaning that in the long term the PUAS variable can reduce the inflation rate by -8.38%. The results of this research support Fitri's research (Zaelina, 2018) and Heri's (Sudarsono, 2017) research conducted in Indonesia showing that the SBSN variable has a negative effect on inflation. However, the results of this study contradict the research of Anton et al (Bawono et al., 2021), the research of Yana et al (Rohmana & Utami, 2023). In the short term, the PUAS variable has a negative effect on inflation with a coefficient value of -0.05%, meaning that in the short term the PUAS variable can reduce inflation by -0.05%. The results of the IRF Inflation Test can be interpreted that from period 2 to period 10 the Inflation variable responds positively to the shock of the presence of the PUAS variable with a value in the range of 0.01% - 0.03%. FEVD Inflation Test Results, from period 2 to period 10, the percentage contribution of the PUAS variable to inflation is in the range of 0.11% - 0.33%. The Granger Causality Test results show the probability value of PUAS (0.0393%) for Inflation $< 0.05\%$, then the probability value of the Inflation variable (0.4071%) for PUAS $> 0.05\%$. This means that there is a one-way causal relationship between the PUAS variable and inflation, namely a one-way causal relationship between the PUAS variable and inflation.

In the long term the SBI variable has a positive effect on inflation with a coefficient value of 1.01%, meaning that

in the long term the SBI variable can increase the inflation rate by 1.01%. In the short term the SBI variable has a positive effect on inflation with a coefficient value of 0.30%, meaning that in the short term the SBI variable can increase the inflation rate by 0.30%. The results of the IRF Inflation Test can be interpreted that starting from the 2nd period to the 10th period, the Inflation variable responds positively to the shock of the presence of the SBI variable with a value in the range of 0.01% - 0.03%. FEVD Inflation Test Results, from period 1 to period 10, the percentage contribution of the SBI variable to inflation is in the range of 0.95% - 1.13%. The Granger Causality Test results show the probability value of the SBI variable (0.0969%) for the Inflation variable $> 0.05\%$, then the Inflation probability value (0.9639%) for the SBI variable $> 0.05\%$. This means that there is no causal relationship between the SBI variables and inflation even though the causal relationship is one way.

In the long term, the PUAB variable has a positive effect on inflation with a coefficient value of 6.04%, meaning that in the long term the PUAB variable will increase the inflation rate by 6.04%. In the short term, the PUAB variable has a positive effect on inflation with a coefficient value of 0.56%, meaning that in the short term the PUAB variable can increase the inflation rate by 0.56%. The results of the IRF Inflation Test can be interpreted that starting from the 2nd period to the 10th period, the Inflation variable responds positively to the shock of the presence of the PUAB variable in the range of 0.01% - 0.08%. FEVD Inflation Test Results, from the 2nd period to the 10th period, the percentage contribution of the PUAB variable to the Inflation variable is in the range of 1.7% - 2.3%. The results of the Granger Causality Test result in the PUAB probability value (0.5610%) for the Inflation variable $> 0.05\%$, then the probability value for the Inflation variable (0.6527%) for the PUAB variable $> 0.05\%$.

This means that there is no causal relationship between the PUAB variable and the inflation variable, even though it is one way.

CONCLUSIONS

In conclusion, this research examines the interaction of Money Supply, Unemployment, Economic Growth, SBSN, PUAS, SBI, and PUAB to Inflation, using the VECM method, the research results explain that in the long term the Money Supply variable has a negative effect on the Inflation variable, while in the short term the Money Supply variable has a positive effect on inflation. In the long term and in the short term the Unemployment variable has a positive effect on the Inflation variable. In the long term and in the short term the Economic Growth variable has a positive effect on the Inflation variable. In the long term the SBSN and PUAS variables have a positive effect on the Inflation variable, while in the short term the SBSN variable has a positive effect on Inflation, while the PUAS variable has a negative effect on the Inflation variable. In the long term, the SBI and PUAB variables have a negative effect on the inflation variable, and in the short term the SBI and PUAB variables also have a positive effect on inflation.

REFERENCE

- Ahmed, R., Chen, X. H., Kumpamool, C., & Nguyen, D. T. K. (2023). Inflation, Oil Prices, and Economic Activity in Recent Crisis: Evidence from the UK. *Energy Economics*, 106918. <https://doi.org/https://doi.org/10.1016/j.eneco.2023.106918>
- Alamsyahbana, M. I. (2022). *Suku Bunga SBI, Kurs Valuta Asing, dan Inflasi terhadap Kinerja Saham Indeks pada Perusahaan LQ45*. CV Azka Pustaka. <https://books.google.co.id/books?id=0jRrEAAAQBAJ>
- Anis, A., Putra, H. S., Alfarina, N., & Azhar, Z. (2019). Analysis of the Effectiveness of Monetary Policy Transmission (Evidence in Indonesia and Thailand). 97(*Piceeba*), 76–84. <https://doi.org/10.2991/piceeba-19.2019.9>
- Aqidah, N. A., Ishak, Takdir, & Azzahra, M. (2022). Analisis Efektivitas Transmisi Kebijakan Moneter Melalui Instrumen Syariah dan Konvensional dalam Memengaruhi Inflasi di Indonesia. *Owner: Riset & Jurnal Akuntansi*, 6(3), 2345–2353. <https://doi.org/10.33395/owner.v6i3.990>
- Bawono, A., Laksana, K. U., Nabila, R., & Himmati, R. (2021). Effectiveness of Islamic Monetary Policy Transmission on Inflation and Economic Performance. *Shirkah: Journal of Economics and Business*, 6(3), 336–360. <https://doi.org/10.22515/shirkah.v6i3.432>
- Ben Romdhane, Y., Kammoun, S., & Loukil, S. (2024). The Impact of Fintech on Inflation and Unemployment: the Case of Asia. *Arab Gulf Journal of Scientific Research*, 42(1), 161–181. <https://doi.org/10.1108/AGJSR-08-2022-0146>
- Bildirici, M. E., & Sonustun, F. O. (2018). Backward Bending Structure of Phillips Curve in Japan, France, Turkey and the U.S.A. *Economic Research-Ekonomika Istrazivanja*, 31(1), 537–549. <https://doi.org/10.1080/1331677X.2018.1441046>
- Damayanti, D. A., & Purwanti, E. Y. (2021). Pengaruh Otomasi terhadap Eksistensi Kurva Phillips di Negara Open Economy OECD. *Indonesian Journal of Development Economics*, 4(1), 1033–1043.
- Darmawan. (2022). *Manajemen Keuangan Internasional*. FEBI UIN Sunan Kalijaga. <https://books.google.co.id/books?id=95RsEAAAQBAJ>
- Duodu, E., Baidoo, S. T., Yusif, H., & Frimpong, P. B. (2022). Money Supply, Budget Deficit and Inflation Dynamics

- in Ghana: an Empirical Investigation. *Cogent Business & Management*, 9(1), 2043810. <https://doi.org/10.1080/23311975.2022.2043810>
- Durguti, E., Tmava, Q., Demiri-Kunoviku, F., & Krasniqi, E. (2021). Panel Estimating Effects of Macroeconomic Determinants on Inflation: Evidence of Western Balkan. *Cogent Economics & Finance*, 9(1), 1942601. <https://doi.org/10.1080/23322039.2021.1942601>
- Dwihapsari, R., Kurniaputri, M. R., & Huda, N. (2021). Analisis Efektivitas Kebijakan Moneter dalam Perspektif Konvensional dan Syariah terhadap Inflasi di Indonesia Tahun 2013-2020. *Jurnal Ilmiah Ekonomi Islam*, 7(2), 980–993. <https://doi.org/10.29040/jiei.v7i2.2368>
- Emeru, G. M. (2020). The Determinants of Inflation in Ethiopia: A Multivariate Time Series Analysis. *Journal of Economics and Sustainable Development*, 11(21). <https://doi.org/10.7176/jesd/11-21-06>
- Ezako, J. T. (2023). Analyze of Inflation and Economic Growth Relationship in Burundi. *Cogent Economics and Finance*, 11(1). <https://doi.org/10.1080/23322039.2023.2210914>
- Gani, R. A., & Amaliah, I. (2021). Kausalitas Kebijakan Moneter Konvensional dengan Inflasi dan Pertumbuhan Ekonomi di Indonesia Periode Q1 2008 – Q4 2020. *Jurnal Riset Ilmu Ekonomi Dan Bisnis*, 1(1), 66–74. <https://doi.org/10.29313/jrieb.v1i1.203>
- Hartono, J. (2022). *Portofolio dan Analisis Investasi: Pendekatan Modul*. Penerbit Andi. <https://books.google.co.id/books?id=s7mBEAAAQBAJ>
- Hasan, S., Elpisah, E., Sabtohadji, J., M, N., Abdullah, A., & Fachrurazi, F. (2022). *Manajemen Keuangan*. Widina.
- Hasna, S. N., Kusnendi, & Wulandari, N. S. (2019). Comparison Effectiveness of Conventional and Islamic Monetary Policies Controlling Inflation in Indonesia Period 2012-2018. *KnE Social Sciences*, 3(13), 32. <https://doi.org/10.18502/kss.v3i13.4194>
- Hodijah, S., & Simamora, L. (2021). Pengaruh Tingkat Pengangguran, Inflasi dan Negara Sasaran terhadap Perdagangan Internasional Indonesia. *Jurnal Paradigma Ekonomika*, 16(2), 247–254. <https://doi.org/10.22437/jpe.v16i2.12554>
- Ika, S., & Kemu, S. Z. (2016). Transmisi BI Rate sebagai Instrumen untuk Mencapai Sasaran Kebijakan Moneter. *Kajian Ekonomi Dan Keuangan*, 20(3), 261–284. <https://doi.org/10.31685/kek.v20i3.208>
- Ishak, Aqidah, N. A., & Rusydi, M. (2022). Effectiveness of Monetary Policy Transmission Through Sharia and Conventional Instruments in Influencing Inflation in Indonesia. *Ikonomika : Jurnal Ekonomi Dan Bisnis Islam*, 7(1), 41–56.
- Islam, M. S. (2022). Impact of Socioeconomic Development on Inflation in South Asia: Evidence from Panel Cointegration Analysis. *Applied Economic Analysis*, 30(88), 38–51. <https://doi.org/10.1108/AEA-07-2020-0088>
- Jahroni, Suharno, & Malau, N. A. (2023). *Konsep Dasar Perbankan*. Cendikia Mulia Mandiri. <https://books.google.co.id/books?id=me-2EAAAQBAJ>
- Juhro, S. M. (2021). *Pengantar Kebanksentralan: Teori dan Kebijakan*. PT. RajaGrafindo Persada. <https://books.google.co.id/books?id=p14aEAAAQBAJ>
- Khieu, H. Van. (2021). Budget Deficits, Money Growth and Inflation: Empirical Evidence from Vietnam. *Fulbright Review of Economics and Policy*, 1(1), 61–78. <https://doi.org/10.1108/frep-05->

- 2021-0030
- Madurapperuma, W. (2023). Money Supply, Inflation and Economic Growth of Sri Lanka: Co-Integration and Causality Analysis. *Journal of Money and Business*. <https://doi.org/10.1108/jmb-08-2022-0039>
- Mansur, S., Waibo, Z., & Hasnin, M. (2023). Analisis Pertumbuhan Ekonomi, Pengeluaran Konsumsi Rumah Tangga dan Tingkat Suku Bunga terhadap Inflasi di Provinsi Maluku Utara. *Jurnal Ekonomi Pembangunan Unkhair*, 14(1), 1–12.
- Mishkin, F., Sufi, A., & Hooper, P. (2019). The Phillips Curve: Dead or Alive. *Centre for Economic Policy Research*. <https://cepr.org/voxeu/columns/phillips-curve-dead-or-alive>
- Modugu, K. P., & Dempere, J. (2022). Monetary Policies and Bank Lending in Developing Countries: Evidence from Sub-Saharan Africa. *Journal of Economics and Development*, 24(3), 217–229. <https://doi.org/10.1108/jed-09-2021-0144>
- Muslimin, D., Majid, M. N., Effendi, N. I., Simarmata, N., Ristiyana, R., Langelo, W., Safitri, T. A., Seto, A. A., & Amane, A. P. O. (2023). *Metodologi Penelitian Kuantitatif dan Kualitatif*. Get Press Indonesia.
- Nisa, R., Hayati, B., & Yusuf, E. (2018). Effectiveness of Monetary Policy Transmission Mechanism in Indonesia. *Jejak: Jurnal Ekonomi Dan Kebijakan*, 11(1), 189–206. <https://doi.org/10.15294/jejak.v11i1.12385>
- Nuruliya, D. (2020). Analisis Komparasi Mekanisme Transmisi Kebijakan Moneter Konvensional dan Syariah Saluran Harga Aset terhadap Inflasi di Indonesia. *Jurnal Ilmiah Mahasiswa FEB*, 4(2), 1–17. <https://jimfeb.ub.ac.id/index.php/jimfeb/article/view/6632>
- Petrovska, M., & Nikolov, M. (2018). The Determinants of Core Inflation in the Republic of Macedonia. *Journal of Contemporary Economic and Business Issues*, 5(1), 25–34. <http://hdl.handle.net/10419/193482>
- Rohmana, Y., & Utami, S. A. (2023). Inflation Through the Transmission Of Islamic And Conventional Monetary Policy In Indonesia. *Amwaluna: Jurnal Ekonomi Dan Keuangan Syariah*, 7(1), 29–57.
- Sadat, A. (2022). *Tata Kelola Keuangan Pemerintahan*. Deepublish. https://books.google.co.id/books?id=_mhIEAAAQBAJ
- Sarbaini, & Nazaruddin. (2023). Pengaruh Kenaikan BBM terhadap Laju Inflasi di Indonesia. *Jurnal Teknologi Dan Manajemen Industri Terapan*, 2(1), 25–32. <https://doi.org/10.55826/tmit.v2ii.132>
- Sean, M., Pastpipatkul, P., & Boonyakunakorn, P. (2019). Money Supply, Inflation and Exchange Rate Movement: The Case of Cambodia by Bayesian VAR Approach. *Journal of Management, Economics, and Industrial Organization*, November 2018, 63–81. <https://doi.org/10.31039/jomeino.2019.3.1.5>
- Selim, M. (2015). Effectiveness of Sukuk as a Tool of Monetary Policy. *Journal of Islamic Economics Banking and Finance*, 11(3), 47–60. <https://doi.org/10.12816/0024440>
- Serfiyani, C. Y., Purnomo, S. D., & Hariyani, I. (2021). *Capital Market Top Secret: Ramuan Sukses Bisnis Pasar Modal Indonesia*. Andi. <https://books.google.co.id/books?id=LflfEAAAQBAJ>
- Sharaf, M. F., & Mahmoud, A. (2023). Does External Debt Drive Inflation in Sudan? Evidence from Symmetric and Asymmetric ARDL approaches. *Journal of Business and Socio-Economic*

- Development*, 116856. <https://doi.org/10.1108/JBSED-03-2023-0023>
- Siregar, Z. A., Ridwan, M., & Batubara, M. (2023). Causality Analysis Between Inflation, JUB, SBIS, PUAS and SBSN Using Cointegration and Granger Causality Approach. *Jurnal Akuntansi Dan Pajak*, 23(02), 1–22.
- Sisay, E., Atilaw, W., & Adisu, T. (2022). Impact of Economic Sectors on Inflation Rate: Evidence from Ethiopia. *Cogent Economics and Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2123889>
- Solikin, P. (2016). *Kebijakan Moneter di Indonesia*. Pusat Pendidikan dan Studi Kebanksentralan (PPSK) Bank Indonesia.
- Sudarmanto, E., Pardiansyah, E., Syamsiyah, N., Asbarini, N. F. E., Irfayunita, F., Suhartini, N., Aryanti, Y., Sukma, S. R. R., Hidayati, S. N., & Alrasyid, H. (2023). *Ekonomi Makro Islam*. Global Eksekutif Teknologi. <https://books.google.co.id/books?id=Wku-EAAAQBAJ>
- Sudarsono, H. (2017). Analisis Efektivitas Transmisi Kebijakan Moneter Konvensional dan Syariah dalam Mempengaruhi Tingkat Inflasi. *Jurnal Ekonomi & Keuangan Islam*, 3(2), 53–64. <https://doi.org/10.20885/jeki.vol3.iss2.art1>
- Sukmana, R., & Wicaksana, A. A. F. (2019). Monetary Policy and Inflation in Indonesia: The Role of Dual Banking System. *KnE Social Sciences*, 3(13), 71. <https://doi.org/10.18502/kss.v3i13.4196>
- Sup, D. F. A. (2022). *Pengantar Perbankan Syariah di Indonesia: Sejarah, Perkembangan, Regulasi, dan Fatwa*. Unida Gontor Press. <https://books.google.co.id/books?id=VXGCEAAAQBAJ>
- Yulistiyono, A., Gunawan, E., Widayati, T., Firmansyah, H., Malau, N. A., Megaster, T., Ekopriyono, A., Nurhayati, T. P. T., Siahaan, A. L. S., & Suharno, S. (2021). *Bonus Demografi sebagai Peluang Indonesia dalam Percepatan Pembangunan Ekonomi*. Insania. <https://books.google.co.id/books?id=XSU5EAAAQBAJ>
- Zaelina, F. (2018). Mekanisme Transmisi Kebijakan Moneter Syariah. *Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE)*, 1(1), 19–30. <https://doi.org/10.31538/ijse.v1i1.69>
- Zivkova, D., Kovacevicb, J., & Papic-Blagojevic, N. (2020). Measuring the Effects of Inflation and Inflation Uncertainty on Output Growth in the Central and Eastern European Countries. *Baltic Journal of Economics*, 20(2), 218–242. <https://doi.org/10.1080/1406099X.2020.1846877>