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# **Research Paper**

# Money Demand in Indonesia: Determinant Studies That Effect

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ABSTRACT: The outbreak of the 1998 crisis wave dragged the economy into a state of collapse, by Therefore, this study tries to determine the determinants of the money demand. This study uses a broad interpretation of money (M2), using national income, inflation, domestic deposit interest rates and the crisis monetary as the explanatory variables and analyzed with semi log model approach. The data used in this study are time series from the period 1990: Q1 to 2021 period: Q4. This study is expected to provide an overview for policy makers to maintain the balance of the monetary sector. This research will provide a projection of the variables that influence the demand for money. This study is very interesting because it uses monetary instruments in its analysis, considering monetary problems is a fundamental problem which, if neglected, will disrupt the economy and a regime. This study has limitations because it uses limited time series data due to data availability, so the dynamics of observation choice be limited. This research is a reference for authorities in stimulating and implementing policies to maintain the stability of the Indonesian economy to withstand shocks. This study is the first to use the 2021 time series to estimate pattern of money demand and using a dummy variable as the independent variable.

**KEYWORDS:** Macroeconomics, Money Demand, Monetary Crisis

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#### I. INTRODUCTION

In the economic circle model, money is a link that connects all parts and sectors. The existence of money allows people to specialize in one particular field of activity, then exchange the results for other goods or services needed. Money and credit play a very important role in the modern economy, and they can be very helpful, but they can also destabilize the world economy. The circulation of the amount of money is one part of the monetary sector that supports the national economy in Indonesia so that the circulation of money causes a balanced economy [1].

The policy that regulates the circulation of money is called monetary policy [2]. As an integral part of macroeconomic policy, monetary policy in Indonesia has an important role in economic development. Thus, together with other macro policies such as fiscal policy and balance of payments, monetary policy is directed to achieve the targets of economic growth and equitable development including income and expansion of employment opportunities, as well as price stability and balance of payments balance.

Therefore, monetary policy in Indonesia has a broad scope, which is not only directed at influencing aggregate demand but also aggregate supply in the economy. Therefore, monetary policy is aimed at supporting the achievement of macroeconomic targets. Bank Indonesia as the monetary authority, not only has the task of regulating the money supply in accordance with the real needs of the economy, but also influencing its allocation in such a way that it can encourage production and investment activities, especially in sectors that have a large double impact, use a lot of manpower, and encourage the efforts of the economically weak groups [3].

Demand for bank notes and checks is determined by the community's need to maintain liquidity [4]. One of the basic characteristics of the demand for money is that people are attracted to the purchasing power of their money holdings, namely the value of cash balances in the form of goods that can be purchased with cash, so that money here has the position as a means of payment or a means of exchange [5].

The economic crisis in Indonesia is considered the most severe when compared to similar crises that have occurred in several countries so far. The outbreak of the crisis wave in 1997 not only devastated the national banking industry but also dragged the economy into a very slow economic growth. Not a few banks that were financially sick fell in the storm of the crisis, the monetary crisis at least had a direct impact on the demand for money [6]. In addition, one of the causes of the economic crisis that occurred in Indonesia was the rapid process of integration of the Indonesian economy into the global economy as well as the weakness of microeconomics as reflected in the vulnerability of the national financial sector, especially banking. One of these financial crises was exchange rate fluctuations which had caused serious economic difficulties. In the first quarter of 1998, economic activity contracted by 12 percent per year as a result of many companies reducing activity or even stopping production. Inflation rate also soared, namely 69.1 percent in the period January-August 1998 ago. The high rate of inflation causes a decrease in people's purchasing power therefore it is necessary to do a wise policy in the monetary targeting frame as an injection in the economy.

Monetary Targeting or more specifically the money supply including its control is pure monetary policy, meaning that monetary policy is not accompanied by changes in the value of government spending, taxes or transfer payments. In the case of price control (inflation) the monetary authority can take steps in the monetary sector that can reduce the money supply. Policies that can be taken are by reducing the amount of base money, increasing the minimum reserve requirement and increasing the money interest rate. It is hoped that the reduction in base money will reduce the inflation rate, so that the monetary target will be relatively under control. Controlling the demand for money in relation to inflation is carried out by keeping the demand for money and output at a level that does not encourage inflation (Non-Inflationary Level).

The concept of money demand has always been a concern in monetary theory. The quantity theory of money is one of the most important theories for the theory of money demand. A long debate took place between economists to determine the right concept of money demand. This is important because different concepts of money demand mean different macroeconomic mechanisms so that the policies applied are also different. Friedman argues that monetary policy can contribute to achieving economic stability by controlling monetary quantities [7]. This interprets that money demand plays an important role in the behavior of monetary policy in every economy, so that empirical studies and development of models regarding money demand be urgently conducted.

Observing and observing the magnitude of Indonesia's macroeconomic indicators as instruments and main targets of economic development as set out in table 1.

M2 Interest Rate Year Growth Inflation (%) (Million Rp.) (%) (%)2014 5,01 4.173.327 8.36 8.94 7.99 2015 4.88 4.548.800 3.35 2016 5,03 5.004.977 3.02 6.69 2017 5,07 5.419.165 3.61 6.10 2018 5.17 5.760.046 3.13 6.84 2019 2.78 6.30 5.02 6.136.352 2020 2.07 6.905.939 1.68 4.38 2021 7.870.453 1.87 3.29 3.69

TABLE 1. Indonesian Macroeconomic Indicators 2014-2021

Source: Bank Indonesia, 2022

In table 1 it can be explained that the last six economic developments in Indonesia have fluctuated with an average of 5.03 percent with the highest growth achieved in 2018 reaching 5.17 percent, this growth was achieved due to the support domestic market forces and helped also with a fairly high public consumption, while the lowest growth rate occurred in 2015 which was 4.88 percent, this was due to the effects of the global financial crisis that occurred in America and then spread to Europe, Asia and almost all countries affected by the crisis. This is no exception for Indonesia, it affects the implication of stagnant real growth rate in that figure even though the macroeconomic growth assumption designed by the government in the same year is 5.00 percent, so the conclusion is that there is a discretionary growth rate of 0.12 percent [8]. Viewed from the demand side for money in a broad sense (M2 real value highest occurred in 2019 of Rp. 6,136,352 billion or an increase of 6.53 percent compared to the previous year. The highest inflation rate in the last 6 years was 8.36 percent, in 2014 this figure was far above the government's target in the 2014 Revised State Budget which was set at 5.3 percent, this was due to an increase in subsidized fuel oil (BBM) with a premium of Rp. Rp 6,500/liter and diesel Rp 5,500/liter. BBM contributed to inflation of 1.17 percent, therefore the linear policy was carried out by Bank Indonesia by accelerating the deposit interest rate by 1.33 percent or from 7.61 percent to the level

of 8.94 percent, this also caused the deposit interest rate in 2014 to increase highest compared to the previous year in the last six years.

By looking at the economic condition of developing countries such as Indonesia, which is so vulnerable to disequilibrium a study for forecasting it is important to do for example [9], who conducted research on the demand for money in Korea, found that in the long-term balance of people's real income and the interest rate remained influential on the demand for money in a broad sense (M2) while for money demand in a narrow sense (M1) these variables are not very influential. An important conclusion from this study is that. highly correlated with income and interest rates and this correlation becomes a reference in the stability of money demand [10]. Similar research has also been conducted by [11] found the results that the inflation variable in the short term and long term has a positive and significant effect on money demand in Indonesia, the interest rate variable in the short term has a negative and insignificant effect and the long term has a negative and significant effect on the demand for money in Indonesia while the GDP variable in the short term does not have a significant effect and in the long term it has a positive and significant effect on the demand for money in Indonesia. Research on the monetary sector has also been carried out by [12] on the factors that affect the demand for money in 1990 – 2018, which found the fact that national income, the US dollar exchange rate had a positive and significant effect on the demand for money.

Thus, the monetary phenomenon of money demand is interesting to study. The classification of macroeconomic quantities affecting the demand for money through various theoretical studies, empirical studies, and data phenomena that have been carried out previously shows the importance of developing a research model for money demand in Indonesia. In line with the background of the problem, this research problem is formulated as follows: (1) Do national income, inflation, deposit interest rates and the monetary crisis simultaneously affect the demand for money (M2) in Indonesia in 1990 Q:1 -2021 Q:4? and (2) How are the effects of national income, inflation, deposit interest rates and the monetary crisis partially on the demand for money (M2) in Indonesia in 1990 Q: 1 - 2021 Q: 4?

# II. LITERATURE REVIEW

#### 2.1 MONEY DEMAND

The money demand theory begins with the emergence of the money demand theory from Irving Fisher (which is called the classical money demand theory). Irving Fisher's theory emphasizes the function of money as a medium of exchange. In Irving Fisher's theory, it is considered that all transactions or financial events in society are always in a balanced situation, what is meant by balanced is the amount of money paid by the buyer must be equal to the amount received by the seller [13]. Cambridge theory, like Fisher's theory and other classical theories, is based on the function of money as a medium of exchange (means of exchange). However, Cambridge's theory differs from Fisher's theory on the issue of money held by individuals in society. Fisher concluded that the money held by individuals in society is a constant proportion of the volume of transactions which is influenced by institutional factors that are fixed (permanent) in society and are not based on profit and loss considerations. Money held by society (according to Cambridge) is influenced by the behavior of individuals in society with various considerations [14]. Keynes's theory is limited to the circumstances in which the owner of wealth can choose to hold wealth in the form of cash or bonds. Cash is considered not to provide income, while bonds are considered to provide income in the form of a certain amount of money each period. In Keynes's theory, special bonds are discussed which provide an income in the form of a certain amount of money for an indefinite period of time. Modern Quantity Theory The pioneer of renewal of (classical) quantity theory after Keynes was Milton Friedman of the University of Chicago. In a very famous paper The Quantity Theory of Money-A Restatement, Friedman defines quantity theory as a theory of money demand [15]. Friedman argues that the theory of demand for money is an application of the theory of demand in general. This is because the basic principle of the theory of demand for money is the same as the theory of demand for goods, namely the behavior of the act of choosing from individuals or owners of wealth.

#### 2.2 MONETARY CRISIS

There are several factors that caused the monetary crisis in Indonesia in mid-1997 as follows [16] and [17], namely: (1) Inflation and Interest Rates, Inflation is an increase in general prices of goods in general continuously. Inflation that occurs in Indonesia includes moderate inflation, namely this inflation is marked by a fairly large increase in general prices, usually double digits or even triple digits. The causes of inflation in Indonesia include cost push inflation, namely inflation caused by price increases and decreased production due to a decrease in total supply as a result of rising prices for industrial raw materials, because some of the raw materials used by Indonesian entrepreneurs come from abroad, so that the price of the raw material itself becomes very expensive due to the soaring exchange rate of the rupiah against the US dollar. The government raises interest rates with the aim of suppressing the rate of inflation where inflation is marked by an increase in

general prices because the number of basic necessities of society is very scarce, while the amount of money circulating in the community is large, the value of money will decrease. For this reason, with the increase in interest rates, the money supply decreases because people are more inclined to save their money in banks because of the benefits that can be obtained from the higher interest rates; (2) Weak human resources, one of the main factors of the crisis that occurred in Indonesia is due to the weakness of Indonesia's human resources, this can be seen from the many problems that occur in the banking sector. In addition, the prevalence of corruption, collusion, and nepotism also reflects the low quality of Indonesia's human resources. As a result, people distrust the government, resulting in riots that cause the stability of the Indonesian state to decline; (3) Unstable state stability, the riots that occurred in May 1998 had a very broad impact on the Indonesian economy. The first consequence is the flight of investors, making it difficult for Indonesia to rise up by relying on increased investment. The second result is the flight of hereditary citizens who in the Indonesian economy are known as the best liaison between producers and consumers, thus adding to the chaos of the Indonesian economy. In relation to the issue of the monetary crisis, one of the decisions made in the cabinet meeting on October 8, 1998 was to request the intervention of the International Monetary Fund and the World Bank to help overcome the prolonged monetary crisis. The provision of assistance to these two world economic institutions requires several policies that lead to the restructuring process in the context of economic reform [18].

#### III. METHOD

The data used in this study are time series from the period 1990: Q1 to the period 2021: Q4. The argument for using 1990: Q1as the base year of the study is on the availability of data, the minimum number of data requirements in testing time series data, while 2021: Q4is the last year with available quarterly data. The data used are sourced from publications from Bank Indonesia and the Central Statistics Agency.

There are 3 (three) basic rumors about the study of money demand in both developed and developing countries. The first is about the interpretation of money, the second is about the variables that narrate and the third is about the stability of the demand for money (Sanjaya et al., 2021). This study uses the interpretation of money in a broad sense (M2), using national income, inflation, domestic deposit interest rates, and the crisis variables the explanatory. In this study, the money demand function in Indonesia is formulated through the following equation:

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LM2 = f (GNP, Inf, SBD, KM) \rightarrow (1)
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Where M2 is the demand for money in the broadest sense, GNP is national income, Inf is inflation, SBD is the deposit rate, and KM is a dummy variable, namely the monetary crisis in Indonesia.

This study will look at the application of the Econometric Ordinary Least Square (OLS) model or the least squares on the demand for money in Indonesia with the influence of each explanatory variable using the Eviews 10 software computer application. Before testing the regression model, first test the stationarity of the data time series with the stationarity test, cointegration, and then the classical assumption test which includes multicollinearity, heteroscedasticity, and autocorrelation tests so that the model used meets the Best Linear Unbiased Estimator (BLUE) rule [19].

The data analysis technique used is Ordinary Least Square with a semi-log model used to determine the effect of the independent variable on the dependent variable, the form is as follows.

```
LYi = \beta 0 + \beta 1 X1i + \beta 2X2i + \beta 3X3i + \beta 4XDi ei
                                              \rightarrow (2)
                   = Money Demand (M2) year 1990: Q1 - 2021: Q4
LYi
X1i
                   = Gross National Product
X2i
                   = Inflation
X3i
                   = Deposit Interest rate
XDi
                   = D = 0; The period before monetary crisis
                   = D = 1; The periode after monetary crisis
\beta1, \beta2, \beta3, \beta4,
                   = Regression Coefficient
βο
                   = Intercept
                   = Estimated confounding error
ei
                   = Observation to –i
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#### IV. RESULT AND DISCUSSION

#### 4.1 VALIDITY TEST TIME SERIES

Data used need to be tested for validity which includes stationarity test and cointegration test.

#### Stationarity Test

A stationarity test is carried out to determine the nature of the data used in the study, where it is expected that the data has a variance that is not too large and has a tendency to approach its mean [20].

TABLE 2. Stationary Test Results with Unit Root Test

Variable	ADF Value	Critical Value McKinnon			Information
		1%	5%	10%	_
LMoney Demand	-10.719	-3.486	-2.886	-2.579	Stationer on the order (1)
GNP	-10.785	-3.486	-2.886	-2.579	Stationer on the order (1)
Inflation	-11.346	-3.486	-2.886	-2.579	Stationer on the order (1)
Deposit Interest Rate	-8.615	-3.486	-2.886	-2.579	Stationer on the order (1)
Monetary crisis	-10.886	-3.486	-2.886	-2.579	Stationer on the order (1)

Source: Result Analysis

Test stationarity of the data can be shown in table 2, which can be concluded that all the data are stationary. This can be seen in the Augmented Dickey Fuller (ADF) value which is smaller than the McKinnon critical value at a significance level of 5 percent.

#### **Test Cointegration**

The test is very important to do when developing econometric models. Thus, the interpretation of the model will not be misleading. The results of the cointegration test can be explained in table 3 which shows that the money demand variable is integrated with all the independent variables studied. This can be seen from the Likelihood ratio values which are greater than the critical value at the 5 percent significance level.

TABLE 3. Cointegration Test Results with Johansen's Test Between Money Demand Variables (LMD) and each Independent Variable

Independent Variable	Eigenvalue	Likelihood	Critical Value	Information
		Ratio*	5%	
GNP	0.045	18.333	15.494	Interval lag 1 until 4
Inflation	0.137	20.800	15.494	Interval lag 1 until 4
Deposiit interest rate	0.106	16.044	15.494	Interval lag 1 until 4
Monetary Crisis	0.038	18.383	15.494	Interval lag 1 until 4

Source: Result Analysis

Note: \* Likelihood Ratio = Trace Statistics

#### 4.2 CLASSICAL ASSUMPTION

#### **Test Multicollinearity**

The multicollinearity test in this study was carried out using the Klein test model, which is to compare lower cases (correlation between each independent variable) if R2 y Xi, Xj .... Xn > r2 Xi, Xj .... Xn then it can be concluded that the model does not multicollinearity problems occur [21]. Based on the test output, it can be explained that the value of the coefficient of multiple linear determination (R2 = 0.925) is greater than the coefficient of determination of all auxiliary regressions for national income, inflation, inflation, deposit rates and monetary crisis with R2 value of each independent variable of 0.497, 0.303, 0.261, and 0.191 for the monetary crisis, it is concluded in the model that there is no multicollinearity problem.

# **Heteroscedasticity Test Heteroscedasticity**

A test was conducted to test whether there is an inequality variance from one observation to another. In this study, heteroscedasticity testing was carried out using the Breusch Godfrey test, namely by regressing the absolute value of the residual on the independent variable. If none of the independent variables has a significant effect on the dependent variable (absolute residual value), then there is no heteroscedasticity. In Table 4, the results of the heteroscedasticity test using the Glejser.

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TABLE 4. Results of Heteroscedasticity Test (Breusch Godfrey Test)

Independent Variable	Significance		
GNP	0.588		
Inflation	0.071		
Deposit Interest Rate	0.714		
Monetary Crisis	0.410		

Source: Result Alaysis

Based on Table 4 it can be seen that there is no single independent variable that has a significant effect on the dependent variable (absolute residual), then there is no heteroscedasticity, in other words, the significance value of each dependent variable is greater than the 5 percent level of significance, this indicates that the research model does not contain heteroscedasticity problems.

#### **Autocorrelation Test**

The model used to determine whether there is an autocorrelation problem in this study is to use the Lagrange multiplier test, which compares (Obs\*) R Square must be greater than significance, so it can be said that in the model there is no autocorrelation problem (Utama, 2017). In the research model, the Obs\* R Square value is 72,580 which is greater than the 5 percent significance level, meaning that the model used in this study does not contain autocorrelation.

#### 4.3 MONEY DEMAND ESTIMATION RESULTS

The analytical model used in this study is multiple linear regression using the software program Eviews 10. The multiple linear regression analysis models aim to determine the effect of income, inflation, deposit interest rates, and the monetary crisis on money demand in Indonesia in 2013. 1990: Q1 - 2021: Q4 either simultaneously or partially. The summary of the results of data analysis using the Eviews 10 program can be seen in Table 5.

TABLE 5. Estimation Results of the Money Demand Model

Independent Variable	Regression	of	t-Statistic	Probability
	Coefficient			
GNP	1.710		12.127	0.000
Inflation	0.014		1.747	0.025
Deposit Interest Rate	-0.026		-5.522	0.000
Monetary Crisis	1.810		21.876	0.000
Constant	12.178			
R Square	0.925			
F-Statistic	357.293			
Probabilitas	0.000			
Log Likelihood	-42.722			
Schward Criterion	0.911			

Source: Result Analysis

Based on Table 5 obtained the regression equation

LYi = 
$$12.178 + 1.170 \text{ X1i} + 0.014 \text{ X2i} - 0.026 \text{ X3i} + 1.810 \text{ X4i} + 12,178 \text{Di ei } \rightarrow (3)$$

Through table 5 it can also be explained that simultaneously the variables of national income, inflation, deposit rates, and the monetary crisis had a significant effect on the demand for money in Indonesia from 1990 Q:1 – 2021 Q:4, this is indicated by a significant value or probability value that is smaller than the 5 percent significance level, as well as when comparing the calculated F value (357,293) > F table (2.45) which indicates that there is an effective positive and significant between the independent variables raised in this study on the demand for money in Indonesia with a confidence level of 95 percent. Partially, the variables of national income and inflation have a positive and significant effect on the demand for money (M2) in Indonesia with a significance value that is smaller than the real level of 5 percent, while the variable deposit interest rate does not affect the demand for money. variable dummy whose significance value is 0.000 is smaller than the 5 percent level of significance, this indicates that there is a difference in the demand for money (M2) in Indonesia, which

in the period after the monetary crisis the demand for money (M2) was greater than before the crisis. monetary which the increase is e 1,810 = 6,109 times more than the period before the monetary crisis. (euler = natural log number 2.718) [22].

# Effect of Simultaneous National Income, Inflation, Deposit Interest Rates, and Monetary Crisis on Money Demand in Indonesia Q:1-2021 Q:4

Software Eviews which are summarized in table 5 can be simultaneously concluded that the variable of national income, inflation, deposit interest rates, and the monetary crisis has a significant on money demand in Indonesia which can be explained by the calculated F value (357,293) > F table (2.45) and the sig value 0.0000 < 0.05 level of significance with the level of confidence 95 percent. This result is supported by the coefficient of determination (R2) of 0.925, which means that 92.50 percent of the variation in money demand in Indonesia is explained by national income, inflation, deposit interest rates, and the monetary crisis, while the remaining 7.50 percent is explained by factors others that are not included in the estimation of the research model.

# Effect of National Income on Demand for Money in Indonesia 1990 Q:1 - 2021 Q:4

The value of the national income coefficient is 1.710. The value of the coefficient that is positive means that if there is an increase in income it will cause an increase in the demand for money, in other words, if the national income increases by 1 billion Rupiah ceteris paribus, it will cause an increase in the demand for money by 1.710 percent and when viewed from the dimensions of elasticity then the national income variable is elastic because an increase in the demand for money that exceeds one unit will cause national income to increase, this increase will be quickly responded to by an increase in the demand for money. This is following the theory promulgated by the classics and Keynes that the demand for money is positively influenced by income [15]. The increasing income of the community causes the community's needs to be high so that the demand for money is also increasing to meet their needs as well as being used for speculating. The findings of this study support research that has been conducted by [23] and ([24].

# Inflation Positive and Significant Effect on Money Demand in Indonesia in 1990 Q:1 - 2021 Q:4

The inflation coefficient value of 0.014 indicates that if there is an increase in inflation of 1 percent it will result in an increase in money demand in Indonesia by 0.014 percent assuming other variables used in this study are assumed to be unchanged. When tested partially by comparing the value of t count with the t table, the value of t count (1.747) > t table is (1.658). The results obtained in the study are under the theory which suggests that there is a positive and significant effect between inflation and the demand for money. Inflation which reflects the expectation of an increase in the relative prices of goods and services in the future will lead to an increase in the pattern of money demand. With the increase in prices, people will try to increase the pattern of demand for money. An increase in prices will encourage earlier consumption before prices rise, which means there is an increase in demand for money as a result of rising prices in society. The findings of this study are in line with studies conducted by [25] and [26] which stated that in general the inflation rate greatly affects the demand for money.

# The Deposit Interest Rate does not affect the Demand for Money in Indonesia 1990 Q:1 - 2021 Q:4

The coefficient value of the Deposit Interest Rate is minus 0.026 which interprets that if there is an increase in the deposit interest rate by 1 percent it will result in a decrease in the demand for money in Indonesia by 0.026 percent with the assumption that other variables used in this study are assumed to be constant. When tested partially by comparing the value of t arithmetic with the t table, the obtained value of t arithmetic ( -5.522) < t table of (-1.658) which states that the deposit interest rate does not affect the 5 percent level of money demand during the analysis period. This is because every day, Indonesian people always need money, whether used for transactions or in emergencies, so they don't think too much about the current interest rates in banks, especially government banks. In addition, the Indonesian people who belong to the lower middle class whose consumption level exceeds their income, automatically there is no saving activity, so no matter how high the deposit interest rate, the public will not be interested in depositing their money. In this case, only a small part of the community has a high-income level, where the income level is greater than consumption which will increase their savings when the deposit interest rate increases. Monetary policy through changes in deposit interest rates is not immediately responded to by changes in the percentage of money demand, the effect is of little value in explaining variations in changes in money demand patterns. This situation concludes that the deposit interest rate is less effective in influencing the pattern of money demand of the Indonesian people, who incidentally are mostly lower-middle incomes, which of course will prioritize the use of their money for more important things such as fulfilling their daily needs rather than depositing their money in the bank. [18], [3].

#### The Effect of the Monetary Crisis on Money Demand in Indonesia in 1990 Q:1 – 2021 Q:4

The estimated value of the natural log (e = 2.718) which means e = 1.810 = 6.109, which means that the demand for money (M2) in Indonesia after the monetary crisis is higher than 6.109 times greater than in the period before the monetary crisis with the assumption that the other independent variables are constant, the statistical test shows that partially the monetary crisis has a positive and significant effect on the demand for money (M2) at a significant level of 5 percent. The results obtained in this study regarding the effect of the monetary crisis on money demand (M2) in Indonesia are following the theory stating that the relationship that occurs is positive

During the crisis, there was a fairly rapid increase in the amount of money, the increase in people's desire to hold cash was due to the loss of public confidence in the existing banking system with the occurrence of a rush (simultaneous taking of money by the public) in various banks throughout Indonesia, while the increase in M2 occurred due to the increase in quasi money consisting of rupiah deposits and foreign exchange deposits[27]. One of the causes of the economic crisis that occurred in Indonesia was the rapid process of integration of the Indonesian economy into the global economy. Another factor that also played a role in creating the crisis was the weakness of the micro-economic fundamentals, which was reflected in the vulnerability of the national financial sector, particularly the banking sector.

#### V. CONCLUSSION AND RECOMMENDATION

Based on the results of the analysis, it was found that national income, inflation, deposit interest rates and the monetary crisis simultaneously had a significant effect on the demand for money (M2) in Indonesia during the analysis period. Partially, national income and inflation have a positive and significant effect on the demand for money (M2), while the deposit interest rate partially has no effect on the demand for money (M2) in Indonesia in 1990 Q: 1-2021 Q: 4. Demand for money (M2) in Indonesia after the monetary crisis is greater than the period or year before the monetary crisis, and the coefficient of determination is 0.925 which indicates that 92.50 percent of the variation in money demand (M2) in Indonesia can be explained or influenced by variations in the amount of national income, inflation, deposit interest rates, and the monetary crisis while the remaining 7.50 percent is explained or influenced by other variables that are not included in the research model with a confidence level of 95 percent.

For policy makers (government and monetary authorities), in setting policies to create a stable economy, it is necessary to take steps to keep the amount of cash in circulation in the community from being too excessive. Things that can be done to overcome high inflation is to reduce the money supply by increasing interest rates on savings and time deposits, besides that the government must also maintain the stability of the exchange rate so that people do not do excessive speculation and maintain security and economic stability and politics, so that people have confidence and comfort in the pattern of holding money. This section explains conclusion and policy recommendation.

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