

Covid-19 Pandemic: The Study for Reserve Requirement of Indonesia

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Abstract

The Covid-19 pandemic has had an impact on the Indonesian economy. The purpose of this study was to analyze the causality and balanced relationship in the long term between RR, IR and INF variables during the Covid-19 pandemic. With the Granger Causality and Johansen Cointegration test methods, the results showed that there is a long-term balance between RR, IR and INF. RR and IR are one-way causality relationships, IR and INF are one-way causality relationships. There is no causality relationship between IR and RR and vice versa during the Covid-19 pandemic. The RR policy affects the determination of IR and IR affecting Indonesia's INF during the Covid-19 pandemic. To reduce the inflation rate during the pandemic, Bank Indonesia needs to implement RR policy through the determination of interest rates.

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Abstrak

Pandemi Covid-19 telah berdampak pada perekonomian Indonesia. Adapun tujuan dari penelitian ini adalah untuk menganalisis hubungan kausalitas dan keseimbangan dalam jangka panjang antara variabel RR, IR dan INF selama pandemi Covid-19. Dengan metode Granger Causality dan Johansen Cointegration test, hasil penelitian menunjukkan bahwa terjadi hubungan keseimbangan dalam jangka panjang antara RR, IR dan INF. RR dan IR terjadi hubungan kausalitas satu arah, IR dan INF terjadi hubungan kausalitas satu arah. Tidak terjadi hubungan kausalitas antara IR dan RR dan begitu pula sebaliknya dalam masa pandemi Covid-19. Kebijakan RR mempengaruhi penetapan IR dan IR mempengaruhi INF Indonesia selama pandemi Covid-19. Dalam menekan laju inflasi selama pandemi, Bank Indonesia perlu melakukan kebijakan RR melalui penetapan tingkat suku bunga.

JEL Classification: E31, E43, E58

Kata Kunci:

Covid-19; Giro Wajib Minimum; Pandemi

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The World Health Organization (WHO) explains that Coronaviruses (Cov) is a virus that infects the respiratory system. This viral infection is called COVID-19. Coronavirus causes common colds to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). Coronavirus is zoonotic which means it is transmitted between animals and humans. According to the Indonesian Ministry of Health, the development of COVID-19 cases in Wuhan began on December 30, 2019, where the Wuhan Municipal Health Committee issued an "urgent notice on the treatment of pneumonia of unknown cause". The spread of the Coronavirus is very fast even to cross countries. To date, 188 countries confirmed exposure to the Coronavirus. The spread of the Coronavirus that has spread to various parts of the world has an impact on the Economy of Indonesia, both in terms of trade, investment and tourism(Hanoatubun, 2020). Thus, this phenomenon disrupts the economies of developing countries including Indonesia.

One of the main problems experienced by economies in developing countries is efforts to maintain macroeconomic stability particularly in maintaining inflation. Like a disease, inflation arises due to various good causes arising from the demand side, as well as from the Offers(Sir, 2012). Inflation is one of the factors that cause a country's economy to become unstable. Indonesia, whose economy is still heavily dependent on the monetary system and the world economy, cannot avoid the inflation problem(Fajarwati & Setiawina, 2018).

Inflation is a state of the economy in a country where there is a tendency to increase prices of goods and services in general over a long period (continuously) due to unbalanced flows of money and goods(Feranika & Haryati, 2020). The picture shows the trend of Indonesia's inflation data before the pandemic, namely Nov19-Oct20. To prevent inflation, it is possible to reduce the amount of money circulating in the community and through reserve requirement policy by Bank Indonesia in regulating interest rates.

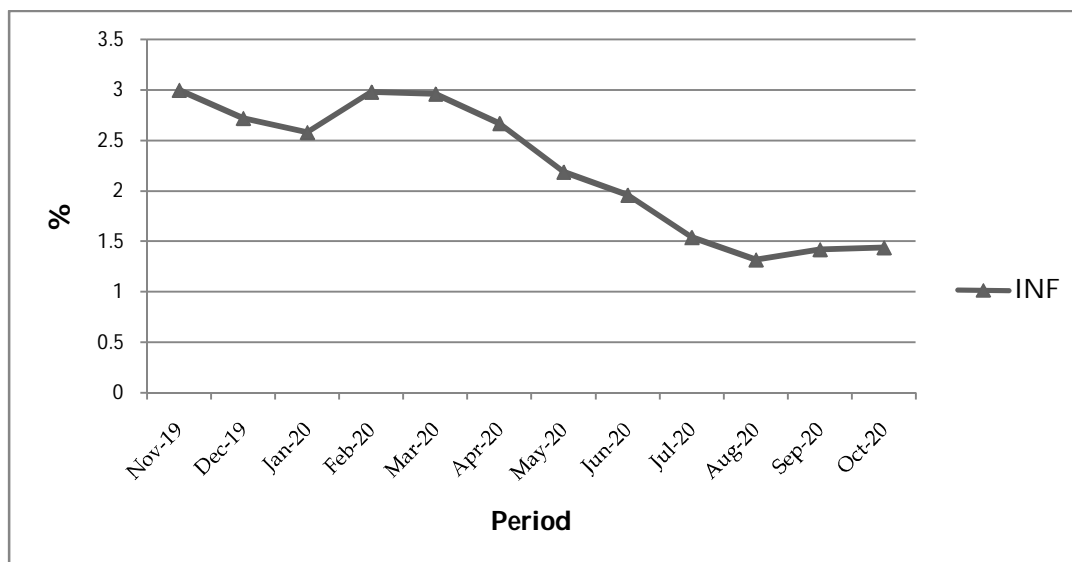


Figure1. INF of Indonesia

Source: (CEIC Data, 2020a)

Reserve Requirement hereinafter abbreviated as RR is the minimum amount of funds that must be maintained by the Bank, the amount determined by Bank Indonesia in the amount of a certain percentage of third party funds(Bank Indonesia, 2015).Primary RR is a minimum deposit in Rupiah that must be maintained by the Bank in the form of Current Account balance at Bank Indonesia, the amount determined by Bank Indonesia in the amount of a certain percentage of third party funds.Secondary RR is the minimum reserve requirement in Rupiah that must be maintained by the Bank in the form of Bank Indonesia Certificates, Bank Indonesia Deposit Certificates, Government Securities, and/or Excess Reserves, the amount of which is determined by Bank Indonesia in the form of a certain percentage of third party funds.

Bank of Indonesia may provide leeway on RR fulfilment obligations in rupiah that must be fulfilled daily (Bank Indonesia, 2020). Provision of leniency on RR fulfilment obligations in Rupiah which must be fulfilled daily for macroprudential policy. This form of policy can later affect interest rates to regulate the circulation of money in the community. Therefore, the purpose of this study is to find out and analyze among the three monetary variables of the reserve requirement, interest rate and inflation of Indonesia during the Covid-19 pandemic.

METHODS

By using time series data from Nov19 until Oct20 sourced from CEIC (www.ceicdata.com), this research was conducted by Granger Causality test method and

Johansen Cointegration test that was previously done stationarity test first. This type of research is quantitatively descriptive (Kurniawan, 2014) to test and analyze causal relationships one way or two also to test and analyze whether there is a long-term balance relationship between research variables (Widarjono, 2014) are reserve requirement (RR), interest rate (IR) and inflation (INF).

Stationary tests are used to test data stationary issues (Widarjono, 2014) using the root test of the ADF (Augmented Dickey-Fuller) unit test. The next stage of the cointegration test is used to see the long-term balance between variables (Rusiadi, 2014). And the final stage is carried out Granger Causality test to see the one or two-way relationship between variables or also called causal relationships (Basuki, 2019). The following stages in this study are (1) ADF test, (2) Johansen Cointegration (JC) test, and (3) Granger Causality (GC) test.

RESULTS

Corona Virus Disease 19 (Covid-19) is one of the pandemics that have spread to almost all countries, including Indonesian. As a result, impacts on different types of sectors are not only health but also the banking system (Wahyudi, 2020). With the covid-19 pandemic this, the government of the Republic of Indonesia regulations, namely ordering the community to Indonesia to stay at home and do not leave the house and do PSBB to keep your distance. It is resulting in the community not being able to get out of the home to carry out activities such as usually, such as trading, farming, breeding, etc (Salam, 2020).

Inflation occurring in Countries determined by a variety of factors affect it if reviewed according to the sense that inflation is a decrease in the value of the applicable currency in a Country compared to commodities such as gold or foreign exchange rates. This inflation should always maintain a minimal stability inflation rate (Rusmadi, 2017).

The Central Bank has the authority to conduct monetary policy through the establishment of monetary targets with the main objectives maintain the inflation rate target set by the Government. Operationally, control of monetary targets using instruments, including market operations opens in the money market both rupiah and currency foreigners, the establishment of discount rates, the establishment of minimum mandatory reserves, and credit settings or financing or moral appeals to the community to save some funds or excess money owned. Measurement of inflation control conducted in

this study limited to two policy instruments, this is because there are similarities i.e. the two variables this is aimed at the banking side(Sir, 2012).

Reserve requirement policy to regulate the amount of money circulating in the community that can suppress inflation. Reserve requirement for interest rate set by the Bank of Indonesia during the Covid-19 pandemic in Indonesia as shown below.

The spread of COVID-19 that has spread has finally brought very bad risks to the world economy, including Indonesia(Nasution et al., 2020).The data above shows Indonesia RR and IR trends during the pandemic starting from Nov19 to Oct20. IR follows the RR policy determination by Bank Indonesia but from Feb20 to June 20 the IR determination does not follow the RR policy because at that time Indonesia began to implement work from home (WFH).

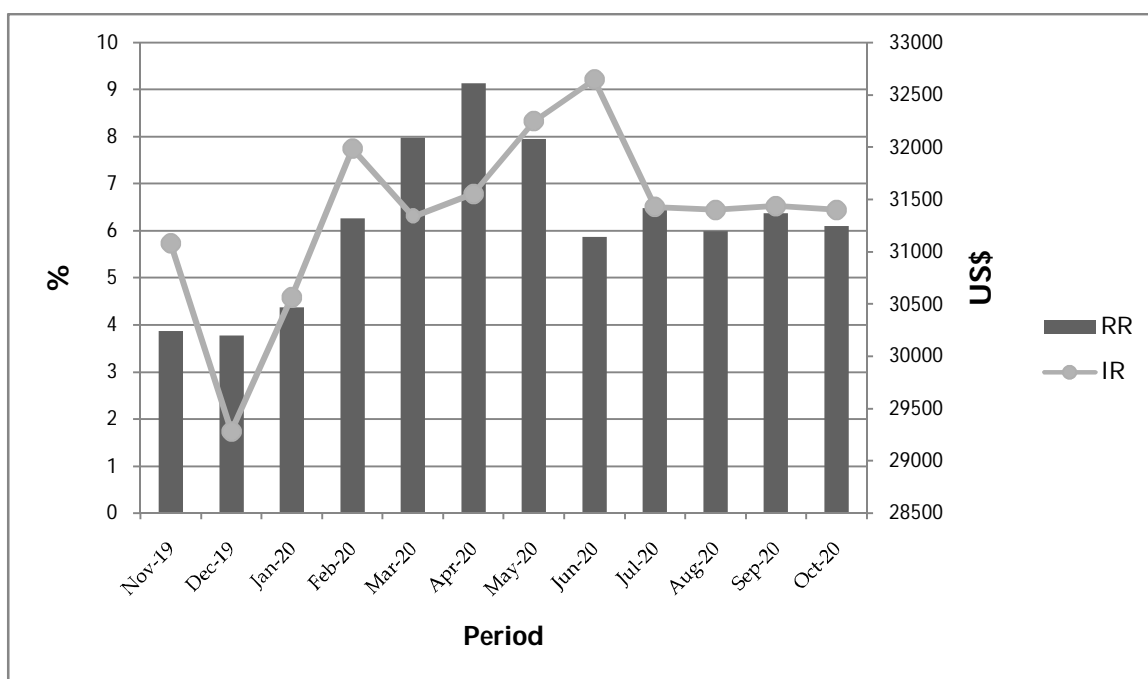


Figure2. RR and IR of Indonesia

Source: (CEIC Data, 2020b)

Many countries around the world have experienced an economic recession due to Covid-19 pandemic(Wuryandani, 2020).With the covid-19 pandemic, the government of the Republic ofIndonesia made a regulation that tells Indonesians to stay at home and not to leave their homes and do WFH to keep their distance. This results in people not being able to leave their homes to do their usual activities, such as trading, farming, breeding, and so on(Salam, 2020).

With the test stages by using Eviewsv. 10 software that has been discussed, the results in this study can be shown as follows:

Table 1. The Result of ADF and JC test

Variables	ADF	JC
RR	-2.851005 (0.0857)*	0.0000*
IR	-4.347886 (0.0093)*	0.0039*
INF	-3.609597 (0.0832)*	0.0018*

Source: data processed (2021); *denote significance at 10% level respectively

RR and INF variables are stationary at the level while IR variables are stationary at 1st differenced degree. The results of the cointegration test showed that there was a long-term balance between RR, IR and INF Indonesia variables during the Covid-19 pandemic.

The following are the results of the Granger Causality test presented below:

Table 2. The Result of the GC test

Variables	GC test
INF to RR	2.05540 (0.2231)
RR to INF	3.03165 (0.1373)
IR to RR	1.17968 (0.3805)
RR to IR	6.36474 (0.0422)*
IR to INF	10.3572 (0.0167)*
INF to IR	2.96386 (0.1416)

Source: data processed (2021); *denote significance at 10% level respectively

The GC test results showed that INF and RR had no causal relationship and vice versa. RR and IR have a one-way causality relationship. INF and IR have a one-way causality relationship. So the findings in this study that there is a long-term balance between RR, IR and INF Indonesia during the Covid-19 pandemic. There is a one-way causality relationship between RR and IR, there is a one-way causality relationship between IR and INF Indonesia during the Covid-19 pandemic.

DISCUSSION

Bank Indonesia as the central bank in Indonesia is a have authority in regulating and supervising banks. With his authority Bank Indonesia issues provisions that must be

adhered to by the regulations of Bank Indonesia, one of which is the reserve requirement. RR determination is one of the instruments of the monetary authority of Bank Indonesia as a monetary authority aimed at influencing the money in circulation in the community(Iriani, 2013).

Reserve requirement is a minimum amount of funds from third party funds of a certain percentage that must be owned by banks according to PBI No. 17/11/PBI/2015. There is a link between RR and bank intermediation function. The greater the value of the reserve fund indicates the number of idle funds in large banks due to low bank lending. By government regulations, LDR-based RR will encourage banks to be more active in channelling it because it will trigger an increase in the cost of funds of a bank if the bank's reserves are high and will decrease the bank's competitiveness. Competition in lending will have an impact on the declining lending rate but on the other hand, will increase deposit rates. So it will affect the increasing number of bank depositors(Putri & Suryantini, 2017).

The increase in the reserve requirement will lead to an increase in the interest rate of the loan due to the cost of loanable funds are increasing. This strategy is usually referred to as monetary contraction strategy. On the contrary, the monetary expansion strategy is carried out by lowering the percentage of reserve funding, so that the more credit disbursed by banks and the amount of money circulating in the community will be Increased(Pradhana, 2016).

The three variables of the reserve requirement, interest rate, and inflation integrating have a balanced relationship in the long term according to the research(Siburian, 2011). The increase in reserve requirement and interest rate will be accompanied by an increase in inflation(Sir, 2012).This condition can be interpreted that during the Covid-19 pandemic there is a long-term balance between Indonesia's reserve requirement, interest rate, and inflation.Besides, the findings in this study that during the Covid-19 pandemic between inflation and reserve requirement there is no causality relationship.

Reserve requirement has a one-way causality relationship to an interest rate by previous research that states that reserve requirement will affect the interest rate i.e. on loans.In setting the minimum mandatory giro of a Sharia bank, it is necessary to requirements and considerations in determining how the minimum required amount that a bank must back up to Bank Indonesia(Dela, 2018).The liquidity level of a bank from the

application of reserve requirement policy will affect the determination of the interest rate of loans in a commercial bank by Bank Indonesia during the Covid-19 pandemic.

The interest rate has a one-way causality relationship to inflation by macroeconomics theory. The determination of the monetary policy response (BI Rate) is carried out by taking into account the lag of monetary policy in influencing inflation (Mankiw et al., 2013). The determination of interest rates will respond to the market that suppresses the inflation rate in the determination of monetary policy by Bank Indonesia. In this case, it is true based on the theory that what needs to be done by Bank Indonesia during the Covid-19 pandemic to reduce the inflation rate is through the policy of setting interest rates.

CONCLUSION

Reserve requirement policy by Bank Indonesia may affect inflation conditions through prices of goods and services in the market during the Covid-19 pandemic. The findings in this study show that there is a long-term balance between reserve requirement, interest rate, and inflation. Reserve requirement and interest rate have a one-way causality relationship. Interest rate and inflation have a one-way causality relationship during the Covid-19 pandemic in Indonesia. But inflation and reserve requirements do not indicate a causality relationship. It becomes an important reserve requirement policy by Bank Indonesia during the pandemic to set interest rates. And the interest rate that will maintain the inflation rate in the market during the Covid-19 pandemic in Indonesia.

RECOMMENDATION

Recommended to the government, namely Bank Indonesia in setting monetary policy through reserve requirement continues to lead to the determination of interest rates that suppress the amount of money in circulation so as not to have an impact on rising prices of goods and services, namely high inflation. This affects people's purchasing power during the Covid-19 pandemic and causes the economy to be disrupted.

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