# Analysis of Monetary Policy Mechanism Through Interest Rate Path to Stock Market (IHSG) in Indonesia

Rifqah Pratiwi Siregar<sup>1</sup>, Ahmad Albar Tanjung<sup>2</sup>, M. Syafii<sup>3</sup>

<sup>1</sup>Posgraduate Students, Faculty of Economics and Business, Department of Economics, Universitas Sumatera Utara, Indonesia

<sup>2,3</sup>Postgraduate Lecturer, Faculty of Economics and Business, Department of Economics, Universitas Sumatera Utara, Indonesia

Corresponding Author: Ahmad Albar Tanjung

DOI: https://doi.org/10.52403/ijrr.20230132

#### ABSTRACT

This study aims to determine the effectiveness of the influence of the monetary policy mechanism through the interest rate channel on the stock market (IHSG) in Indonesia. In addition, this study aims to determine the strength of the variables contained in the interest rate channel in response to stock market conditions (IHSG) in Indonesia. This study uses the Vector Error Correction Model (VECM) regression model in estimating the influence of the monetary policy transmission mechanism through the interest rate channel on the stock market (IHSG) in Indonesia. The data used in this study is secondary data with monthly time series from 2015 to 2022. The secondary data used comes from annual reports that are officially published on the Bank Indonesia website. The research variables used to estimate the influence of the interest rate channel monetary policy transmission mechanism on the stock market (IHSG) are the BI rate, interbank money market interest rate (PUAB), deposit rate, Covid 19 and the composite stock price index. The results of this study indicate that the effectiveness of the monetary policy mechanism through the effective interest rate channel for the stock market (IHSG) in Indonesia. This effectiveness can be seen in the short and long term, the major changes in the JCI response were influenced by the impact of shocks from the interest rate channel. However, it should be noted that in the long run the Covid-19 conditions have a large influence on the JCI,

followed by deposit rates. interest rates are in the shock of deposit rates which have an influence on the JCI.

*Keywords: Monetary Policy Transmission Mechanism, JCI, Vector Error Correction Model (VECM).* 

#### **INTRODUCTION**

The state of the economy will experience stability and shocks, the economy will not be stable forever there must be conditions of increasing and also declining. The occurrence of such a situation can certainly be caused by many aspects that can trigger the occurrence of a crisis that is not expected to occur at all. The creation of the crisis is certainly caused by shocks that occur which have an impact on the economic order.

One indicator that has an influence on the economy is the condition in the stock market or capital market, where when the capital market increases it will encourage an increase in capital availability so that economic activity moves so as to encourage economic improvement. One that is in the capital market is securities or shares, one of which is the composite stock price index is an index that shows the movement of stock prices in general listed on the stock exchange as a reference for the development of activities in the capital market. IHSG can

be used to assess the general market situation or measure whether the stock price has increased or decreased. IHSG also involves all stock prices listed on the exchange.

Capital market conditions are certainly not always conducive, but also experienced turmoil that triggered economic problems such as the conditions that occurred in 2015 was a hectic year, where in early 2015 the Composite Stock Price Index (IHSG) has decreased by 18% this happened because of several things including First, speculation the Fed's benchmark interest rate hike is uncertain when it will happen so that it encourages capital outflows. Second, global economic pressures, including China's slowdown. economic prompted the government to devalue the yuan. Third, the downward trend in world crude oil prices, which has implications for the decline in other world commodity prices so as to suppress the country's fiscal receipts. So that it encourages investors to divert their funds in order to avoid reskio it encourages situations that can trigger a crisis that can have risks in the future.

According to Febrivanti (2020),the Indonesian capital market is an emerging market that in its development is very vulnerable general macroeconomic to conditions as well as global economic conditions and World Capital Markets. Macroeconomic influences do not affect the company's performance immediately but slowly and over a long period of time. On the other hand, stock prices will be affected immediately by changes in macroeconomic factors because investors react more quickly. When macroeconomic changes occur, investors will take into account the impact both positive and negative on the company's performance in the next few years, then make decisions to buy, sell or hold the shares concerned.

The following can be seen the development of the composite stock price index (IHSG) in Indonesia 2015 – 2021:



Source: IDX, (2022) Figure 1 IHSG development in Indonesia 2015-2021

Based on the picture above, it can be seen that the IHSG trend in Indonesia 2015 -2021 which shows an increasing trend, but judging from the development of data, the movement is quite slow. Stock market conditions during the covid19 pandemic in 2020 showed that IHSG fell compared to the previous period where IHSG development actually increased, stock market conditions fell as of 2020.

The condition that occurred in 2020 with the Composite Stock Price Index (IHSG) was at

the level of 6,300. The pandemic had brought the IHSG to its lowest point since 2015, at 3,937 on March 24, 2020. Where this condition is different from previous years, the global economy and Indonesia in 2020 faced tremendous challenges due to the COVID-19 pandemic. This pandemic has disrupted business in many industries, so the global economy is contracting with negative growth

The capital market has a very important role in the economic life of a country, especially

in the process of allocating public funds. With the capital market, it is expected that economic activity will increase because the capital market is an alternative funding for companies, so that companies can operate on a larger scale and in turn will increase company revenues and prosperity of the wider community. the capital market is also sensitive to various events surrounding it, both related and not directly related to economic issues. Things that are not related to economic issues are political political events, Security, psychology, facilities and infrastructure of the capital market, the behavior of exchange members and others.

The existence of the capital market is very important in economic activities, this is where the economic function of the capital market as a container that connects the overfunded with underfunded parties so as to create investment activities that can be a driver of the economy. One of the important components in the capital market is the stock price which is highly dependent on various speculations that can affect the condition of the development of the stock price itself. So this will greatly determine the movement of funds in the capital market.

Investing in the stock market is often faced with high risks because stock prices are volatile and Stochastic. Stock prices move in seconds and minutes, then the index value also moves up and down in a matter of fast time too. Stock price indices are often used as stock indicators that investors use to sell and buy stocks. Changes in the stock price index can occur due to changes in stock prices on the exchange or due to changes in the total base value of shares.

This uncertainty that occurred during the covid19 period soared and hit all over the country, as a new type of pandemic that has not found a solution so that it has an impact on many economic activities, one of which is uncertainty in the capital market, especially related to the movement of the composite stock price index (IHSG). This is due to the impact resulting from various activities that are the impact of covid19 control policies. This is evidenced by the decline in IHSG from area 6300 to area 3900 within three months showing that the existing pandemic is indeed very severe.

The first time covid was confirmed in Indonesia was March 2, 2020 which greatly triggered market speed plus the increase in new cases that continued to increase so that it was difficult to control, so that at that time various economic activities seemed to stop, triggering investor distrust for funds released in the capital market. The development of covid19 cases in Indonesia can be seen in the following picture:



New cases of covid19 seen as of March 2020 continued to increase until the beginning of 2021, this explained that in the early period of covid it was difficult to overcome because there was no drug that could solve the covid problem. The transmission of the virus, which is very

difficult to control because it is very easy to spread, is the reason why the covid19 pandemic continued to increase until early 2021.

So that this encourages the government to take various policies in an effort to curb the spread of covid19, the first thing to do is on

March 31, 2020 the signing of Government Regulation Number 21 of 2020, which regulates large-scale social restrictions in response to Covid-19. This certainly triggers various responses for the community and economic actors.

So with the various reactions from the policy, of course, to avoid various problems that can occur, the government carries out various policies, including through fiscal policy, the government provides tax facilities in the form of relaxation of Article 29 income tax payments and reporting of income tax return. It is hoped that the macro-micro policy to counter the Covid-19 outbreak will be able to maintain the positive expectations of all economic entities, both domestically and abroad.

In addition, monetary policy was also carried out to overcome the impact caused by the PSBB policy in overcoming the spread of covid, what was done was Bank Indonesia lowered the BI 7 Day Reverse Repo Rate (BI7DRR) policy interest rate liquidity and carried out injection (quantitative easing) to encourage economic growth and ensure financial system stability. Where liquidity easing is carried out to maintain adequate banking liquidity conditions so that it can maintain financial stability and encourage system the intermediation function to support economic recovery from the impact of Covid-19. Efforts to reduce the BI 7 day Reverse Repo Rate (BI7DRR) interest rate aim to encourage national economic recovery so that it will be able to boost business growth, overcome unemployment and maintain investment interest rates. The policy of lowering interest rates is certainly part of the transmission mechanism through the path, emphasizing interest rate that monetary policy can affect aggregate demand through changes in interest rates. In this case, the effect of changes in short-term interest rates is transmitted on medium/long-term interest rates through the mechanism of balancing the demand and supply sides in the money market. The development of interest rates will affect the cost of capital, which in turn will affect spending, investment and consumption which are components of aggregate demand. importance of monetary The policy transmission mechanism the interest rate path is very good in facing the crisis this is evidenced by (Goeltom, 2008) whose research looks at the conditions that occurred before and after the monetary crisis in 1998, explaining that the interest rate path still functions quite well in transmitting monetary policy, although the magnitude is influenced by the condition of the banking system and higher risk factors and uncertainty as a whole. Financial accelerator effect of monetary policy, especially after the crisis. A similar impulse response is obtained if we use the central bank interest rate as a policy variable, although the effect of changes in the SBI interest rate seems to be more pronounced than changes in the central bank interest rate.

The explanation illustrates that the pandemic conditions that are currently sweeping the world have an impact on economic conditions, which affect national economic conditions. But the problem is to see the conditions that occur in the movement of the IHSG whether the policy of lowering interest rates is favorable for the movement of the IHSG.

As explained by Taylor (1995), the mechanism of monetary policy transmission is "the process through which monetary policy decisions are transmitted into changes in real GDP and inflation". In monetary economics literature, the study of monetary policy transmission mechanisms generally refers to the role of money in the economy, first described by the Quantity Theory of Money.

The theory essentially describes a clear framework for the analysis of the systematic direct relationship between the growth of the money supply and inflation, expressed in an identity known as the Equation of Exchange. According to Mohanty (2012), the transmission of monetary policy has evolved over the years, with crisis episodes

playing an important role in driving the revaluation of previous principles. This was emphasized by Keynes in his general theory of output and the work illustrates the importance of monetary policy transmission in the interest rate channel.

On the interest rate path, changes in the BI 7 day Reverse Repo Rate (BI7DRR) affect deposit interest rates and bank lending rates as reflected in the ATAR bank money market interest rate (PUAB). Bank Indonesia can use tight monetary policy through increased interest rates that have an impact on aggregate demand so as to reduce inflationary pressures. Changes in the BI 7 Day Reverse Repo Rate (BI7DRR) also affected the macro economy. Rising interest rates will lower the price of assets such as stocks, thereby reducing the wealth of individuals and companies which in turn reduces their ability for economic activities such as consumption and investment. This will reduce aggregate demand thereby lowering inflationary pressures.

In theory, Gordon's growth Model theory states that a decrease in interest rates will encourage an increase in stock prices because when the central bank lowers interest rates it is likely to encourage an increase in the economy so that the dividend rate will be greater thereby encouraging an increase in stock prices this is what explains that stock prices as a means of monetary policy in influencing the economy (Mishkin, 2020).

A decrease in the BI benchmark interest rate will have a positive effect on the Composite Stock Price Index (IHSG). However, the biggest influence on the movement of IHSG in the future still comes from the development of the Covid - 19 pandemic, especially domestically. the positive effect of bi's benchmark interest rate cut on IHSG is relatively limited (Astuti & Hastuti, 2020). The following can be seen the development of interest rates in Indonesia in recent years:



Figure 3 BI 7 Day interest rate development Reverse Repo Rate (BI7DRR) 2015-2021

Based on Figure 3, we can see the development of the BI 7 Day Reverse Repo Rate (BI7DRR), which from 2015 to 2021 tends to experience a downward trend. In 2020, interest rates actually showed a decrease which at that time was a pandemic that suddenly changed everything in this life, and the policy was carried out by lowering interest rates to maintain national economic conditions, when viewed from the graph above the interest rate trend when there was a covid19 pandemic showed a When negative trend decreased. or

compared to before covid19, there are differences in Indonesia's interest rate movements.

The interest rate channel emphasizes the importance of pricing in financial markets to economic activity in the real sector. In this regard, the monetary policy adopted by the central bank will affect the development of various interest rates in the financial sector and the monetary policy mechanism will certainly aim at real output.

An understanding of monetary transmission can give an idea of how, how strong, and

how long monetary policy can affect real economic activity and the achievement of set end goals. Conversely, weakness in understanding the monetary policy transmission mechanism will lead to less effective monetary policy not only in affecting real economic activity but also in achieving the final targets set (Warjiyo, 2004).

The monetary policy adopted by the central bank will affect the development of shortterm interest rates (eg SBI and PUAB interest rates) in the rupiah money market. The transmission of interest rates from the financial sector to the real sector will depend on their effect on consumption demand and investment in the economy. One interesting phenomenon that occurred in PUAB is an indication of the existence of dominant players in the market. So monetary policy, especially the path of interest rates related to the banking sector will feel a tremendous influence.



Figure 4 development of PUAB in Indonesia (2022)

In the picture above, it can be seen that the January 2017 PUAB interest rate tends to be stable but in 2018 PUAB has increased until mid-2019 and then continues to decline in 2021. The PUAB interest rate is the price formed from the agreement of the parties who borrow and lend funds.

The movement of foreign exchange rates tend to decline in addition to that reinforced by the trend of data showing a decline. This condition is certainly caused by economic uncertainty that occurs due to the pandemic which makes all activities unpredictable. The Model developed by Rousseas (1985) is called the marginal cost pricing model which states that changes in the interest rate of the bank's cost of funds will be passed on in the form of changes in the bank's interest rate to its customers, because this reflects changes in the marginal cost of the bank. The following can be seen the development of deposit rates in Indonesia:



Source: Bank Indonesia (2022) Figure 5 Development of Deposit Interest Rate in Indonesia 2015-2021

Based on the picture above, it can be seen that the deposit interest rate has a tendency to decrease, this condition will certainly have an impact on the policy interest rate. The mechanism of monetary policy will certainly have a relationship with stock prices, Gordon's growth Model (Mishkin, 2020), which explains the relationship between monetary policy and stock prices which in theory is explained that when interest rates decline will have an impact on low returns on investment, so that what is triggered actually triggers stock prices to increase. In addition, the theory of rational expectations also explains that the results of the stock price will be driven due to one's expectations.

Redo (2018), discusses the Stock Market Channel in the Monetary Policy Transmission Process that in the short term interest rates and stocks show a negative relationship. In addition (Karim & Karim, 2014) reviewing Interest Rates Targeting of Monetary Policy: An Open Economy SVAR Study of Malaysia explains that during interest rate targeting, monetary policy plays an important role in influencing macroeconomic variables. These findings suggest that monetary policy has an important role as stabilization policy in the economy. Likewise, (Sethi, Baby, & Dar, 2019), explained that changes in policy rates have an impact on output growth.

But in contrast to the study (Huh & Lee, 2021) it was found that interest rates were ineffective as a monetary policy tool. Similarly, (Teapon & Mustafa, 2018) found that monetary policy transmission in Indonesia is still weak in influencing inflation but very strong in stimulating economic growth. (Alfarina & Aimon, 2020), explained that the policy interest rate has a significant positive effect on portfolio investment in the long term in Indonesia but while in the United States the interest rate in the long term has a significant negative effect on portfolio investment.

Hasminisiarty (2016), reviewing monetary policy and its effect on the Indonesian capital market found a negative relationship between inflation and the Composite Stock Price Index (IHSG) but did not have a significant effect. The results of the study conducted by (Le & Pfau, 2009), it is seen that in the path to analyze the mechanism of monetary policy in the study actually showed that credit and exchange rate channels are more important than interest rate channels, besides that monetary policy can affect real output.

Likewise, research conducted by (Astuti & 2020), that Hastuti, explained the transmission of monetary policy through the interest rate channel has been effective where the reduction in the benchmark interest rate can be responded to quickly by interbank money market interest rates, banking interest rates, stock prices. A study conducted (Asiedu, by Oppong, & Gulnabat, 2020), that in the monetary policy mechanism in Africa it is known that there is a relationship between monetary policy and the money market, besides that the monetary policy mechanism then moves to the money supply which has a long-term impact on the stock market.

In addition (Tanjung, Ruslan, ubis, & Pratama, 2022) examines the reaction of the stock market to COVID-19, monetary policy, and other macroeconomic variables. Covid-19 had a significant impact on the Indonesian stock market before vaccination, but after vaccination it had no significant effect on the Indonesian stock market. In the period before the implementation of the National Vaccine in Indonesia, new Cases (NEC) had an unusually unfavorable impact on the Indonesian stock market.

So based on the previous explanation, where the covid19 pandemic has an impact on economic conditions, one of which is the stock market condition seen from the IHSG as of March 2020 falling due to the uncertainty of economic conditions at that time, furthermore, the need for policies to maintain capital market stability one of the policies carried out is monetary policy, one form of monetary policy mechanism is through the interest rate path which will later have an impact on the stock market.

## LITERATURE REVIEW

#### **Monetary Policy**

Monetary policy is the policy of the central bank in the form of monetary control to achieve the desired development. These developments are macroeconomic stability reflected by price stability (low inflation) good economic growth and the availability of jobs (Firdaus & Ariyanti, 2011).

# Monetary Policy Through The Path Of Interest Rates

Interest rate targeting is used as an operational target while monetary targeting uses the money supply as an operational target. In Indonesia, the BI rate signals the operational interest rate set by Bank Indonesia (Pohan, 2008). Through an increase in interest rates the cost of funds

and the cost of capital will increase. With the increase in costs, the desire for investment and consumption becomes lower and will reduce aggregate demand and will control inflation.

#### Shares

Shares are a sign of participation or ownership of a person or entity in a company or limited liability company that aims to obtain results in the form of profits from the sale of these shares. According to Mishkin (2021), a stock is a security that has a claim to the income and assets of a company. Securities itself can be interpreted as a claim on the future income of a borrower sold by the borrower to the lender, often also called financial instruments.



Source: Conceptual Framework, 2022 Figure 6. Conceptual Framework

# Hypothesis

Based on background research and the relationship between variables, the research hypothesis:

- 1. The mechanism of monetary policy through the interest rate channel effectively affects the stock market (IHSG) in Indonesia.
- 2. Variable interest rate path has a strong effect in responding to stock market conditions (IHSG) in Indonesia?

# **MATERIAL AND METHODS**

This study was conducted in Indonesia where in this study examines the mechanism of monetary policy through the path of interest rates to the stock market (IHSG) in Indonesia, while the time of the study was conducted using time series data, namely

monthly data for January 2015 – March 2022, which in this study will look at the transmission path of monetary policy between short, medium and long-term relationships between the analyzed variables. The selection of the research time is based on the year that experienced the Covid-19 pandemic and the previous year before the pandemic occurred, this study uses data starting from 2015 the selection of the research Year is based because in 2015 the IHSG experienced a low decline which triggered economic problems.

This study uses secondary data in the data that has been collected by data collection agencies and published in the data user community (Kuncoro, 2009). Secondary Data in this study were also obtained from books, journals, internet, previous research,

notes and other sources with research problems. Secondary Data is also data that has been available and processed by other parties as a result of previous research.

Data collection techniques in this study was conducted through the study of literature (library research) is by collecting data derived from a variety of literature related to the problems raised in the research and documentation techniques. Secondary data can be obtained from SEKI (Indonesian economic and Financial Statistics) Bank Indonesia North Sumatra, Central Statistics Agency and Investment Coordinating Board of North Sumatra province.

The study was conducted by quantitative descriptive method using Vector Autoregression (VAR) regression to determine the relationship between variables and the contribution of each variable to changes in other variables. Although there are other simpler methods to determine the relationship between variables, for example with Ordinary Least Squares (OLS) but not like with VAR. VAR can be used to analyze the relationship between variables, VAR can also see the movement of response and variability of all variables during the study period, namely through the results of impulse response and variance decomposition either by graph or table.

## RESULTS

#### **Cointegration Test**

Cointegration test is performed using Cointegration Rank Test (Trace) to determine the balance of long - term relationships among variables in the model. If there are two variables that are not stationary and have a linear combination where the residuals are stationary, it can be said that the two variables are cointegrated. To see the cointegrated variables in the long term is shown by trace statistics > critical value 5%. If cointegrated in the long run the variables will affect each other.

Because it is obtained from the results of the stationary test in the form of first difference in the analysis of the effectiveness of monetary policy transmission path of interest rates on stock prices, the cointegration test is carried out to see whether all variables have a long-term relationship or cointegrate.

The following are the results of the cointegration test on the BI rate, PUAB, deposit rate, Covid-19 and IHSG variables, which are variables found in the transmission of monetary policy along the interest rate path:

Table 1 Contegration Test Results					
Unrestricted Cointegration Rank Test (Trace)					
Hypothesized		Trace	0.05		
No. ofCE(s)	Eigenvalue	Statistic	CriticalValue	Prob.**	
None*	0.408594	135.8008	69.81889	0.0000	
At most 1*	0.388814	92.20475	47.85613	0.0000	
At most 2*	0.311671	51.33933	29.79707	0.0001	
At most 3*	0.149989	20.33974	15.49471	0.0086	
At most 4*	0.079236	6.851759	3.841466	0.0089	

Table 1 Cointegration Test Results

Source: Processed Eviews, 2022

Based on the above tests, it can be concluded that the variables BI rate, PUAB, deposit interest rate, Covid-19 and IHSG have a long-term relationship or cointegration, which is shown by trace statistics > critical value 5%. Furthermore, based on the cointegration test obtained the overall hypothesized prob value is small than 0.05 so that in testing using VECM. Previously, it was necessary to look at the

Previously, it was necessary to look at the estimation from the vecm equation to see the short-term and long-term relationship. To be seen more clearly in the following table:

Table 2 short-term VECM test results						
Error Correction:	D(IHSG)	D(BI_RATE)	D(COVID)	D(DEPOSITO)	D(PUAB)	
CointEq1	0.001445	-1.14E-05	19.62720	-9.53E-05	7.83E-05	
	(0.03542)	(2.3E-05)	(16.0148)	(2.7E-05)	(3.4E-05)	
	[ 0.04080]	[-0.49763]	[ 1.22557]	[-3.49652]	[ 2.33711]	
D(IHSG(-1))	-0.078150	-3.59E-05	-19.72337	0.000136	-0.000119	
	(0.12270)	(7.9E-05)	(55.4816)	(9.4E-05)	(0.00012)	
	[-0.63694]	[-0.45231]	[-0.35549]	[ 1.43500]	[-1.02897]	
D(IHSG(-2))	0.021960	-4.22E-05	-29.75208	0.000196	-1.15E-05	
	(0.12349)	(8.0E-05)	(55.8395)	(9.5E-05)	(0.00012)	
	[ 0.17784]	[-0.52831]	[-0.53281]	[ 2.06567]	[-0.09840]	
D(BI_RATE(-1))	-71.53677	0.206430	-23727.17	0.300915	0.093987	
	(186.052)	(0.12028)	(84130.6)	(0.14325)	(0.17601)	
	[-0.38450]	[ 1.71630]	[-0.28203]	[ 2.10065]	[ 0.53399]	
D(BI_RATE(-2))	77.37682	0.243511	-31261.28	0.202702	0.544362	
	(180.430)	(0.11664)	(81588.3)	(0.13892)	(0.17069)	
	[ 0.42885]	[ 2.08769]	[-0.38316]	[ 1.45913]	[ 3.18916]	
D(COVID(-1))	-2.70E-05	-3.07E-08	0.091311	-7.05E-07	1.11E-07	
	(0.00025)	(1.6E-07)	(0.11186)	(1.9E-07)	(2.3E-07)	
	[-0.10914]	[-0.19216]	[ 0.81632]	[-3.70198]	[ 0.47477]	
D(COVID(-2))	-7.64E-06	-7.70E-08	-0.323721	1.23E-07	1.82E-07	
	(0.00027)	(1.8E-07)	(0.12414)	(2.1E-07)	(2.6E-07)	
	[-0.02782]	[-0.43366]	[-2.60765]	[ 0.58372]	[ 0.70204]	
D(DEPOSITO(-1))	-31.67440	-0.081767	31645.50	-0.186280	0.059399	
	(155.712)	(0.10066)	(70411.3)	(0.11989)	(0.14731)	
	[-0.20342]	[-0.81229]	[ 0.44944]	[-1.55377]	[ 0.40323]	
D(DEPOSITO(-2))	-53.82579	-0.080190	55353.76	0.017605	0.062620	
	(141.349)	(0.09138)	(63916.6)	(0.10883)	(0.13372)	
	[-0.38080]	[-0.87757]	[ 0.86603]	[ 0.16176]	[ 0.46829]	
D(PUAB(-1))	-44.18227	0.073979	22526.49	-0.190716	-0.171531	
	(114.644)	(0.07411)	(51841.0)	(0.08827)	(0.10846)	
	[-0.38539]	[ 0.99818]	[ 0.43453]	[-2.16062]	[-1.58156]	
D(PUAB(-2))	109.6004	-0.006536	7940.686	-0.162513	-0.059510	
	$(\overline{109.147})$	(0.07056)	(49355.2)	(0.08404)	(0.10326)	
	[ 1.00415]	[-0.09263]	[ 0.16089]	[-1.93383]	[-0.57634]	
С	15.72636	-0.033176	5237.954	-0.076417	-0.013892	
	(36.4215)	(0.02355)	(16469.4)	(0.02804)	(0.03446)	
	[ 0.43179]	[-1.40905]	[ 0.31804]	[-2.72507]	[-0.40320]	

Table 2 short-term VECM test results

Source: Eviews Processed Data, 2022

Based on Table 2 can be seen vecm estimation results in the short term as follows:

- 1. In the short term, changes in the IHSG in the last 2 quarters will significantly affect the current deposit rate, with a statistical t value of 2.06567 > compared to the table t value of 1.9879. This means that if the IHSG increased in the last 2 quarters by 1, the deposit interest rate increased by 9.5 E-05%.
- 2. In the short term changes in the BI Rate in the last 2 quarters will significantly affect the current BI Rate with a statistical t value of 2.08769 > from the table t value of 1.9879 and the current PUAB interest rate with a statistical t value of 3.18916 > from 1.9879. This means that if the BI Rate increased in the last 2 quarters by 1 %, the current BI rate increased by 0.116645% and if the BI Rate increased in the last 2 quarters

by 1 %, the current PUAB increased by 0.17069%.

- 3. In the short term covid19 changes in the last 1 quarter will significantly affect the current deposit interest rate, with a statistical t value of -3.70198 > compared to the table t value of 1.9879. This means that if covid19 increased in the last 1 quarter by 1 case, the deposit interest rate decreased by 1.9 E-07%. While the current covid19 in the last 2 quarters will significantly affect the current covid19 with a statistical t value of -2.60765 > compared to the table t value of 1.9879.
- 4. In the short term changes in the PUAB 1 quarter ago will significantly affect the current deposit interest rates, with a statistical t value of -2.16062 > compared to the table t value of 1.9879. This means that if the PUAB increased

in the last 1 quarter by 1%, the deposit interest rate decreased by 0.08827%.

Furthermore, in addition to the following short-term relationship can also be seen long-term relationship of view of the VECM model:

Cooking rating Elig	Cairt€i‡1	
H9G(-1)	1.800300	
BL_RATE(-1)	1751.436 (590.043)   3.12230]	
COVID(-1)	-0.003976 (0.00163) (-2.43780)	
DEPOSITO(-1)	-88.70591 (389.005) E0.22903]	
PUAB-1	-3673.654 (543.200) (-4.92130)	
c	-1092.385	

Source: Eviews Processed Data, 2022

Based on Table 3 can be seen long-term testing on VECM models. For more clarity can be seen as follows:

- 1. In the long run, the BI rate significantly affects the IHSG because the statistical t value is 3.12230 > from the table t value of 1.9879.
- 2. In the long run Covid19 significantly affects the IHSG because the statistical t value is -2.43780 > from the table t value of 1.9879
- 3. In the long run PUAB significantly affect the IHSG because the statistical t

value of -4.92135 > of the T table value of 1.9879

# **Granger Causality Test**

Granger causality test is used to determine the causal relationship of each independent variable to the dependent variable. The test levels used in this granger causality test, namely the confidence level of 0.05 (5%) and 0.10 (10%) and the lag length up to lag 2 according to the optimum lag length test that has been done. Granger causality results are shown in Table 4 as follows:

006	P-SiteMutric	Prop.
**	0.05.008 2.14991	0.9424
00	8.74517 2.36356	0.4779
**	0.703#4	0.1013
	1.06843	0.1040
	0.30029 3.52206	0.0343
65	0.14087 0.84001	0.0500
-	3.56566	0.032
	C.80134 5.53113	0.0076
9-6	1.66720	0.0718
	2.02044	0.1393
	0004 84 00 84 85 85 85 85 85 85 85 85 85 85 85 85 85	COL         P-Statutic           88         C.OKRCB           00         E.Schrift           00         E.Schrift           88         C.OKRCB           88         C.OKRCB           88         C.OKRCB           88         C.OKRCB           88         C.OKRCB           88         C.SCREB           88         C.SCREB           89         C.SCREB           80         C.SCREB           80         C.SCREB           82         C.SCREB           82         C.SCREB           84         C.SCREB           85         C.SCREB           86         C.SCREB           88         C.SCREB           88         C.SCREB           88         C.SCREB           88         C.SCREB

 Table 4 Granger Causality Test Results

Source: Processed Eviews, 2022

Based on the causality test, it is known that between BI rate and Covid-19 there is no causality relationship, both one-way and two-way, this can be seen from the large prob values of 0.05 and 0.10. Furthermore, between the deposit rate and the BI rate does not have a causal relationship but has a one-way relationship that affects the BI rate deposit interest rates it can be seen from the small prob value of 0.10 which is 0.0987 which means that when the BI Rate interest rate has increased it will encourage an increase in deposit rates. In addition, between the covid-19 variable and the deposit interest rate there is no causal relationship but has a one-way relationship, namely Covid-19 affects the deposit interest rate, which means that any increase in

covid19 will encourage an increase in the deposit interest rate.

In addition, the causality or reciprocal relationship between the BI rate and PUAB can be seen from the large prob values of 0.05 and 0.10. For variable deposit rate and IHSG has no causal relationship but has a one-way relationship seen from the small prob value of 0.05 is 0.0052 which means that if there is an increase in deposit rates will encourage changes in IHSG. Likewise, the PUAB interest rate and deposit interest rate which have no causal relationship but there is a one-way relationship that affects the PUAB deposit interest rate seen from the prob value of 0.0119 small of 0.05. This means that when the PUAB interest rate has increased it will encourage an increase in deposit rates.

# Structural Impulse Response Function (IRF)

Structural impulse response function (SIRF) analysis is used to determine the dynamic behavior of the VECM model. IRF analysis is used to determine how long it takes the dependent variable in response to changes in the independent variable.

This study aims to see the effectiveness of the monetary policy mechanism of the interest rate path to the IHSG, where the analyzed path includes the covid19 path to the next BI Rate to the PUAB interest rate, the deposit interest rate and the IHSG in the appendix. For a clearer response of each of these lines can be seen in the following figure:



Source: Processed Eviews, 2022 Figure 7 test results Structural Impulse Response Function (IRF)

From the picture, it can be explained that the Covid-19 response to the schok BI Rate from the 1st period to the 30th period stagnated and the 31-50 period increased. Furthermore, the response of PUAB to the shock of the deposit interest rate is positive (+) which from period 1 tends to increase sharply until the 50th period, the response of the deposit interest rate to the IHSG schok in the period 1 to period 5 is positive (+) and tends to stagnate but in the period 5 to period 50 the response tends to be negative (-) but the response tends to decrease very sharply.

Structural variance decomposition analysis is used to compile the forecast error variance of a variable, how much error variance of a variable is explained by the

shock that comes from the variable itself and from other variables. The greater the proportion of a variable in explaining error variance, the greater the role of that variable for other variables in the system.

Structural	Variance	Decomposition	Analysis	Results
------------	----------	---------------	----------	---------

Table 5 Results of Structural Variance Decomposition

Variance Decomposition of IHSG:						
Period	S.E.	IHSG	BI_RATE	COVID	DEPOSITO	PUAB
1	288.3532	100.0000	0.000000	0.000000	0.000000	0.000000
2	396.2640	99.69002	0.149012	0.020170	0.038649	0.102150
3	484.2654	99.52739	0.100961	0.042666	0.109496	0.219483
4	556.9343	99.54833	0.084690	0.054259	0.132780	0.179942
5	621.9922	99.51807	0.091725	0.091094	0.153563	0.145550
6	682.4955	99.45794	0.091998	0.148148	0.181020	0.120896
7	738.8817	99.36797	0.102353	0.208370	0.215975	0.105328
8	791.9448	99.28278	0.110769	0.262668	0.247831	0.095954
9	842.2668	99.18944	0.117895	0.321307	0.278346	0.093013
10	890.4022	99.09319	0.123997	0.381624	0.305996	0.095197
Variance Decomposition of BI_RATE:						
Period	S.E.	IHSG	BI_RATE	COVID	DEPOSITO	PUAB
1	0.186411	0.674318	99.32568	0.000000	0.000000	0.000000
2	0.296493	1.410956	97.47932	0.015687	0.231846	0.862192
3	0.411470	2.283522	96.11361	0.075764	0.629442	0.897663
4	0.517270	2.946229	95.20488	0.089069	0.777841	0.981982
5	0.614205	3.402052	94.56792	0.143988	0.927877	0.958159
6	0.703302	3.634904	94.22960	0.205690	1.034634	0.895174
7	0.784966	3.759693	94.00413	0.269352	1.135651	0.831177
8	0.860327	3.813241	93.86242	0.331421	1.224905	0.768009
9	0.930300	3.827419	93.76618	0.394319	1.302967	0.709118
10	0.995713	3.814062	93.70004	0.458113	1.372811	0.654973
Variance Decomposition of COVID:						
Period	S.E.	IHSG	BI_RATE	COVID	DEPOSITO	PUAB
1	130390.3	0.087209	0.022557	99.89023	0.000000	0.000000
2	187315.2	0.099388	0.025800	99.61101	0.086174	0.177627
3	206581.9	0.181323	0.021272	98.50051	0.556123	0.740770
4	220069.2	0.169975	0.025355	97.68910	0.653848	1.461727
5	238718.2	0.264530	0.026616	97.14789	0.582131	1.978831
6	257331.2	0.295556	0.022908	96.86483	0.524258	2.292452
7	272185.8	0.310701	0.022161	96.48076	0.508718	2.677660
8	285325.0	0.359523	0.020806	95.98118	0.494198	3.144289
9	298397.7	0.440777	0.019454	95.49190	0.467918	3.579951
10	311134.1	0.521517	0.019064	95.05281	0.441426	3.965187
Variance Decomposition of DEPOSITO:						
Period	S.E.	IHSG	BI_RATE	COVID	DEPOSITO	PUAB
1	0.222015	5.377505	0.025018	6.633442	87.96404	0.000000
2	0.284966	4.687793	0.768187	4.045345	90.14604	0.352630
3	0.351651	3.346965	1.685643	7.364648	86.22941	1.373331
4	0.431526	4.209138	1.870172	13.09268	75.52755	5.300465
5	0.517936	5.902662	1.830054	16.14449	67.46576	8.657037
6	0.605510	7.656202	1.908751	17.65170	61.68835	11.09500
7	0.693771	8.981579	2.002966	19.05777	56.84564	13.11205
8	0.783452	10.09703	2.056655	20.40387	52.66031	14.78214
9	0.873351	11.09780	2.083757	21.41544	49.22586	16.17713
10	0.962041	11.96986	2.100853	22.14122	46.46676	17.32131
Variance Decomposition of PUAB:						
Period	S.E.	IHSG	BI_RATE	COVID	DEPOSITO	PUAB
1	0.272790	1.997948	3.709220	0.122030	0.794386	93.37642
2	0.331466	2.898148	7.616964	0.847999	1.152112	87.48478
3	0.409967	2.278290	26.41431	1.360882	1.109022	68.83750
4	0.479577	1.768413	35.71579	2.647533	0.810616	59.05765
5	0.547797	1.428129	43.20486	3.972816	0.665691	50.72850
6	0.611100	1.185445	48.38121	5.129381	0.609912	44.69405
7	0.670114	0.993058	52.17879	6.409286	0.628798	39.79007
8	0.725705	0.847495	55.01331	7.704480	0.682345	35.75237
9	0.778060	0.750573	57.07940	8.974823	0.768815	32.42639
10	0.827626	0.697945	58.61355	10.18407	0.870733	29.63371

Source: Processed Eviews, 2022

# 1. IHSG Variance Decomposition Response to Impulse Bitrate, Covid-19, Deposit Interest Rate and PURAB

Based on table 5, it can be seen that of the 4 variables that contribute to the IHSG, namely the BI Rate, Covid-19, deposit rate and PUAB. Where from the overall variables, it is known that Bitrate is more capable to explain IHSG than deposit rate, Covid19 and PUAB. This is evident from the percentage variance decomposition of IHSG to BI Rate until the third period is 0.100961%. however, in the 4th to 50th period the deposit interest rate has an increasing contribution to the IHSG which is equal to 0.667183%. so if we look at it as a whole, the deposit interest rate has a greater contribution to the IHSG than the BI Rate, Covid19 and PUAB.

#### 2. BI rate Variance Decomposition Response to IHSG Impulse, Covid-19, deposit rate and PUAB

Based on table 5, it can be seen that from 4 variables that contribute to the BI Rate, namely IHSG, Covid-19, deposit interest rates and PUAB. Where from the overall variables, it is known that in the initial 5 period PUAB contributed greatly to explain the BI Rate compared to IHSG, deposit interest rates, Covid19 and PUAB. This is evident from the percentage of variance decomposition IHSG to period 5 is 0.605945%. however, in the 6th to 50th period, the deposit interest rate has an increasing contribution to the BI Rate of 2.201534%. so if you look at it as a whole that the deposit interest rate is greater contribution to the BI Rate compared to IHSG, Covid19 and PUAB..

# 3. Covid-19 Variance Decomposition Response to IHSG Impulse, BI rate, deposit rate and PUAB

Based on table 5, it can be seen that from 4 variables that contribute to Covid19, namely IHSG, BI Rate, deposit rate and PUAB. Where from the overall variables known that in the period 2 to 50 PUAB contributed most to Covid19 compared to IHSG, deposit interest rates, BI Rate and PUAB. This is evident from the percentage variance

decomposition of Covid19 PUAB to period 50 is 10.53565%. So if we look at it as a whole, the PUAB interest rate has a greater contribution to the BI Rate compared to the IHSG, BI Rate and deposit interest rates.

# 4. Variance Decomposition response of deposit rate to IHSG Impulse, BI rate, Covid-19 and PUAB

Based on table 5, it can be seen that from 4 variables that contribute to the deposit rate, namely IHSG, BI Rate, Covid19 and PUAB. Where from the overall variables is known that in the period 2 to 50 Covid19 is more capable of explaining the deposit rate compared to IHSG, BI Rate and PUAB. This is evident from the percentage variance decomposition Covid19 deposit interest rates until the period 50 is 28.13290%. So if we look at it as a whole, covid19 has a greater contribution to deposit interest rates compared to IHSG, BI Rate and PUAB.

## 5. Variance Decomposition Response of PUAB to IHSG Impulse, BI rate, Covid-19 and deposit rate

Based on table 5, it can be seen that from 4 variables that contribute to the PUAB interest rate, namely IHSG, BI Rate, Covid19 and deposit interest rate. Where from all variables, it is known that in the period 1 to 50 BI Rate is more capable of explaining the PUAB interest rate compared to IHSG, Covid19, BI Rate and deposit interest rate. This is evident from the percentage variance decomposition of the BI Rate to the PUAB interest rate until the period 50 is 60.30996%. So if you look at it as a whole, the BI Rate has a greater contribution to the PUAB interest rate compared to IHSG, Covid and deposit interest rates.

# DISCUSSION

The Effectiveness Of The Influence Of Monetary Policy Mechanisms Through Interest Rates On The Stock Market (IHSG) In Indonesia

Monetary policy the path of the effective interest rate against the IHSG is seen from the short-term test where the change in IHSG in the last 2 quarters was significantly

influenced by the deposit rate. According to Alfian (2011), the results of data processing through the properties of the Test Vector Auto Regression (VAR) in saying that the coefficients in the VAR modeling is difficult to analyze so that researchers will focus more on analyzing Impulse Response Function (IRF) and Structural Variance Decomposition.

This study focuses more on how the transmission of monetary policy through interest rates to the IHSG, the analysis used is Impulse Response Function (IRF) and Structural Variance Decomposition. IRF testing is done to see the effectiveness of the speed or deadline (time lag) required from a variable in responding due to shock from other variables.

Monetary policy the interest rate path is effective against stock market (IHSG) movements in the period January 2015 to March 2022, which through this path takes a 2 quarter time lag until IHSG again experiences an increase. The response of the variable indicator in the interest rate path requires 2 New periods to have a schok for the IHSG this is seen in the IRF test where the Structural Variance Decomposition table for the IHSG variable the interest rate path responds to the IHSG in the 2nd period. Where the contribution of variables in the path of interest rates to IHSG continued to increase until the 10th period.

In the interest rate path, there are macroeconomic variables, namely the BI rate, the PUAB interest rate and the deposit interest rate as well as the phenomenon that occurs, namely Covid-19. If you look at the development of the Structural Impulse Response Function (SIRF) and structural variance decomposition tests above, it takes a long time for interest rates to be able to affect the IHSG response, besides that if you look at the response that occurred during the 50 covid pandemic period, it has a negative influence on the IHSG response, which means that the higher the increase in covid-19 cases will certainly have an impact on IHSG.

As previously known that the Covid-19 pandemic is a phenomenon that occurs unexpectedly by anyone, the whole country almost the whole world feels this condition, in an instant all levels of society experience a drastically changed life where what happens is that all activities that interact with each other must be reduced or even stopped, the whole world simultaneously carries out social distancing and restrictions on all socio-economic activities.

The impact is that there is a very real change for the business sector, all economic and even financial sectors have experienced shocks, the economy has slumped and policies for efforts to overcome the spread of covid - 19 must still be carried out but the risks that must be taken by the affected economic sectors are very extraordinary.

Many economic sectors have experienced a decline due to covid 19 and even Indonesia's economic growth contracted by 2.07 percent in 2020. The Central Statistics Agency (BPS) noted that 82.85% of companies were affected by the covid-19 corona virus Based pandemic. on the sector. accommodation and food/beverage businesses were the ones that experienced the most revenue decline, which was 92.47%. Other services became the sector that experienced the second largest decline in revenue, namely 90.90%. This position is followed by the transportation and warehousing sectors. construction, processing industry, and trade.

The manufacturing industry sector, which is the sector with the largest contribution to the Indonesian economy, experienced a more severe impact. The growth of the manufacturing industry sector contracted more deeply, amounting to - 2.93 percent. Moreover. labor absorption bv the industry also decreased processing by around 13.61 percent from as many as 128.45 million people who worked in August 2020 were workers in the processing industry sector. Compared to the previous year, the population employed in the manufacturing sector decreased by 1.3 percent. The poor performance of the

processing industry sector due to the impact of COVID-19 is one of the causes of the increase in unemployment. Pandemic not only provides a decrease in economic conditions but also reduces labor conditions where the Ministry of labor explains as many as 29.12 million people affected by the pandemic, namely unemployment due to Covid-19 of 2.56 million people; not the labor force due to Covid-19 of 0.76 million people; while not working due to Covid-19 of 1.77 million; and those who worked with suffered a reduction in working hours by 24.03 million people.

In addition, the Ministry of Finance of the republic of Indonesia also explained that investment also decreased from 3.25 percent to 1.94 percent. This decline affected the economy in Indonesia. Many aspects of investment activities that feel the impact of covid19, as well as investment in the stock market where stock conditions have decreased. One that is in the capital market is securities or shares, one of which is the composite stock price index is an index that shows the movement of stock prices in general listed on the stock exchange as a reference for the development of activities in the capital market. IHSG can be used to assess the general market situation or measure whether the stock price has increased or decreased. IHSG also involves all stock prices listed on the exchange.

If you look at the IHSG response due to the covid-19 shock, both long-term and shortterm have a very strong influence. That is why it encourages the government to stop the spread of the virus, but while overcoming the phenomenon that can be said to be a crisis throughout the world, especially Indonesia, it must make holders of the habit of making policy decisions on the impacts felt, one of which is IHSG which experienced decay at that time, of course, if not overcome, it will have an impact on economic activity.

The influence caused by the pandemic is macroeconomic conditions that experience shocks, although macroeconomic influences do not affect company performance immediately but slowly and in the long term. On the other hand, stock prices will be affected immediately by changes in macroeconomic factors because investors react more quickly. When macroeconomic changes occur, investors will take into account the impact both positive and negative on the company's performance in the next few years, then make decisions to buy, sell or hold the shares concerned.

This is in line with research conducted by (Tanjung, Ruslan, Lubis, & Pratama, 2022) related to stock market reactions to COVID-19, monetary policy, and other macroeconomic variables. Covid-19 had a significant impact on the Indonesian stock market before vaccination, but after vaccination it had no significant effect on the Indonesian stock market.

If viewed from the period when handling covid through vaccines is carried out, it will reduce the number of cases infected with covid so that it will facilitate economic activities, but it also needs to involve taking policies related to economic stability.

Bank Indonesia, which is in charge of maintaining financial stability, certainly has a role in overcoming this problem, one of which is the interest rate path monetary policy mechanism. The mechanism of transmission through the path of interest rates emphasizes that monetary policy can affect aggregate demand through changes in interest rates. In this case, the effect of changes in short-term interest rates is transmitted on medium/long-term interest rates through the mechanism of balancing the demand and supply sides in the money market.

The development of interest rates will affect the cost of capital, which in turn will affect spending, investment and consumption which are components of aggregate demand. On the interest rate path, changes in BI 7DRR affect deposit interest rates and bank lending rates as reflected in the ATAR bank money market interest rate (PUAB). Bank Indonesia can use tight monetary policy through increased interest rates that have an impact on aggregate demand so as to reduce

inflationary pressures. Changes in the BI 7DRR interest rate also affect the macro economy through changes in asset prices. Rising interest rates will lower the price of assets such as stocks, thereby reducing the wealth of individuals and companies which in turn reduces their ability to carry out economic activities such as consumption and investment.

So what is done is by an effort to reduce interest rates thus will have an impact on the activity of asset prices or stock prices. If you look at the development of the IHSG response. you can see a negative relationship when compared with the monetary policy mechanism, in addition, if you look at the causality test that the deposit rate affects the IHSG, this is what happens in policy making in an effort to increase the sector sill so that the monetary policy mechanism of the interest rate path is effective on the IHSG.

The results of this study are in line with those carried out (Goeltom, 2008) whose research looks at the conditions that occurred at the time before and after the monetary crisis in 1998, explaining that the path of interest rates still functions quite well in transmitting monetary policy, although the magnitude is influenced by the condition of the banking system and higher risk factors and uncertainty as a whole. financial accelerator effect of monetary policy, especially after the crisis. A similar impulse response is obtained if we use the central bank interest rate as a policy variable, although the effect of changes in the SBI interest rate seems to be more pronounced than changes in the central bank interest rate.

PUAB interest rates have a correlation with IHSG, as explained by (Astuti & Hastuti, 2020), a decrease in interbank money market interest rates will encourage an increase in stock prices because stock yields become relatively more attractive compared to other financial assets that provide interest rate yields. This result is also in line with what is explained by Gordon's growth Model theory (Mishkin, 2020), which explains the relationship between monetary policy and stock prices where in the theory it is explained that when interest rates decline will have an impact on low returns on investment, thus triggering stock prices to increase. In addition, the theory of rational expectations also explains that the results of the stock price will be driven due to one's expectations.

#### Variable Strength Contained In The Path Of Interest Rates In Response To Stock Market Conditions (IHSG) In Indonesia

The Stock market or the composite stock price index (IHSG) will certainly respond to the shock that occurs from the path of the monetary policy mechanism on the interest rate path. In the analysis conducted, it is known that with the Covid-19 pandemic, it further encourages Bank Indonesia as the holder of the monetary authority to further take the monetary policy mechanism of the interest rate path which consists of the BI Rate, PUAB and deposit interest rates.

IHSG's response to the shock of fluctuating interest rates, this movement can be caused by Pandemic conditions that affect financial stability so that it will have an impact on people's income sources and the tendency of debtors to prioritize credit access over interest rates. as the deposit rate rises, it leads to an increase in fund raising, but banks are also required to transmit monetary policy. So that through the deposit interest rate policy during the weakening of the IHSG, what is done is the deposit interest rate is lowered so that what happens is that fund holders will consider depositing their money on the grounds of low interest returns.

This deposit rate Shock is the strength of the policy mechanism of the interest rate path responded by the IHSG, it can be seen from the increase in stock prices reflected by the IHSG which has increased so that at that time the fund holders will divert their finances to the capital market by investing in the capital market. So this further influences the development of IHSG conditions.

This is also explained by a Model developed by Rousseas (1985) called the marginal cost pricing model which states that changes in the bank's cost of funds rate will be passed on in the form of changes in the bank's interest rate to its customers, because this reflects changes in the marginal cost of the bank. In addition, rational expectation theory also explains that the results of stock prices will be driven due to one's expectations.

According Febriyanti (2020), to the Indonesian capital market is an emerging market that in its development is very vulnerable to general macroeconomic conditions as well as global economic conditions and World Capital Markets. Macroeconomic influences do not affect the company's performance immediately but slowly and over a long period of time. On the other hand, stock prices will be affected immediately by changes in macroeconomic factors because investors react more quickly. When macroeconomic changes occur, investors will factor both positive and impacts negative on a company's performance over several years into their decision to buy, sell or hold the stock.

#### CONCLUSIONS AND RECOMMENDATIONS CONCLUSIONS

Based on the results of the study it can conclude as follows:

- 1. Monetary policy transmission mechanism effective interest rate path to the stock market (IHSG) in Indonesia. The effectiveness is seen in the short and long term large changes in the IHSG response are influenced by the shock of the interest rate path. However, it should be noted that in the long term Covid-19 conditions have a great influence on IHSG, followed by deposit interest rates.
- 2. Monetary policy transmission mechanism strong interest rate path in response to the stock market (IHSG), the strong interest rate path is in the shock of the deposit rate that has an influence on the IHSG, it is because of changes in

the condition of the next deposit rate at the time of change will encourage changes in the IHSG it is due to future expectations that automatically occur due to the shock of the deposit rate.

# RECOMMENDATIONS

Suggestions researchers from research that has been done are as follows:

# 1. Theoretical

- a. The results of this study suggest that it knowledge and provide add can information to the development of economics. especially monetary economics, regarding the relationship between the effectiveness of interest rate policy on the stock market (IHSG)top support variables, management the quality of Accounting Information Systems, and the quality of accounting information.
- b. Subsequent research that makes this study as a reference material can examine the limitations of this study so that the discussion can be more complex not only looking at several aspects but also looking at the transmission of monetary policy the path of interest rates affects various aspects of the economy.

# 2. Practical

- a. For the next researcher should add other components contained in the interest rate path so that the pattern of monetary policy mechanism of the interest rate path can explain more fully besides that it is better to compare with other paths.
- b. For stakeholders, this research can be used in capital market analysis aimed at decision-making considerations, especially related to decisions to buy or sell stocks that are adjusted to economic conditions that are experiencing turmoil due to something that triggers a crisis by considering the interest rate set. this is because the interest rate path is effective against the IHSG, but the long-term covid-19 shock has a great influence on the IHSG response.

**Declaration by Authors Acknowledgement:** None

Source of Funding: None

**Conflict of Interest:** The authors declare no conflict of interest.

# REFERENCE

- Aguilar, P., Arce, Ó., Hurtado, S., Martín, J. M., Nuño, G., & Thomas, C. (2021). The ECB Monetary Policy Response To The Covid-19 Crisis. Documentos Ocasionales No 2026, 1-28.
- Alfarina, N., & Aimon, H. (2020). Intervensi Kebijakan Moneter Terhadap Investasi Portofolio: Kasus Indonesia dan Amerika Serikat. Jurnal Kajian Ekonomi dan Pembangunan 2(1), 1-13.
- Alzyadat, J. A., & Asfoura, E. (2021). The Effect of COVID-19 Pandemi on Stock Market: An Empirical Study in Saudi Arabia. Journal of Asian Finance, Economics and Business 8(5), 913–921.
- Asiedu, M., Oppong, E. O., & Gulnabat, O. (2020). Effects of Monetary Policy on Stock Market Performance in Africa Evidence from Ten (10) African Countries from 1980 to 2019. Journal of Financial Risk Managemen 9, 252-267.
- Astuti, R. D., & Hastuti, S. R. (2020). Transmisi Kebijakan Moneter Di Indonesia. Jurnal Ekonomi-QU 10(1), 1-22.
- Ehrmann, M., & Fratzscher, M. (2004). Taking Stock: Monetary Policy Transmission To Equity Markets. Working Paper Series European Central Bank NO. 354, 1-48.
- Febriyanti, G. A. (2020). Dampak pandemi Covid-19 terhadap harga sahamdan aktivitas volume perdagangan (Studi kasussaham LQ-45 di Bursa Efek Indonesia). Indonesia Accounting Journal 2(2), 204-214.
- Firdaus, R., & Ariyanti, M. (2011). Pengantar Teori Moneter. Bandung: Alfabeta. Ghozali, I. (2011). Aplikasi Analisis Multivariate Dengan Program SPSS. Semarang: Badan Penerbit Universitas Diponegoro.
- Goeltom, M. S. (2008). The transmissi on mechanisms of monetary policy in Indonesia. BIS PaperNo 35, 309-332.Gujarati, D. N. (2006). Ekonometrika Dasar. Jakarta: Erlangga.
- 10. Gürkaynak, R. S., Karasoy-Can, H. G., & Lee, S. S. (2021). Stock Market's Assessment of Monetary Policy

Transmission: The Cash Flow Effect. Department of Economics, Bilkent University, 06800, 1-46.

- Hamzah, R., & Handri. (2017). 2017. Analisis Interest Rate Pass-Through Pada Mekanisme Transmisi Kebijakan Moneter di Indonesia. Jurnal of Economics and Business 1(1).
- Hasminidiarty. (2016). Kebijakan Moneter Dan Pengaruhnya Terhadap Pasar Modal Indonesia. Jurnal Ilmiah Universitas Batanghari 16(3), 57-70.
- Hatmanu, M., & Cautisanu, C. (2021). The Impact of COVID-19 Pandemi on Stock Market: Evidence from Romania. Internasional Journal Of Environ. Res. Public Health 18(9315), 1-22.
- Huh, I., & Lee, Y. (2021). Monetary Policy Transmission Mechanism of Bangladesh. Asian Development Bank , 1-30.
- 15. Karim, Z. A., & Karim, B. A. (2014). Interest Rates Targeting of Monetary Policy: An Open Economy SVAR Study of Malaysia. Gadjah Mada International Journal of Business 16(1), 1-22.
- Kasmir. (2014). Bank dan Lembaga Keuangan Lainnya. Jakarta: Raja Grafindo Persada.
- 17. Kemu, S. Z., & Ika, S. (2016). Transmisi BI Rate sebagai Instrumen untuk Mencapai Sasaran Kebijakan Moneter. Kajian Ekonomi Keuangan 20(3), 261-284.
- Le, H. V., & Pfau, W. D. (2009). Var Analysis Of The Monetary Transmission Mechanism In Vietnam. Applied Econometrics and International Development 9(1), 165-179.
- Liu, F., Kong, D., Xiao, Z., Zhang, X., Zhou, A., & Qi, J. (2020). Effect of economic policies on the stock and bond market under the impact of COVID-19. Journal of Safety Science and Resilience 3, 24-38.
- Lucky, A., & Kingsley, U. C. (2007). Monetary Policy Transmission Mechanism and Domestik Real Investment in Nigeria : A Time Study 1981-2015. International Journal of Economics and financial Management 2(2).
- 21. Maurer, T. D., & Nitschka, T. (2020). Stock market evidence on the international transmission channels of US monetary policy surprises. SNB Working Papers 10, 1-41.

- 22. Mishkin. (2020). Ekonomi Uang, Perbankan, dan Pasar Keuangan. Jakarta: Salemba Empat.
- 23. Mohanty, D. (2012). Evidence of Interest Rate Channel of Monetary Policy Transmission In India. RBI Working Paper Series 6, 1-52.
- 24. Natsir. (2012). Ekonomi Moneter Teori dan Kebijakan. Semarang : Polines Semarang.
- 25. Ndubuisi, G. O. (2015). Interest Rate Channel Of Monetary Policy Transmission Mechanisms: What do we know about it? Electronic Journal , 1-15.
- 26. Nopirin. (2000). Ekonomi Moneter. Buku II. Edisi kesatu. Cetakan Kesepuluh. Yogyakarta: BPFE UGM.
- 27. Nurlina, & Zurjani. (2018). Dampak Kebijakan Fiskal dan Monter dalam Perekonomian Indonesia. JURNAL SAMUDRA EKONOMIKA 2(2), 126-136.
- Pohan, A. (2008). Potret Kebijakan Moneter Indonesia. Jakarta: Penerbit Grafindo Persada.
- Prathama, R., & Manurung, M. (2008). Teori Ekonomi Makro. Jakarta: LPFEUI. Redo, M. (2018). The Stock Market Channel In The Monetary Policy Transmission Process. Athenaeum Polish Political Science Studies 59, 224-135.
- Sethi, M., Baby, S., & Dar, V. (2019). Monetary Policy Transmission during Multiple Indicator Regime: A Case of India. Journal of Asian Finance, Economics and Business 6(3), 103-113.
- 31. Sukirno, S. (2013). Pengantar Teori Makro Ekonomi. Jakarta: Raja Grafindo Persada.
- 32. Tanjung, A. A., & Muliyani, S. E. (2021). *METODOLOGI PENELITIAN: SEDERHANA, RINGKAS, PADAT DAN MUDAH DIPAHAMI*. SCOPINDO MEDIA PUSTAKA.
- 33. Tanjung, A. A. (2021, January). Bank Lending Channel of Monetary Policy Transmission: New Evidence From Indonesia. In ICONS 2020: Proceedings of the 1st International Conference on Social Science, Humanities, Education and Society Development, ICONS 2020, 30 November, Tegal, Indonesia (p. 69). European Alliance for Innovation.
- 34. Tanjung, A. A., Ruslan, D., ubis, I. L., & Pratama, I. (2022). Stock Market Responses to Covid-19 Pandemi and Monetary Policy

in Indonesia: Pre and Post Vaccine. Cuadernos de economía 45(127), 120-129.

- 35. Tanjung, A. A., & Sukardi, S. (2022). Monetary Policy and Innovation During Recession in Indonesia. Jurnal Ekonomi Pembangunan, 20(01), 21-33.
- 36. Tanjung, A. A., Lubis, K. S., Prana, R. R., & Muliyani, M. (2022). Pemulihan Ekonomi melalui Pengembangan UMKM di Masa New Normal Covid-19: Pendekatan ANP-BCOR. Ekonomi, Keuangan, Investasi Dan Syariah (EKUITAS), 3(4), 724-728.
- Teapon, R. R., & Mustafa, R. D. (2018). Kejutan Transmisi Kebijakan Moneter Dan Variabel Makro Ekonomi Di Indonesia: Suatu Pendekatan Structural Vector Autoregression. Jurnal Economia 14(2), 177-196.
- 38. Wahyudi, S. T., & Nabella, R. S. (2020). Interest rate pass-through sektor perbankan di indonesia: pendekatan error correction model (ecm). INOVASI 16(2), 347-354.
- 39. Wang, Z., Zhang, Z., Zhang, Q., Gao, J., & Lin, W. (2021). COVID-19 and financial market response in China: Micro evidence and possible mechanisms. journals Plos One 16(9), 1-23.
- 40. Warjiyo, P. (2004). Mekanisme Transmisi Kebijakan Moneter Di Indonesia. Jakarta: Pusat Pendidikan Dan Studi Kebanksentralan (Ppsk) Bank Indonesia.
- Wibowo, B., & Lazuardi, E. (2016). Uji Empiris Mekanisme Transmisi Kebijakan Moneter: Interest Rate Pass-through Sektor Perbankan Indonesia. Jurnal Ekonomi dan Pembangunan Indonesia 16(2), 187–204.
- 42. Zuffar, F. P., & Rahadian, D. (2020). Analisis Dampak Mekanisme Kebijakan Transmisi Moneter Terhadap Tingkat Suku Bunga Dasar Kredit Pada Bank Pemerintah Dan Bank Swasta Di Indonesia Periode Januari 2014 – September 2019. Jurnal Mitra Manajemen 4(9), 1308-1321.

How to cite this article: Rifqah Pratiwi Siregar, Ahmad Albar Tanjung, M. Syafii. Analysis of monetary policy mechanism through interest rate path to stock market (IHSG) in Indonesia. *International Journal of Research and Review*. 2023; 10(1): 284-303.

DOI: https://doi.org/10.52403/ijrr.20230132

\*\*\*\*\*