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ANALYSIS OF RUPIAH STABILITY DURING THE COVID-19 PANDEMIC

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***Abstract**: The purpose of this study was to see the differences before and during the pandemic on the variables of Exchange Rate, Inflation, Interest Rates and the Money Supply. The method used is the Differential Test method. The results of this study show that there are no significant differences between the Exchange Rate, Inflation and Interest Rate variables before and during the Covid-19 pandemic in Indonesia. Then in the Variable Amount of Money Supply there are significant differences before and during the Covid-19 pandemic in Indonesia. Thus it can be seen that there is one variable that has a significant difference and three variables that have no significant difference before and during Covid-19. Therefore, in maintaining the stability of the value of the rupiah during the pandemic, the Central Bank must be more careful in maintaining the Money Supply. Where the Money Supply itself has a significant influence both before the pandemic and during the pandemic. If the Money Supply increases, Inflation will also increase, this has an impact on the stability of the Indonesian Rupiah Exchange Rate.*

***Keywords**: Inflation, Money Supply, Exchange Rate, Interest Rate*

INTRODUCTION

The phenomenon that has recently hit the world in 2020 is a nightmare for countries in the world. The impact caused not only disrupts the health of the world's population, but also has an impact on the economy of a country. The COVID-19 pandemic has caused severe pressure on the economy in Indonesia and a nightmare that has become a reality for the Indonesian rupiah currency. The rapid number of patients with a high fatality rate in the last two months, accumulated data from March 2, 2020 - March 23, 2021 as many as 1,298,608 positive cases and 35,014 deaths due to COVID-19. When the Indonesian government announced the first COVID-19 patient, the rupiah was in severe trouble. As a result of the pandemic, many countries implemented lockdown policies to curb the spread. As a result, economic activity declined sharply, and recession returned.

At the beginning of the depressed arrival of the COVID-19 virus in Indonesia, the Rupiah value reached 16,575 per US dollar on March 23, 2020. Then in the second semester of 2020 the rupiah appreciated by 1.19% and closed at the level of 14,050 per US $ at the end of 2020 point to point. Where in 2020, the Rupiah Exchange Rate increased to 15.9% from 7.0% in 2019, but this is still lower than the average volatility of the Brazilian Real, Turkish Lira, South African Randa (Faqir, Indonesian Economy 2020, 2020).

The increase in inflation was due to the lockdown and higher imports than exports. During the pandemic, some countries restricted the demand and delivery of goods, so many people stored goods and the goods became scarce and the price increased. Although not soaring, it greatly impacted the smooth stability of the Rupiah Exchange Rate and ultimately resulted in low economic stability. In addition, increasing inflation also has an impact on interest rates, where if inflation increases, the Central Bank will increase interest rates so that inflation decreases (Mulatsih, 2020).

Inflation itself has a tug-of-war role for the economy so that the economy in a country continues to grow. A growing economy shows that there is market activity that continues

to move in society. As long as inflation is still at a normal level, not too high or low, the stability of the Rupiah and the economy is maintained. To control Inflation, the Central Bank uses Interest Rates (Mulatsih, 2020).
Changes in exchange rates that are very fast and unstable are believed to destabilize international trade activities. What's more when the corona virus (COVID-19) begins to enter Indonesia and various other parts of the world, if not addressed, this condition will disrupt the sustainability of economic growth in the future. Joint efforts to maintain exchange rate stabilization, both by monetary authorities and financial market participants, are absolutely necessary. When exchange rate fluctuations affect the Indonesian economy and become an important consideration for monetary policy makers. Based on the background that has been described, the researcher is interested in taking the title "Analysis of Rupiah Exchange Rate Stabilization Economic Fundamental Approach in Indonesia Before and During the COVID-19 Pandemic.

LITERATURE REVIEW

1. Exchange Rate

Exchange Rate is the rate at which a country's currency is exchanged against another foreign country as a means of international payment. A more complete definition of the Exchange Rate is the exchange between two different currencies, which is a comparison of the value or price between the two currencies. This value comparison is often referred to as the Exchange Rate. There are two movements of the Exchange Rate, namely depreciation and appreciation. Depreciation is a decrease in the rupiah against the US dollar, while appreciation is an increase in the rupiah against the US dollar (Anwary, 2011).
The choice of system applied will depend on the situation and condition of the economy of the country concerned, especially the amount of foreign exchange reserves owned, economic openness, the foreign exchange system adopted (free, semi-controlled, or controlled), and the volume of the domestic foreign exchange market.
The exchange rate set by the central bank of a country basically has several main functions, namely: 1) to maintain the balance of the balance of payments, with the ultimate goal of maintaining sufficient foreign exchange reserves 2) to maintain the stability of the domestic market 3) monetary instrument, especially for countries that apply interest rates and exchange rates as operational targets of monetary policy 4) as a nominal anchor in inflation control.
Exchange rates that fluctuate too much can add uncertainty to the business world. This system is generally applied in countries that have relatively small foreign exchange reserves while the foreign exchange system adopted tends to be free, while Indonesia through the mandate of Law No.24 of 1999 concerning Foreign Exchange Traffic and Exchange Rate System provides a foundation that the Indonesian Exchange Rate system is a floating exchange rate system (Warjio, 2016).

2. Bank of Indonesia

Bank Indonesia aims to achieve and maintain the stability of the Rupiah. This objective is stated in Law No. 23/1999 on Bank Indonesia, as amended by Law No. 3/2004 and Law No. 6/2009 in article 7. The stability of the Rupiah has two dimensions. The first dimension of Rupiah stability is the stability of the prices of goods and services as reflected in the development of the Inflation rate. Meanwhile, the second dimension is related to the stability of the Rupiah exchange rate against other countries' currencies. Indonesia adopts a free floating exchange rate system. However, the role of exchange rate stability is very important in achieving price and financial system stability (BankIndonesia, 2020).
In an effort to achieve these objectives, Bank Indonesia has since July 1, 2005 implemented the Inflation Targeting Framework (ITF) monetary policy framework. This policy framework is considered to be in accordance with the mandate and institutional aspects mandated by law. In this framework, Inflation is the overriding objective. Bank Indonesia continues to make various improvements to the monetary policy framework, in accordance with changes in economic dynamics and challenges that occur, in order to strengthen its effectiveness.
The ultimate goal of monetary policy is to maintain the stability of the Rupiah, which is reflected in a low and stable inflation rate. To achieve this goal, Bank Indonesia sets the

BI-7 Day Reverse Repo Rate (BI7DRR) as the main policy instrument to influence economic activity with the ultimate goal of achieving Inflation. The process or transmission from the BI-7 Day Reverse Repo Rate (BI7DRR) decision to the achievement of the Inflation target goes through various channels and requires time (time lag) (BankIndonesia, 2020).

3. Inflation

This means that the higher the inflation rate, the greater the difference in the price of goods after inflation which results in the price of goods becoming more expensive. A high inflation rate can cause goods and services to become less competitive which causes the profits earned by the company to decrease. Inflation can cause an increase in production, the reason is that in a state of inflation usually the increase in the price of goods precedes the increase in wages, so that the company's profits increase. However, if the inflation rate is high enough (hyperinflation), it can have the opposite effect, namely a decrease in output (Dewi & Cahyo, 2016).

One of the policies in controlling inflation is in the form of monetary policy which is carried out to influence the Money Supply, Interest Rates and Exchange Rates. Inflation is said to be a monetary phenomenon because inflation can cause a decrease in the value of a unit of monetary calculation of a commodity or service. Inflation and Unemployment have a long-run and short-run relationship. Friedman and Phelps introduced a new variable into their analysis: Expected Inflation. Expected inflation. Expected inflation measures how much people expect the overall interest rate to change (Gordon, 2018).

When the rupiah falls in value, imported goods become more expensive which directly raises the price level and inflation. A falling rupiah makes goods in Indonesia cheaper for foreigners, increasing demand for goods in Indonesia and encouraging higher production and output (Faisal, 2011). Directly when the demand for goods and services in Indonesia increases, production must also be increased in order to meet the needs of goods and services on public demand, so that the balance is maintained, but if the amount of demand cannot be met by the availability of goods and services then Inflation will occur which causes fluctuations in the US$ Exchange Rate against the rupiah.

4. Interest Rate

Interest Rates directly affect people's daily lives and have an important impact on the health of the economy. Interest rates are usually expressed as an annual percentage charged on money borrowed. Interest rates are essentially prices. Like prices, interest rates are at the center of markets, in this case the money and capital markets.

Changes in interest rates can lead to changes in bank profits. This is due to the mismatch between asset and liability interest rates. Bank liabilities are short-term instruments, more sensitive to changes in interest rates than bank assets which are long-term instruments. As a result, an increase in interest rates can increase the payment of liabilities compared to the increase in asset revenue (Mangani, 2009).

On the other hand, an increase in interest rates will also attract investors to invest in the country and cause the domestic currency to appreciate. Of course, investors realize that this exchange rate appreciation can turn into depreciation when paying their foreign liabilities. However, investors will continue to buy domestic assets as long as the interest rate differential is still greater than the loss due to exchange rate depreciation. This illustrates that the short-run equilibrium in this model is reached if the interest rate differential is equal to the expected rate of domestic exchange rate depreciation. However, a decrease in the interest rate will result in capital outflows so that the exchange rate moves towards the long-term equilibrium.

5. Money Supply

Money in circulation is money that is in the hands of the public. However, this definition continues to evolve, along with the development of a country's economy. The scope of the definition of Money Supply in developed countries is generally broader and more complex than in developing countries. Classical economists (but not all of them) tend to define money in circulation as currency because it is money that is actually the purchasing power that can be used immediately. Money supply can be defined in a narrow, broad, and broader sense (Leviani, 2016).

Monetary policy uses the Money Supply, there are two monetary policies, namely expansionary monetary policy and contractionary monetary policy. Expansionary monetary policy is a monetary policy used to encourage economic activity, which among others is done through an increase in the Money Supply. While contractionary monetary policy is a policy aimed at slowing down economic activity such as reducing the Money Supply. Some of these monetary policy strategies are set to target the monetary amount, target the Exchange Rate and target Inflation.

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RESEARCH METHOD

This research approach is associative / quantitative research, according to (Rusiadi et al, 2017). Associative / quantitative research is research that aims to determine the degree of relationship and pattern / form of influence between two or more variables, where with this research a theory will be built that serves to explain, predict and control a symptom. In supporting quantitative analysis, the T-test model is used. The t-test is used to examine the difference in the effectiveness of rupiah stability before and during the Covid-19 pandemic in Indonesia.

RESULTS AND DISCUSSION

RESULTS

The rapid spread of the COVID-19 outbreak in Indonesia has had a major impact on the Indonesian economy. The government and community's response to preventive measures, such as: school closures, work from home especially for formal sector workers, postponement and cancellation of various government and private events, suspension of several modes of public transportation, and implementation of PSBB in various regions, homecoming bans, have slowed down the economy.

Table 1. Descriptive Statistics of Exchange Rate Before and During Covid-19 in Indonesia

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Exchange Rate Before Covid-19	8	14.2500	.36802	13.76	14.93
Exchange Rate During Covid-19	8	14.6454	.71420	14.05	16.31

Table 2. Descriptive Statistics of Inflation Before and During Covid-19 in Indonesia

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Inflation Before Covid-19	8	266.7500	98.67805	34.00	339.00
Inflation During Covid-19	8	159.3750	78.28508	16.00	296.00

Table 3. Descriptive Statistics of Interest Rates Before and During Covid-19 in Indonesia

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Interest Rate Before Covid- 19	8	259.1250	273.98302	5.00	575.00
Interest Rate During Covid-19	8	435.0000	373.15221	4.00	859.00

Table 4. Test Statistic of Money Supply Before and During the Covid-19 Pandemic in Indonesia

Test Statistics[a]

	Money Supply During Covid-19 – Money Supply Before Covid-19
Exact Sig. (2-tailed)	.008[b]

a. Sign Test

b. Binomial distribution used.

DISCUSSION

1. Analysis of Exchange Rates Before and During the Covid-19 Pandemic

The results of the study state that the Exchange Rate does not have a significant difference before and during the pandemic, this means that the pandemic period has no impact on the stability of the Rupiah Exchange Rate. However, other studies state that there is a significant effect on the Rupiah exchange rate before and during the pandemic, where a 1% increase in the positive case of Covid-19 causes a depreciation of the Rupiah against the US Dollar by 0.02% in Indonesia (Haryanto, 2020). The impact of the pandemic on the Exchange Rate is that the Rupiah Exchange Rate has weakened. One of the factors that cause rupiah depreciation is the decline in production activities due to the social restriction policy.

The decline in production activities has led to a decrease in the income of companies that are the driving force of the Indonesian economy. Almost all of these components are denoted by the US dollar, so in the process of taking it, the rupiah will depreciate by the dollar because there is a currency exchange (Intan, 2020).

A 1% increase in the Covid-19 case alone led to the depreciation of the Rupiah against the US Dollar (Haryanto, 2021). The clear evidence of this movement is that in March 2020, Indonesia's foreign exchange reserves fell to save the economy, from US$ 130.4 billion to US$ 121 billion, along with the highest depreciation of the rupiah against the US dollar. Despite the high depreciation in March 2020, in April 2020, the rupiah attempted to recover. This downward movement has continued until this month, which gives hope for a recovery in the value of the rupiah (Intan, 2020).

2. Inflation Analysis Before and During the Covid-19 Pandemic

Covid-19 has no effect on Inflation, where before and during the pandemic the Inflation rate experienced significant deflation, where deflation itself occurred due to people limiting consumption and preferring to save money. However, another study states that the Covid-19 pandemic has a significant negative effect on the Inflation rate, so the government does not need to worry about Inflation problems in stabilizing the economy (Priyadi & Susamto, 2021).

3. Analysis of Interest Rates Before and During the Covid-19 Pandemic

In this study, the Interest Rate did not have a significant difference both before the pandemic and during the pandemic. In addition, other studies also state that the relationship between interest rates and money supply is negative during the pandemic (Wijaya, Mukhlis, & Seprillina, 2021). However, research states that in the long run during the pandemic, the Money Supply, Interest Rates have a significant effect on Indonesian Inflation, but in the short term during the pandemic, the Money Supply has an effect during the pandemic, but the Interest Rate has no effect on Inflation during the pandemic (Asri Yuliani, 2021).

However, research (Heri, 2020) said that the reduction in interest rates during the pandemic had no effect on economic stability, where the policy was taken unsuccessfully. The impact of increasing and decreasing interest rates is very diverse, where if interest rates increase, the amount of money in circulation decreases, and vice versa, so that this has an impact on inflation and continues to destabilize the Rupiah exchange rate.

4. Analysis of the Money Supply Before and During the Covid-19 Pandemic

In this study, the money supply showed a significant difference between the period before and during the pandemic. During the pandemic, the money supply increased

compared to the period before Covid-19. The main reason for the increase in the money supply was the substantial financial assistance provided by the government to tackle the pandemic, along with the reduction in interest rates and the ease of access to financial injections. These factors had a significant impact on the economy. Although the money supply grew during the pandemic, it remained under control (Bank Indonesia, 2020). When the money supply is kept under control, inflation is also kept in check. Inflation itself refers to a condition in which the circulation of money increases rapidly, causing a rise in the prices of goods (Alfareza, 2022).
However, previous studies have stated that the money supply has a positive effect on economic growth. This means that the more the money supply increases, the higher the economic growth in Indonesia. The money supply has a positive and significant effect on economic growth (Dwi, 2017).

CONCLUSIONS AND SUGGESTIONS
CONCLUSIONS
The conclusions that can be drawn from this study are as follows:
1. There is no significant difference in the Exchange Rate before and during the Covid-19 pandemic in Indonesia.
2. There is no significant difference in Inflation before and during the Covid-19 pandemic in Indonesia.
3. There is no significant difference in Interest Rates before and during the Covid-19 pandemic in Indonesia.
4. There is a significant difference in the Money Supply before and during the Covid-19 pandemic in Indonesia.

SUGGESTIONS
The suggestions in this study are as follows:
1. In maintaining national stability, Bank Indonesia should be more assertive in monitoring Inflation and the Money Supply in Indonesia, both before and during the pandemic. These two variables are key factors in determining the stability of the Exchange Rate and Interest Rates in Indonesia, thus having a significant impact on the overall stability of the country.
2. For future researchers, it is recommended to further develop this study by enhancing the methods, variables, and discussions related to the stability of the Exchange Rate.

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