



Acceleration of the Banking Sector and Economic Growth: Effectiveness of Economic Recovery Strategies Post-Covid-19

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Abstract: The banking sector around the world is under great pressure due to the current state of the Covid-19. This study investigates how Covid-19 impacts systemic risk in the banking sector across all types of banking lines affected by Covid-19. This study found that all banking lines experienced a significant increase in systemic risk among the types of banking that were sampled initially. By using spillover policies, it is also possible to identify institutions that are systemically important. The analysis was performed using Panel Data Regression, SVAR, and FEVD on individual bank data and macroeconomic data. The findings proved that government policies to drive the business cycle and MSME actors in the context of overcoming the impact of Covid-19, have not shown their effectiveness. This is indicated by the negative response of economic growth to the policies that have been issued. On the other hand, the performance of banking financial institutions also contributes to national economic growth. This is indicated by the sensitivity of the bank's internal variables in responding to national economic growth. Likewise, with the response to government policies and macroeconomic conditions. Therefore, there is a need for an acceleration policy in handling the current national economic recovery.

Originality/Value: This paper focus on systematic risk in banking during COVID-19, use of advanced econometric techniques, evaluation of government policies, integration of bank performance and macroeconomic growth, and its assessment of policy effectiveness, and its implications for future economic recovery efforts.

Introduction

The impact of the Covid-19 pandemic is not merely on health but on all sectors, especially on the economic sector whose impacts are major. Covid-19 has had a major impact on the financial sector as well as the real sector around the world (Rizwan et al., 2020). This serious economic downturn causes high levels of debt, causing an increase in the possibility of non-performing loans in the future. Further impact is the decrease in corporates' income and the increase in unemployment, which will exacerbate the burden of debt payment for both companies and households (Makin & Layton, 2021). As a result of the current pandemic, many companies including small and medium-sized businesses are starting to have a high risk of default, and if continues, it will have an impact on the decline of national economic

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growth. From the data, economic growth experienced a deep recession (−5%) in mid-2020. The same thing was experienced in credit growth which has decreased from 2019 until the end of 2020 even minus. However, this condition is different from Fundraising Deposits or Third-Party Funds (TPF) which experienced a drastic increase, although it also decreased at the end of 2020. The value of NPL is relatively constant, this is probably due to the credit restructuring policy carried out by the government (OJS, 2020a, 2020b, 2020c, 2020d).

The impact of pandemic on the economic sector is indicated by the projection of the global economy being depleted by 3% of real GDP in 2020, even some developed countries experienced a decline of 6.1% (IMF, 2020). Most governments responded by managing these economic and financial shocks by providing various kinds of fiscal, monetary, and other macro policy stimuli. If the policy response is not made accordingly, it will lead to a more serious crisis (OECD, 2020). Globally, regulators have responded to policy by easing regulatory requirements, delaying loan payments, and de-classifying non-performing loans (NPLs) (WorldBank, 2020). In Indonesia, the government has responded to the Covid-19 pandemic by issuing several policies, one of which is the Government Regulation in Lieu of Law (Perpu) No.1 of 2020 concerning State Financial Policy and Financial System Stability. The Financial Services Authority (OJK) also issued Regulation Number 11/POJK.03/2020 concerning national economic stimulus as a countercyclical policy for the impact of the spread of the Covid-19 virus. Several other institutions also issued various stimulus policies as a response to the pandemic that occurred.

The uncertainty of the pandemic condition (timing) and the extended stimulus policies have made an impact on the credit restructuring policies, especially on the increasing systemic vulnerabilities in the banking sector. In particular, the vulnerability of the credit market in the banking sector may trigger a new financial crisis (Fuente, 2021; Wielen & Barrios, 2021). This study is motivated by the negative impact of the stimulus and further aims to provide an initial exploration of the evolution of systemic risk in the country and the banking industry. It can be seen that even though the government has carried out various kinds of fiscal and monetary stimulus during the pandemic (2020 and 2021), economic growth was negative. It shows that the characteristics of the crisis during the pandemic were different from the previous crisis conditions, in which all sectors and all levels of society were affected (Wielen & Barrios, 2021).

The increase in systemic risk vulnerability of the banking system is associated with three reasons. First, liquidity risk due to economic slowdown, financial resilience, and reduced access to the capital market due to potential credit rating downgrades (SPGlobal, 2020). Second, the loss of intermediation revenue caused by regulatory and policy responses including the suspension of loan payments and the availability of government-guaranteed loans at very low interest rates (IMF, 2020). While these measures help in limiting the risk of immediate default, a significant increase in NPL is unavoidable (Ratnovski, 2020). Third, a very drastic decline in the banking business cycle (intermediation) could adversely affect the ability of banks to finance operations and bank funding costs. These risks spread very quickly through interconnections between financial institutions (Buch & Dages, 2018).

One of the most frequent impacts of an economic crisis (a continuous decline in economic growth) is the increase of NPL. This has been found in many financial literatures. The financial accelerator model developed by Bernanke (1983), Bernanke and Gertler (1989), and Leeper et al. (1996) showed that If banks are burdened with non-performing loans and a weak balance sheet, it will reduce and limit their credit capacity, resulting in lower lending to the real sector. If non-performing loans continue to rise, it will result in limited bank profitability, erode capital, weaken bank soundness, and ultimately reduce credit expansion capacity. In the current state of the Covid-19 pandemic, if unresolved non-performing loans increase dramatically, it may be able to thwart the post-Covid-19 economic recovery policy program. A high NPL ratio is positively correlated with high corporate debt, thereby suppressing investment and delaying economic recovery (Aiyar et al., 2015). Empirically, excessive corporate debt explains about 40% of the cumulative decline in aggregate investment among European firms in the 4 years following the European debt crisis in 2008 (Kalemli-Özcan et al., 2018). By examining the dynamics of NPLs during 88 banking crises in 78 countries since 1990, we found a close association between high and persistent NPLs and large and persistent output declines during the post-crisis period (Ari et al., 2019, 2020).

In the case of several countries' policies in responding to the current Covid-19 pandemic, among others: China immediately responded to Covid-19 by investing RMB3.33 trillion into the banking sector through open market operations of around RMB1.8 trillion as an expansion of re-lending and re-discounting facilities, lowering the 7-day and 14-day reverse repo rates by 30 and 10 bps respectively, and lowering the medium-term lending facility (MLF) and medium-term lending facility (MLF) rates by 30 and 20 bps respectively. The United States (US) has also taken several fiscal and monetary measures including the \$484 billion Wage Protection Act and Health Promotion Programme, and approximately \$2.3 trillion to provide social assistance and Coronavirus Economic Security; to support small and medium-sized businesses. The federal funds rate was lowered by 150 bps in March, and the current target level is 0-0.25 bps. In addition, regulators have encouraged deposit lenders to utilise their capital and liquidity buffers and lowered the leverage ratio of community banks to 8% (Rizwan et al., 2020).

In Europe, in addition to fiscal stimulus, the European Central Bank (ECB) provided monetary policy support to its participating country, including €120 billion in additional asset purchases, for each country, until the end of 2020. A new liquidity facility (PELTRO) was introduced as a refinancing operation with a long-term interest rate 25 bps lower than the average refinancing operation (MRO) rate. Systemically, important institutions were temporarily allowed to operate under the Pillar 2 Guidelines, capital adequacy buffer, and liquidity adequacy ratio. Furthermore, capitalisation requirements for Pillar 2 Requirements have been relaxed, and ECB Banking Supervision has temporarily relaxed the classification requirements and loss allowance expectations for NPLs (Rizwan et al., 2020; SPGlobal, 2020).

In Indonesia, through Law No. 22/2020, the government provided a stimulus policy in the national Economic Recovery program in 2020 with a realized value of IDR 579.9 trillion. In 2021 the recovery framework was centered on 3 things, namely health intervention through free vaccination and discipline in the application of the Covid-19 protocol, both survival and recovery kits to maintain business sustainability, and third structural reforms through Law no. 11/2020 on job creation. In addition, the 2021 APBN was designed as part of efforts to encourage national economic growth. By allocating the National Economic Recovery expenditure of 22% from the previous year.

The responses of some of the policies mentioned above are intended to manage economic and financial shocks and maintain positive economic growth. **The novelty of this study is** the use of a methodology to estimate systemic risk and analyze its evolution to see if the policy response has provided the expected benefits. In this study, researchers explore the possible impact of Covid-19 outbreak on the financial system in Indonesia, mainly on the financial institution industry, particularly banking, and map how effective the government and regulator stimulus policies are in responding to the Covid-19 pandemic in Indonesia. The current situation of exogenous variables with the existing macroprudential regulatory framework can monitor and respond to such systemic shocks. For example, on 20 March 2020, the Basel Committee on Banking Supervision (BCBS) has coordinated the policy and supervisory response to Covid-19 from various regulatory and supervisory actions for member jurisdictions. Furthermore, how the response of the financial industry (banking) in taking policies in response to the policy stimulus that has been issued by the government to withstand the systemic shocks that occur is also analyzed. Thus, banking movements that are aligned with economic growth will encourage national economic recovery.

Literature Review

Business cycles in developing countries are influenced by political and economic crises (Lunsford, 2023; Pătruți, 2023). These crises often lead to macroeconomic instability, driven by both domestic and external shocks. For instance, the global economic and financial decline of 2007-2008 which began with the subprime mortgage turmoil in the United States, evolved into a financial crisis that triggered an economic recession in developed countries in 2008 (Amu et al., 2021).

Economies strive for high and stable growth without macroeconomic fluctuations. This is often unattainable as evidenced by the recession phase of the business cycle. A recession is typically marked by a decline in Gross Domestic Product (GDP) in two consecutive quarters. (Alpanda, 2021; Amu et al., 2021; Dosi et al., 2019; Peng et al., 2020).

Economic growth is widely recognized as a crucial factor in alleviating poverty and enhancing national welfare. Instability in the banking sector will endanger financial stability and have long-lasting detrimental effects. Research on post-transition European Union countries during the period 1998 to 2016 reveal that the relationship between certain indicators of banking sector stability and economic growth can be bidirectional. policy. These responses should focus on preventing future shocks, mitigating their adverse impacts, and promoting economic growth (Bayar et al., 2020).

Real Business Cycle (RBC) theory views recessions and booms as efficient responses to exogenous changes in the real economic environment. According to RBC theory, business cycles do not represent market failures but rather reflect the most efficient operation of the economy, given the structure of the economy and the rationality of economic agents. The RBC model is grounded in rational expectations and the maximization of expected utility. This theory holds that the level of output in the economy at each point maximizes the expected utility of economic agents at large (Alpanda, 2021; Amu et al., 2021; Dosi et al., 2019; Peng et al., 2020).

Economic growth, as measured by GDP, reflects national economic stability. Various factors influence economic growth, including the performance of financial institutions (such as banks) and macroeconomic conditions/ factors. Indicators of bank performance can be seen such as the collection of third-party funds, lending/ financing activities, the number of non-performing loans, and the value of bank assets. These are crucial for assessing their support for the national economy and their impact on the real sector (Alpanda, 2021; Flamini et al., 2019; Frait et al., 2015). Credit distribution is the main indicator that drives sustainable economic growth because it directly targets the real sector. However, excessive credit distribution can signal an imbalance that may lead to a systemic financial crisis (Flamini et al., 2019).

One element that can exacerbate the impact of a crisis is the procyclical behavior of the banking system after a shock. The regulatory response by policymakers (regulators) aims to strengthen the resilience of the banking system and limit its procyclicality. The countercyclical capital buffer (CCB) is part of Basel III as the main macroprudential tool is designed to protect the banking sector from periods of excessive aggregate credit growth that is often associated with the accumulation of risks throughout the system (Alessandri et al., 2015; Drehmann et al., 2011; Flamini et al., 2019).

The current economic shock stems from the Covid-19 pandemic, which began spreading in early 2020. Numerous studies have examined the economic impact caused by the pandemic across various countries. For instance, research on countries that implemented lockdown policies (Austria, Portugal, Sweden, France, Italy, and Spain), found that the long duration of the lockdown/ extended lockdown durations had produced a negative effect on GDP growth (systematic deterioration of the economic system). Another finding is that countries with higher investments in health (as a percentage of GDP) (Coccia, 2021). A similar study conducted in Nigeria found that the lockdown due to Covid-19 significantly hampered economic activities and disrupted circular income flows, thus having a negative impact on economic growth in Nigeria. This situation has prompted regulators to devise strategic policies to reduce the effects of the pandemic and prevent recession (Inegbedion, 2021).

China's economy was the first to show signs of recovery following the slowdown caused by the Covid-19 pandemic. The spillover effect of China's post-Covid-19 economic recovery has had the most pronounced impact on increasing energy consumption in high-income countries, followed by middle-income countries. It should also be noted that the spillover effects of China's economic growth do not necessarily lead to increased energy consumption in lower-middle-income countries (Wang & Zhang, 2021).

In the dual banking system concept, conventional banks operate alongside Islamic banks. Islamic banks have a systemic risk profile that is not the same as conventional banks because Islamic banks apply a unique business model without any interest element. The study, which was conducted in 10 countries with a sample of 114 conventional banks and 33 Islamic banks, tested the evolution of systemic risk in dual-banking systems and looked at the differences in the systemic risk profiles of conventional banks and Islamic banks during the Covid-19 pandemic. The findings of this research indicate a significant increase in systemic risk during the first half followed by a recovery in the second half of 2020. Another finding is that Islamic banks have similar systemic vulnerabilities to systematic and specific factors during economic shocks particularly those caused by exogenous factors like Covid-

19. Despite this, Islamic banks experienced a much smaller impact compared to conventional banks and even generated abnormal profits. These findings highlight the importance of implementing a dual banking system in the banking system in a country (Rizwan et al., 2022).

Another study focuses on looking at the impact of the Covid-19 pandemic on Islamic bank financing to SMEs in Turkey as one of the emerging markets. The study focuses on whether SME financing in the Islamic banking sector is procyclical to reduce the impact of Covid-19. Data was obtained from Islamic banks' balance sheets and analyzed using vector autoregressive (VAR). The findings of this research state that the Islamic banking sector for SME financing has behaved countercyclically during Covid-19 in the Turkish economy. This indicates the importance of Islamic banking financing in the SME sector to face economic shocks in developing countries due to the pandemic (Doruk, 2023).

Methods

Data

In connection with the aim of obtaining a generalization of the theory, the data used in this study is quantitative (numbers). Among the data used are several accounts in the monthly publications of banking in Indonesia (Islamic lending/financing, total assets, total deposits, capital, and total bank income in a certain period) sourced from the official website of each bank. The data was taken by purposive sampling technique, which is a sampling technique with certain criteria to achieve certain goals. The sample criteria used in this study are banks that publish monthly financial data through their respective official websites, in 2016-2020.

Other data are macroeconomic data such as interest rates and inflation rates. The value of Gross Domestic Product (GDP) and its growth will also be used to complete the analysis. This study will also examine the effects of government policies at the beginning of the Covid-19 pandemic in Indonesia on national economic growth (GDP). The policies observed are policies that are carried out for the business world and MSME actors who are the drivers of the real sector. Ideally, this policy will have an impact on increasing national economic growth. The implementation of this policy will be measured by a dummy variable, indicating the conditions before the policy (0) and after the policy (1).

Data analysis method

The primary aim of this research is to evaluate the level of effectiveness of various government policies issued since the start of the Covid-19 pandemic in Indonesia. To assess the level of effectiveness of these policies, the Structural Vector Auto Regression (SVAR) model will be employed. The use of SVAR is intended to obtain a non-recursive orthogonal IRF from the error term (Enders, 2015; Greene, 2002; Gujarati, 2004). In the SVAR framework, the variables are assumed to be endogenous, the following is the modeling:

Model 1:

$$\begin{bmatrix} e_{\%gdp} \\ e_{credit} \\ e_{tpf} \\ e_{income} \\ e_{assets} \end{bmatrix} \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ a_{21} & 1 & 0 & 0 & 0 \\ a_{31} & a_{32} & 1 & 0 & 0 \\ a_{41} & a_{42} & a_{43} & 1 & 0 \\ a_{51} & a_{52} & a_{53} & a_{54} & 1 \end{bmatrix} \begin{bmatrix} u_{\%gdp} \\ u_{credit} \\ u_{tpf} \\ u_{income} \\ u_{assets} \end{bmatrix} \tag{1}$$

Model 1 illustrates several equations, namely: 1) the effect of GDP growth on GDP growth itself; 2) the effect of bank lending and GDP growth on lending; 3) the effect of TPF, bank lending, and GDP growth on TPF; 4) the effect of bank income, third party funds, bank lending and GDP growth on bank income; 5) the effect of bank assets, bank income, third party funds, bank lending and GDP growth on bank assets.

Model 2 shows several similarities, namely: 1) the effect of GDP growth on GDP growth itself; 2) the effect of inflation and GDP growth on inflation; 3) the effect of interest rates, inflation, and GDP growth on interest rates; 4) the effect of dummy 1, interest rates, inflation, GDP growth on dummy 1; 5) the effect of dummy 2, dummy 1, interest rates, inflation, GDP growth on dummy 2.

Model 2:

$$\begin{bmatrix} e_{\%gdp} \\ e_{inflation} \\ e_{interestrate} \\ e_{dummy1} \\ e_{dummy2} \end{bmatrix} \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ a_{21} & 1 & 0 & 0 & 0 \\ a_{31} & a_{32} & 1 & 0 & 0 \\ a_{41} & a_{42} & a_{43} & 1 & 0 \\ a_{51} & a_{52} & a_{53} & a_{54} & 1 \end{bmatrix} \begin{bmatrix} U_{\%gdp} \\ U_{inflation} \\ U_{interestrate} \\ U_{dummy1} \\ U_{dummy2} \end{bmatrix} \quad (2)$$

Dummy 1 is the period before and after the stipulation of government policies for the business world and business actors. The government's policy for the business world was launched through the Ministry of Finance since the beginning of the Covid-19 pandemic. Among these policies are government guarantees for labor-intensive corporate working capital loans of Rp. 10 billion to Rp. 1 trillion in the corporate category: (1) export-oriented and/or labor-intensive with a minimum of 300 employees; (2) not included in the category of state-owned enterprises and MSMEs; (3) not in the list of legal cases and/or bankruptcy claims; and (4) had a current performing loan prior to the Covid-19 pandemic. The guarantee portion is 60% of the credit, and for the priority sector of the guarantee 80% of the credit; government support in the labor-intensive corporate guarantee scheme consists of (1) subsidy for guarantee fees; (2) state equity participation for LPEI and PT. PII; and (3) the fee for the stop loss guarantee is borne by the government; 0.5% final income tax (PP 23/2018) is borne by the government for MSME actors; a reduction in the general corporate income tax rate from 25% to 22% in 2020 and 2021, and 20% in 2022; the reduction in the income tax rate is 3% lower than the general rate for public companies, with the total number of paid-up shares traded on the IDX at least 40% and meeting the requirements as stipulated in PP 30/2020 (Ministry of Finance, 2020).

Dummy 2 refers to the period before and after the stipulation of government policies with Bank Indonesia and OJK for Micro, Small and Medium Enterprises (MSMEs), since the beginning of the Covid-19 Pandemic. Among the main points of the policy are direct cash assistance (BLT) of Rp. 2.4 million for ultra-micro, micro business actors who are not currently receiving working capital loans from banks or financial institutions (un-bankable); 0.5% final income tax (PP 23/2018) is borne by the government for MSME actors; interest subsidy/margin subsidy given to debtors of micro, small and medium enterprises, with a credit/financing ceiling of a maximum of Rp10 billion, for a maximum period of 6 months; debtors with a cumulative credit/financing ceiling above Rp500 million - Rp10 billion must obtain restructuring from credit/financing distributors until the end of the Covid-19 emergency period; relaxation of Ultra Micro Financing (UMi) debtors; relaxation of administrative requirements and speed of granting Umi credit; convenience and expansion of Umi's credit distribution; government guarantees for working capital loans for MSME actors through payment of guarantee fees, loss limits, and state capital participation to PT. Jamkrindo and PT. Askrindo. The guarantee portion is 80% of the credit; The Pre-Employment Card budget was increased from IDR 10 trillion to IDR 20 trillion for 5.6 million workers who were laid off or laid off, informal workers, and micro and small business actors affected by Covid-19 (Ministry of Finance, 2020).

This research also uses panel data regression analysis to measure the influence of credit, TPF, income, assets, inflation, and interest rate, as well as dummy 1 and dummy 2 on GDP Growth. The following model is used in this research:

$$GDPGrowth = a + \beta_1 Credit + \beta_2 TPF + \beta_3 Income + \beta_4 Assets + \beta_5 Inflation + \beta_6 InterestRate + \beta_7 Dummy1 + \beta_2 Dummy2 \quad (3)$$

Results and Discussion

Model 1

Model 1 involves the variables of GDP (growth), bank lending, collection of bank deposits, bank income, and bank assets. The data stationarity test has been carried out on the five variables. The results of the data stationarity test with Fisher - ADF concluded that the five variables were stationary at 1st difference with a p-value below 0.05 (p-value < 0.05).

Furthermore, the stability test of the model was carried out based on the modulus value in the AR Roots (roots of characteristic) table. The stability test results conclude that the model is stable at a maximum lag of 10. This is evidenced by the AR Roots value and the modulus is below 1, when using a lag of 10.

The next step is to identify the VAR model using the AIC, SIC, FPE, and HQ values with the smallest values and LR with the largest values. Data analysis in this study was conducted with Eviews 10, so to see the identification of the VAR model, it can be seen with the most star codes (*). The test results show that the optimum lag = 3, so the model to be used is VAR (3). This means that these variables influence each other not only in the current period (t), but these variables influence each other up to the previous 3 periods (t-3).

The next step is to test the feasibility of the model. This is important to do to determine the feasibility or suitability of the model when used for forecasting (white noise). This test is done with Portmanteau Autocorrelation. With a lag of 24, the p-value of the Q-statistic is above 0.05 which indicates that there is no residual autocorrelation in the model. The next step is to perform a formal white test to determine the homogeneity of the residuals in the model. The results of the joint test conclude that the residuals are homogeneous, including the residual crosses between variables. This is evidenced by the p-value (joint) exceeding 0.05.

After carrying out the series of tests, the next step is to forecast the parameters with the impulse response function. Figure 2 (top left) shows the response of GDP growth to GDP itself. Since the beginning of the shock period, GDP growth has responded positively to GDP growth itself, although with a downward trend until the 60th period.

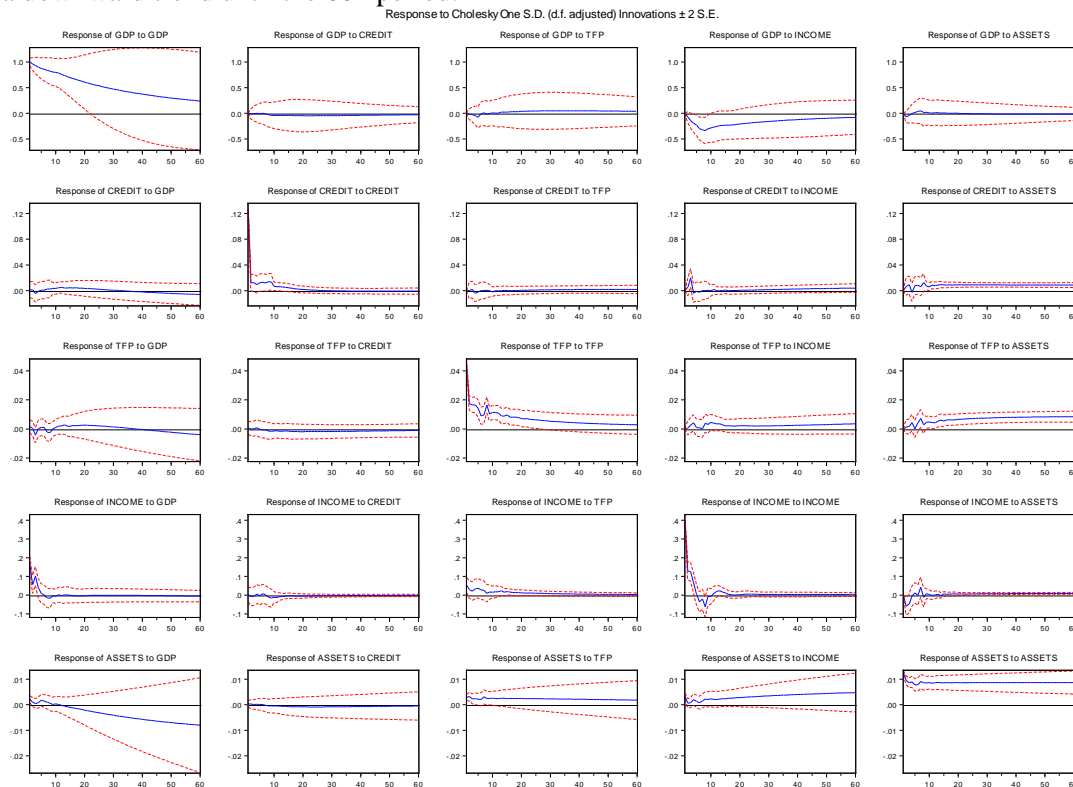


Figure 1. Results of Forecasting Model 1 with Impulse Response

Source: Results of data processing with EViews 10

In the first period of shock, GDP growth did not respond to bank lending. GDP growth began to respond to bank lending in the second period, with a negative response. Until the 60th period, the magnitude of the response of GDP growth to bank lending only ranged from -0.02 to -0.03. As in the relationship between GDP and bank lending, it was found that there was no response from GDP growth to the collection of deposits in the first period. This continues until the 6th period. Furthermore, in the 7th to 60th periods, GDP growth consistently gave a negative response of -0.01 to bank lending.

The GDP growth response to bank income began to occur in the 2nd period with a negative response of -0.06 and the negative response continued into the long term. The peak was in 7th and 8th periods

where the GDP growth response to bank income reached -0.23. In other periods, the negative response was in the range of -0.12 to -0.22. The GDP growth response to bank assets began in the 2nd period with a response of -0.07. Furthermore, there was a decrease in the negative response until the 7th period the negative response was 0.01 and it continued to be at that point until the 10th period.

The disbursement of bank credit gave a response of 0.001 when the shock occurred for the first time and lasted until the 2nd period. Furthermore, in the 3rd and 4th periods the response turned negative by -0.001. In the 5th period there was a positive response up to 0.004. The positive response continued until the 29th period. However, from the 30th to the 60th period, the negative response again fluctuated with an estimate of -0.001 to -0.003.

Next is the credit response to credit itself which began to occur when the shock occurred for the first time until the 11th period with a response range of 0.001 to 0.019. The peak occurred in the 3rd period with a response of 0.019. In the 12th to the 60th period there was no credit response to the credit itself. There was no response in bank lending to TPF in the first and second periods after the shock. Positive responses occurred in the 3rd period to 0.002 and then there was a negative response of -0.004 until the 14th period. Furthermore, there was no response until the 15th and 16th periods. Since the 17th period, there has been a positive response to bank lending to deposits, although the response is low (ranging from 0.001 to 0.003).

The relationship between bank lending and bank income began to respond in the second period after the shock. The climax response occurred in the 3rd period which reached 0.018. In the next period there were positive responses ranging from 0.003 to 0.004, which occurred until the 60th period. Bank lending began to respond to bank assets in the second period with a positive response. The magnitude of the response is classified as smooth with a value range of 0.009 – 0.011 until the 60th period. The collection of bank deposits began to respond to GDP growth in the 5th period with a negative response and a downward trend until the 60th period. Meanwhile, TPF responded to bank lending in the second period with a positive response of 0.002 after the shock. Furthermore, in the 3rd to 60th period, there was no response from TPF to bank lending. The DPK collection responded positively to the DPK collection itself since the second period of the shock. The highest response was 0.021 which occurred in the 3rd period. The trend of the response decreased and remained with a positive response until the 60th period. If it is related to bank income, the collection of third-party funds responds positively to bank income with a smooth trend ranging from 0.002 to 0.003 in the 60th period. This means that if the collection of deposits is high, the bank's income will increase. If the collection of third-party funds is related to bank assets, then the response is positive starting from the 2nd period after the shock, with an upward trend. This is because the high collection of third-party funds will increase the bank's assets.

If bank income is related to GDP growth, there will be a positive response of bank income to GDP growth starting in the 2nd period after the shock until the 5th period. The trend of the response decreased and in the 6th period the response disappeared. Meanwhile, if it is related to bank lending, there is no visible response of bank income to bank lending since the shock until the 60th period. Furthermore, bank income responded positively to the collection of deposits from the beginning of the shock until the 20th period with a downward trend. After that, the response was no longer seen until the 60th period. On the other hand, if it is related to bank assets, the collection of deposits has a negative response to bank assets since the beginning of the shock until the 6th period with an increasing trend. Subsequently, the response disappeared until the 60th period.

Bank assets responded positively to the growth of bank deposits from the beginning of the shock until the 6th period with a downward trend. Furthermore, the response disappeared until the 11th period and a response reappeared (but a negative response) in the 12th to 60th period with an increasing trend. Bank assets will respond positively to bank lending in the three initial periods of shock. After that, the response did not reappear. Bank assets also responded positively to the collection of deposits from the beginning of the shock until the end of the 60th period, with a smooth trend. Bank assets showed a positive response to bank income from the beginning of the shock until the 60th period, with an increasing trend.

Based on the results of the analysis of variance decomposition of model 1, it is known that when the independent variable is GDP growth, in the first period, the diversity of GDP growth is explained by the GDP growth shock itself (100%). This means that the contribution of changes in GDP in influencing

GDP growth itself is 100%. Other variables do not contribute to the first period. In the second period, the diversity of GDP growth is explained by the GDP growth shock itself (99%), which experienced a slight decrease compared to the first period. In the second period, other variables began to contribute to GDP growth, namely bank lending (0.01%), third party funds collection (0.2%), bank income (0.5%), and bank assets (0.13%). Furthermore, in the 3rd to the 10th period, the contribution of GDP growth to GDP growth itself has a downward trend. Meanwhile, the contribution of bank lending, collection of third-party funds, bank income, and bank assets has consistently increased. Based on the results of this analysis, it can be said that bank lending, collection of third-party funds, bank income, and bank assets have an important role in GDP growth.

If the independent variable is bank lending, then the contribution of bank lending to bank lending itself is 99.8% in the first period. In the same period, GDP growth contributed 0.01% to bank lending. The variables for collecting deposits, bank income, and bank assets did not appear to contribute to bank lending in the first period. In the second period, there was a decrease in the contribution of bank lending to bank lending itself (99.6%). In this period all other variables contributed to bank lending; GDP growth of 0.03%, collection of deposits 0.02%, bank income 0.17%, and bank assets 0.23%. In subsequent periods, the contribution of bank lending to bank lending itself has a consistently decreasing trend, while the contribution of other variables to bank lending (GDP growth, collection of deposits, bank income, and bank assets) has a consistent trend of increasing from the previous period. to period. From this analysis it can be concluded that GDP growth, collection of deposits, bank income, and bank assets have a significant contribution to bank lending.

When the independent variable is the collection of TPF, the contribution of the collection of TPF to the collection of TPF itself is 99.9% in the first period. Meanwhile, GDP growth contributed 0.042% and bank lending contributed 0.041% to bank deposits in the first period. Furthermore, in the second period there was a decrease in the contribution of third-party funds to the collection of deposits itself (99.6%) and an increase in the contribution of other variables to the collection of deposits (GDP growth 0.1%, bank lending 0.04%, bank income 0.02% and bank assets 0.2 %). From the 3rd period onwards, the contribution of DPK collection to DPK collection itself formed a consistent declining pattern. Meanwhile, the contribution of GDP growth, lending, bank income, and bank assets to the collection of third-party funds formed a consistently increasing pattern. This proves that GDP growth, lending, bank income, and bank assets have an important role in the collection of deposits.

If the independent variable is bank income, the result is that bank income contributes 84.7% to the bank's own income in the first period. The diversity of bank income is also explained by GDP growth of 13.51%, bank lending of 0.03%, and deposit collection of 1.72%. while assets did not contribute to the bank's income in the first period. Bank assets began to contribute to bank income in the 2nd period (1.27%). In the period from the 2nd to the 10th period, a downward trend is formed in the amount of the contribution of bank income to the bank's income itself and a downward trend is formed in the contribution of GDP growth, bank lending, collection of third-party funds and bank assets to bank income.

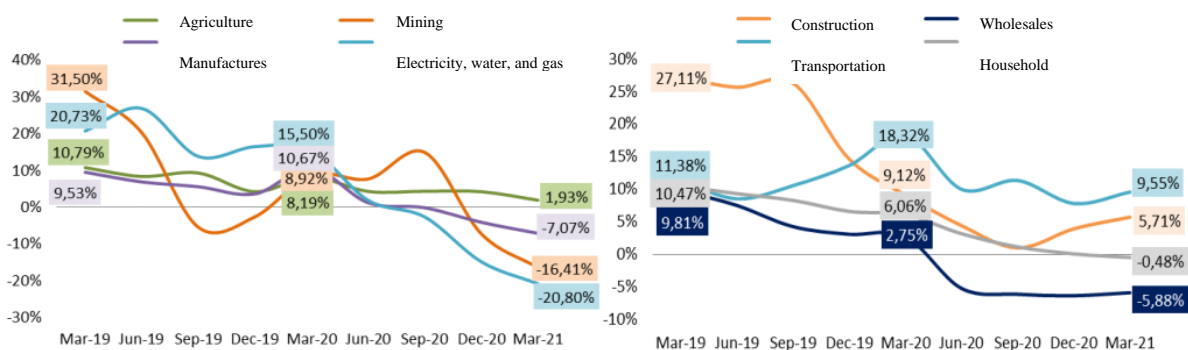


Figure 2. Trends in bank credit growth by sector
 Source: (OJS, 2021)

Furthermore, the independent variable is bank assets. Bank assets contributed to the bank's own assets by 84.1% in the first period. Bank assets were also contributed by other variables, namely GDP growth (3.37%), bank lending (0.04%), third-party funds (6.8%), and bank income (5.7%). In

subsequent periods, an increasing trend was formed in the contribution of bank assets to the bank's own assets. Meanwhile, the contribution of other variables (collection of GDPs, bank lending, collection of third-party funds, and bank income) to bank assets is always fluctuating, neither forming an increasing trend nor a downward trend. Nevertheless, there is a significant contribution to the collection of GDPs, bank lending, collection of third-party funds, and bank income to bank assets from period to period.

This finding is like the results of previous studies which found empirical evidence that the decline in GDP that occurred for two consecutive quarters is an indication of a recession, which will have an impact on many aspects. Among the impacts are a decrease in aggregate demand, a decrease in productivity, to a decrease in the performance of financial institutions (Alpanda, 2021; Amu et al., 2021; Dosi et al., 2019; Peng et al., 2020). In an empirical study, it was concluded that many factors influence GDP growth, including banking performance that supports the national economy (Alpanda, 2021; Flamini et al., 2019; Frait et al., 2015). The results of this study are also in line with the results of previous studies (Alpanda, 2021; Flamini et al., 2019; Frait et al., 2015), where banking performance seen from the indicators of third-party fund collection, lending, and the value of bank assets is very high. sensitive to GDP growth.

Credit distribution to the real sector (especially priority sectors) is the main indicator that drives sustainable economic growth (Flamini et al., 2019). Figure 3 shows the growth trend of banking sector lending to the banking sector. So far, credit disbursement in priority sectors (agriculture, processing industry, and mining) has not been maximized, because the highest credit disbursement is not in priority sectors. Ideally, priority sectors need special attention to accelerate national economic growth.

Model 2

Model 2 examines the interrelationships of GDP (growth), inflation, interest rates, dummy 1 (government policy for the business world since the beginning of the Covid-19 pandemic), and dummy 2 (government policy intended for MSME actors at the beginning of the Covid-19 pandemic). Before analyzing with SVAR, a stationarity test was first performed to see the stationary status of the data on all the variables used. Based on the results of the data stationarity test with Fisher - ADF, empirical evidence was produced that the five variables were stationary at 1st difference with a p-value below 0.05 (p-value < 0.05).

The next stage is the stability test of the model, which refers to the modulus value in the AR Roots table (roots of characteristic). The test results conclude that the model is stable at a maximum lag of 8. This is evidenced by the AR Roots value and the modulus is below 1, when using lag 8. After the stability test, the next step is to identify the VAR model using the values of AIC, SIC, FPE, and HQ with the smallest value and LR with the largest value. The test results with EVIEWS 10 show that the optimum lag = 8 (most asterisks are at lag 8), so the model to be used is VAR (8). This means that these variables influence each other not only in the current period (t), but these variables influence each other up to the previous 8 periods (t-8).

The next step is to test the feasibility of the model. This is important to do to determine the feasibility or suitability of the model when used for forecasting (white noise). This test is done with Portmanteau Autocorrelation. With a lag of 24, the p-value of the Q-statistic is above 0.05 which indicates that there is no residual autocorrelation in the model. Continue to the formal white test to determine the homogeneity of the residuals in the model. The results of the joint test conclude that the residuals are homogeneous, including the residual crosses between variables. This is evidenced by the p-value (joint) exceeding 0.05.

Furthermore, the parameter forecasting with the impulse response function is carried out with the results as shown in Figure 4. The GDP growth of banks seems to respond to GDP growth itself in a fluctuating manner since the beginning of the shock. Starting from a positive response followed by a downward trend until the peak of the decline occurred in the 25th period (response of -0.025), then slowly increased and in the 44th period has shown a positive response with a smooth trend until the 60th period. GDP growth responds to inflation in a fluctuating manner starting from the beginning of the shock. The responses tended to be positive, although the 9th and 10th periods showed negative responses. Furthermore, a positive response was seen with an upward trend to its peak in the 27th period (0.59). After that, the response again decreased to a negative direction. Furthermore, GDP growth

responds to fluctuating interest rates. The beginning of the shock showed a negative response that was inconsistent with the peak of the negative response in the 21st period (-0.33). After that, the response seemed to gradually increase until in the 40th period the response was positive and consistent until the end of the period.

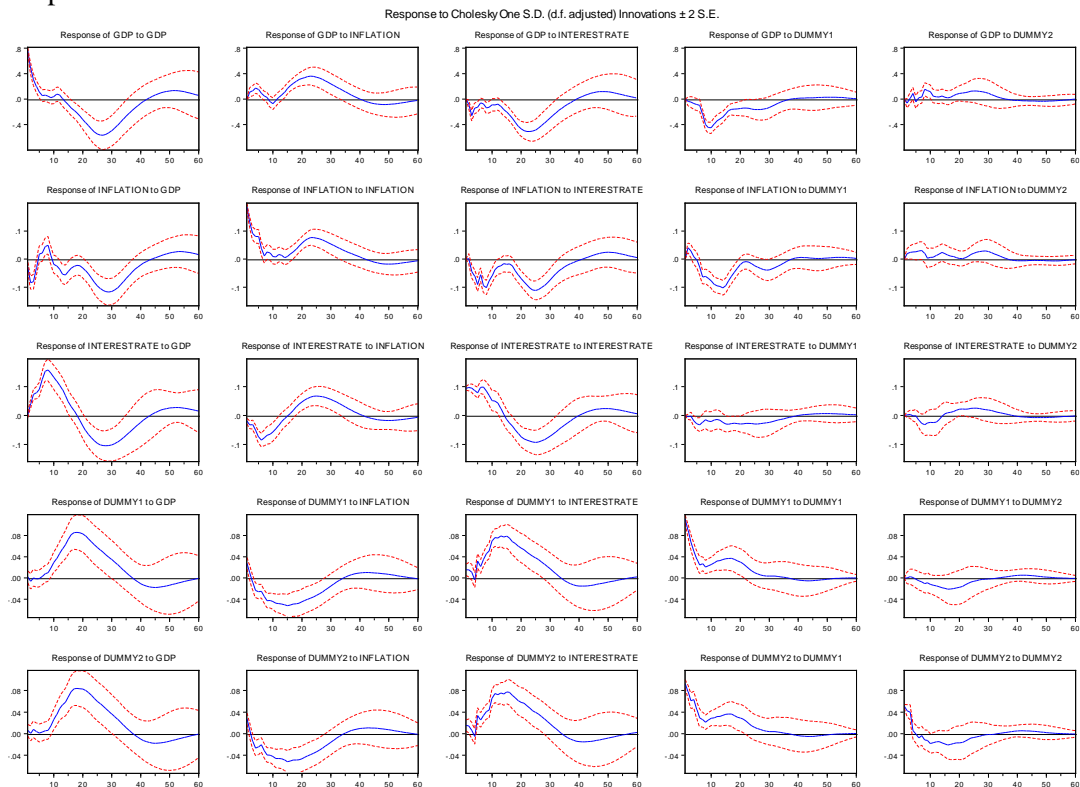


Figure 3. Results of Forecasting Model 2 with Impulse Response

Source: Results of data processing with EViews 10

GDP growth tends to respond negatively to government policies towards the business world, to mitigate the impact of Covid-19 (dummy 1). The peak of the negative response was in the 10th period and then fluctuated (up and down) in the negative range until the 44th period. In the 45th period, the response was positive and consistent until the end of the period. GDP growth responds to government policies towards MSME actors, in the context of overcoming the fluctuating impact of Covid-19 (dummy 2) (positive and negative). GDP growth seems to respond negatively to government policies for MSME actors from the beginning of the period to the 5th period. Then followed by positive and negative responses alternately and inconsistently until the end of the period.

Inflation responds to GDP growth significantly and fluctuates from negative to positive. At the start of the shock, inflation responded negatively to GDP growth in the 5th period. This is followed by a positive response over a period and returns to a negative response in the long term. Like the response to GDP growth, inflation responds to interest rates in the same pattern. This means that the response tends to be negative and fluctuating. Furthermore, inflation responds to government policies related to dealing with the effects of Covid-19 for the business world, which is significant and volatile, and tends to have a negative response. This is because the positive response has only been seen in the 49th period. If it is related to government policies for MSME actors, inflation also responds significantly and fluctuates but tends towards a positive response. Negative responses are seen in the 21st period and 48th period until the end of the period.

Interest rates responded positively to GDP growth since the beginning of the shock until the 16th period. Furthermore, there was a negative response until the 51st period and again a positive response from the 52nd period until the end of the period consistently. On the other hand, interest rates responded negatively to inflation from the start of the shock until the 17th period. Next there was a positive response until the 45th period and followed by a negative response with a downward trend until the end of the period. Interest rates responded negatively to government policies for the business world issued at the

beginning of the Covid-19 pandemic. Negative responses are seen until the 7th period. Then followed by a positive response until the 18th period and a negative response again until the 49th period. The positive response was seen again in the 50th period with an upward trend until the end of the period. This pattern is inversely related to the relationship between interest rates and government policies for MSME actors, whose pattern is no response, negative, positive, and negative again. Interest rates do not respond to government policies for MSME actors from the beginning of the period to the 5th period.

The government's policy for the business world that was issued shortly after the outbreak of the Covid-19 pandemic showed a negative response to GDP growth since the shock until the 7th period. In the 8th period, the response began to be positive with an uptrend with a peak in the 16th period, then the downward trend continued until the 37th period a negative response emerged. The government's policy for MSME players showed a positive response to inflation during the first two periods after the shock. However, after that it was followed by a significantly negative response in the long term until the 36th period. Furthermore, there is a positive response with a normal curve pattern until the end of the period.

Based on the results of the analysis with model 2, it can be said that government policies, which are devoted to the business world and MSME actors in the context of overcoming the impact of Covid-19, have not been effective. The implementation of these policies will ideally support the stability of the real sector to increase economic growth. The results of the analysis of model 2 and the facts on the ground show that the policy has no impact on increasing economic growth, because there has been negative economic growth in recent periods. This proves the ineffectiveness of the policy, so further evaluation is necessary.

Furthermore, analysis of variance decomposition in model 2. When GDP growth is positioned as an independent variable, then in the first period GDP growth is fully explained by GDP growth itself (100%), without any contribution to other variables (inflation, interest rates, dummy 1 (government policy for the business world) and dummy 2 (government policy for MSME actors)). In the second period, the contribution of GDP growth to GDP growth itself was 98.7% and other variables began to contribute to GDP growth. Inflation contributed 0.2%, interest rates contributed 0.4%, government policies for the business world contributed 0.02%, and government policies for MSME players contributed 0.6% to GDP growth. In subsequent periods, the magnitude of the contribution of GDP growth to GDP growth itself formed a consistent downward trend. Meanwhile, other factors (inflation, interest rates, government policies for the business world, and government policies for MSME players) show a consistently increasing trend of their contribution to GDP growth, except for interest rates whose contribution to GDP growth declined in the 9th and 10th period. From the results of this analysis, it can be concluded that inflation factors, interest rates, government policies for the business world, and government policies for MSME actors have a significant contribution to GDP growth.

Furthermore, inflation is used as an independent variable. The contribution of inflation to inflation itself was 97.3% in the first period. In the same period, GDP growth contributed 2.73% to inflation, while interest rates, government policies for the business world, and government policies for MSMEs did not appear to contribute. In the second period, inflation contributed 89.4% to inflation itself, and was contributed by other factors (interest rate 0.03%, GDP growth 8.41%, government policy for business 1.61%, and government policy for MSME players 0.55%). Since the third period, the contribution of inflation to inflation itself has decreased consistently from period to period. Meanwhile, the other four factors contributed to inflation with a consistent upward trend from period to period, except for GDP growth, where its contribution to inflation declined in the 9th and 10th periods. The results of this analysis indicate a significant contribution from GDP growth, interest rates, government policies for the business world, and government policies for MSME actors to inflation.

When the interest rate is placed as the independent variable, it is known that the contribution of the interest rate is 95.6% to the interest rate itself, in the first period. Furthermore, this period also saw the contribution of GDP growth of 0.92% and the contribution of inflation of 3.47% to interest rates. In this period, government policies for the business world and government policies for MSME actors have not contributed to interest rates. In the second period, the interest rate contributed 83.25% to the interest rate itself. The interest rate in this period was also contributed by other factors, namely GDP growth (10.15%), inflation (5.04%), government policy for the business world (1.5%), government policy for

MSME players (0.5%). In subsequent periods, the contribution of the interest rate to the interest rate itself decreased consistently from period to period. Meanwhile, GDP growth, inflation, government policies for the business world, and government policies for MSMEs have consistently contributed to interest rates with an upward trend. From the results of this analysis, it can be said that GDP growth, inflation, government policies for the business world, and government policies for MSME actors have an important role in interest rates.

Next, dummy 1 (government policy for the business world) is positioned as the independent variable. Government policies for the business world contributed 91.40% to government policies for the business world itself, in the first period. Government policies for the business world were also contributed by other factors, namely GDP growth (0.7%), inflation (6.65%), and interest rates (1.87%). Government policies for MSME actors began to contribute to government policies for the business world starting in the 2nd period. Starting from the 2nd period, the contribution of government policies for the business world to government policies for the business world itself has consistently decreased from period to period. Meanwhile, other factors, namely GDP growth, inflation, interest rates, and government policies for MSME actors have consistently contributed to government policies for the business world with an increasing trend. From the results of this analysis, it can be concluded that GDP growth, inflation, interest rates, and government policies for MSME actors have a strategic role in government policies for the business world.

The last is when the government's policy for MSME actors becomes the independent variable. In the first period, government policies for MSME actors contributed 23.27% to government policies for MSME actors. The amount of this contribution is relatively small. Government policies for MSME actors were also contributed by other factors since the beginning of the period; GDP growth contributed 0.07%, inflation contributed 8.75%, interest rates contributed 2.4%, and government policies for the business world contributed 65.58%. In the 2nd period and subsequent periods, the contribution of government policies for MSME actors to government policies for MSME actors formed a consistent declining pattern from period to period. Meanwhile, GDP growth, inflation, interest rates, and government policies for the business world have consistently contributed to government policies for MSME players with an increasing trend from period to period. This analysis shows that government policies for the business world are the most sensitive in responding to government policies for MSME actors. Nevertheless, GDP growth, interest rates, and inflation still play an important role in government policies for MSME actors.

Economic growth is very sensitive to macroeconomic conditions especially in conditions of a prolonged pandemic. Inflation and interest rates are factors that are very quickly responded to by economic growth (Amu et al., 2021). Each country has its own policies to deal with all the impacts of the Covid-19 pandemic, which triggers an economic shock. The countries of Austria, Portugal, Sweden, France, Italy, and Spain have implemented a lockdown policy for a certain duration, to anticipate the spread of Covid-19. The results of an empirical study state that a long lockdown will have a negative impact on economic growth, while a lockdown with a short duration of time will not have a significant impact on economic growth (Coccia, 2021). In the context of economic recovery during a pandemic, the Indonesian government has implemented quite several policies, including policies for the business world and MSME players. The policy was launched to encourage economic growth. But the implementation of these policies is not able to encourage economic growth.

Panel Data Regression Analysis with Fixed Effect Model

Table 1 is the result of regression analysis with the dependent variable in the form of economic growth (GDP). With an error tolerance of 5%, bank lending has a positive effect on GDP growth. Bank lending to the real sector will encourage the development and progress of the real sector, which will have an impact on increasing GDP growth. This finding is like the results of previous studies which stated that high productive lending will be followed by high economic growth (Alpanda, 2021; Bayar et al., 2020; Flamini et al., 2019).

The collection of TPF has a positive impact on GDP growth. The high collection of deposits has great potential to increase bank lending, so that high productive lending will support economic growth. This finding supports the findings of previous studies which state that there is a positive correlation between bank deposits and economic growth (Alpanda, 2021; Flamini et al., 2019; Frait et al., 2015). Furthermore, macroeconomic factors in the form of inflation and interest rates have a positive

effect on economic growth. This is similar to the findings of previous studies which concluded that inflation and interest rates are the most sensitive factors to which GDP growth responds (Amu et al., 2021). The next finding is that there is no influence between dummy 1 and dummy 2, which represents government policies for businesses and SMEs, on GDP growth. Government policies for the business world and MSME actors were issued at the beginning of the Covid-19 pandemic with the aim of providing stimulus to the real sector, so that it remains dynamic during the pandemic. This finding indicates the ineffectiveness of government policies for the business world and SMEs to encourage national economic growth.

Table 1. Regression Coefficient (Dependent Variable: GDP Growth)

Variable	Coefficient	Probability
Constant	-4.31	0.0000
Credit	0.57**	0.0275
TPF	2.92**	0.0086
Income	1.06***	0.0000
Assets	2.26*	0.0676
Inflation	1.48***	0.0000
Interest Rate	1.49***	0.0000
Dummy1	-1.21	0.1362
Dummy2	-1.266562	0.1233
R ²	0.77	
Prob (F-stat)	0.00	

Source: Results of data processing with EViews 10

Description: *** significant at 99% level; ** significant at 95% level, * significant at 10% level

This research data is banking data in Indonesia in aggregate, without classifying Islamic banks and conventional banks. In essence, the two types of banks have different business concepts in terms of operational guidelines and practices. Not only conventional banks, Islamic banks also target MSMEs as a strategy to support real sector growth. Without the concept of interest, Islamic banks tend to be more suitable as a means of productive financing because they refer to profit sharing or revenue sharing. The concept of profit sharing or revenue sharing is more flexible because it refers to real results, not predetermined interest.

Based on studies conducted on Islamic banking and conventional banking in Turkey, it was found that Islamic banking made a fairly good contribution to the development of the real sector. When compared with conventional banks, the contribution of conventional banks to the growth of the rial sector is greater. This is because Islamic banks are still in the development stage, unlike established conventional banks (Kazak et al., 2023).

A study conducted on 12 Islamic banks and 21 conventional banks in six OIC countries: Pakistan, Bangladesh, Indonesia, Malaysia, United Arab Emirates and Turkey in 2016-2022 measured the performance of Islamic banks and conventional banks. The study found that before Covid-19, Islamic banks performed well due to lower withdrawals and better Calmar ratios compared to conventional banks. During the Covid-19 pandemic, conventional banks performed better than conventional banks. A study conducted on 12 Islamic banks and 21 conventional banks in six OIC countries: Pakistan, Bangladesh, Indonesia, Malaysia, United Arab Emirates and Turkey in 2016-2022 measured the performance of Islamic banks and conventional banks. The study found that before Covid-19, Islamic banks performed well due to lower withdrawals and better Calmar ratios compared to conventional banks. During the Covid-19 pandemic, conventional banks performed better than conventional banks (Ghouse et al., 2022).

Conclusion and Recommendation

The conclusion of this study is that government policies for the business world and MSME actors in the context of overcoming the impact of Covid-19 have not been effective. The government's policy for the

business world and MSME players is aimed at providing stimulus to sectors that had stalled due to the Covid-19 pandemic. The hope is that economic conditions will remain stable even during the Covid-19 pandemic. The results of the analysis show that the implementation of the two policies has not been optimal in encouraging national economic growth. The response function graph shows the negative response of GDP growth to these policies. This finding further strengthens the field that shows negative economic growth in the last few quarters.

Furthermore, from the analysis of variance decomposition, it can be concluded that the performance of bank financial institutions also contributes to national economic growth. Bank lending, collection of bank deposits, bank income, and bank assets are quite sensitive in responding to GDP growth, as a proxy for national economic growth. On the other hand, the inflation rate, interest rates, government policies for the business world, and government policies for MSMEs are seen to contribute to GDP growth.

Thus, it is necessary to harmonize the movement of banking with economic growth to accelerate the national economic recovery. Instability in the banking sector will jeopardize financial stability and have long-term adverse consequences. This is because there is a causal relationship between the stability indicators of the banking sector and national economic growth.

This research analyzes banking credit data in aggregate, it has not yet mapped credit distribution based on economic sectors, so that further research can use data on banking credit distribution based on economic sectors. This is intended to see the contribution of each economic sector to national economic growth.

References

- Aiyar, S., Bergthaler, W., Garrido, J. M., Ilyina, A., Jobst, A., Kang, K., Kovtun, D., Liu, Y., Monaghan, D., & Moretti, M. (2015). *A Strategy for Resolving Europe's Problem Loans*. IMF.
- Alessandri, P., Bologna, P., Fiori, R., & Sette, E. (2015). A note on the implementation of the countercyclical capital buffer in Italy. *Questioni Di Economia e Finanza (Occasional Papers)*, 278.
- Alpanda, S. (2021). Regime-Switching Productivity Growth and Bayesian Learning in Real Business Cycles. *Macroeconomic Dynamics*, 25(2).
- Amu, B., Osabuohien, E. S., Alege, P. O., & Ejemeyovwi, J. O. (2021). Impact of Real Shocks on Business Cycles in selected Sub-Saharan African Countries. *Cogent Business & Management*, 8(1).
- Ari, A., Chen, S., & Ratnovski, L. (2019). The Dynamics of Non-Performing Loans during Banking Crises: A New Database. In *Working Paper No. 19/272*.
- Ari, A., Chen, S., & Ratnovski, L. (2020). COVID-19 and non-performing loans: lessons from past crises. *Res. Bull.*, 71, 1–7.
- Bayar, Y., Borozan, D., & Gavriletea, M. D. (2020). Banking sector stability and economic growth in post-transition European Union countries. *International Journal Finance Economics*.
- Bernanke, B. S. (1983). Non-monetary effects of the financial crisis in the propagation of the Great Depression (No. w1054). *National Bureau of Economic Research*.
- Bernanke, Ben, and Mark Gertler, "Agency Costs, Net Worth and Business Fluctuations," *American Economic Review*, March 1989, 79, 14–31
- Buch, C., & Dages, B. G. (2018). Structural changes in banking after the crisis. *Bank for International Settlements*.
- Coccia, M. (2021). The relation between length of lockdown, numbers of infected people and deaths of Covid-19, and economic growth of countries: Lessons learned to cope with future pandemics similar to Covid-19 and to constrain the deterioration of economic system. In *Science of the Total Environment*.
- Cooper, D. R., & Schindler, P. S. (2013). *Business Research Methods* (12th ed.). McGraw-Hill Education.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design Qualitative, Quantitative, and Mixed Methods* (5th ed.). SAGE Publications.

- Doruk, Ö. T. (2023). Does Islamic banking reduce the risks of COVID-19 for SMEs? Novel evidence for SME financing in the pandemic period for an emerging market. *International Journal of Disaster Risk Reduction*, 91, 103664. <https://doi.org/https://doi.org/10.1016/j.ijdr.2023.103664>
- Dosi, G., Napoletano, M., Roventini, A., & Treibich, T. (2019). Debunking the granular origins of aggregate fluctuations: from real business cycles back to Keynes. *Journal of Evolutionary Economics*, 29(1).
- Drehmann, M., Borio, C., & Tsatsaronis, K. (2011). Anchoring Countercyclical Capital Buffers: The Role of Credit Aggregates. *International Journal of Central Banking*.
- Enders, W. (2015). *Applied econometric time series* (4th ed.). Wiley.
- Flamini, V., Bologna, P., Di Vittorio, F., & Zandvakil, R. (2019). Credit Cycle and Capital Buffers in Central America, Panama, and the Dominican Republic. In *IMF Working Papers* (Vol. 19, Issue 39). <https://doi.org/10.5089/9781484397992.001>
- Frait, J., Hájek, J., & Plašil, M. (2015). Detecting credit cycle and setting countercyclical capital buffer in the Czech Republic. *Czech National Bank and University of Economics Prague*, 16, 1–10.
- Fuente, A. de la. (2021). The economic consequences of Covid in Spain and how to deal with them *Applied Economic Analysis*.
- Ghouse, G., Ejaz, N., Bhatti, M. I., & Aslam, A. (2022). Performance of islamic vs conventional banks in OIC countries: Resilience and recovery during Covid-19. *Borsa Istanbul Review*, 22, S60–S78. <https://doi.org/https://doi.org/10.1016/j.bir.2022.11.020>
- Greene, W. H. (2002). *Econometric Analysis* (5th ed.). Pearson Education Limited.
- Gujarati, D. N. (2004). *Basic Econometrics* (4th ed.). The McGraw–Hill Companies.
- IMF. (2020). *IMF Policy Tracker: Policy Responses to COVID-19*.
- Inegbedion, H. (2021). Impact of Covid-19 on economic growth in Nigeria: opinions and attitudes. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2021.e06943>
- Kalemli-Özcan, Şebnem, Laeven, L., & Moreno, D. (2018). *Debt Overhang, Rollover Risk, and Corporate Investment: Evidence from the European Crisis*.
- Kazak, H., Uluyol, B., Akcan, A. T., & İyibildiren, M. (2023). The impacts of conventional and Islamic banking sectors on real sector growth: Evidence from time-varying causality analysis for Türkiye. *Borsa Istanbul Review*, 23, S15–S29. <https://doi.org/https://doi.org/10.1016/j.bir.2023.09.004>
- Kemenkeu. (2020). *Kemenkeu Tanggap Covid-19: Informasi Terkini*. <https://www.kemenkeu.go.id/covid19>
- Leeper, E. M., Sims, C. A., Zha, T., Hall, R. E., & Bernanke, B. S. (1996). What does monetary policy do?. *Brookings papers on economic activity*, 1996(2), 1-78.
- Lunsford, K. G. (2023). Business Cycles and Low-Frequency Fluctuations in the US Unemployment Rate. *Working Paper Series (Federal Reserve Bank of Cleveland)*, 1–43. <https://doi.org/10.26509/frbc-wp-202319>
- Makin, A. J., & Layton, A. (2021). The global fiscal response to COVID-19: Risks and repercussions Economic Analysis and Policy. *Economic Analysis and Policy*, 69. <https://doi.org/https://doi.org/10.1016/j.eap.2020.12.016>
- OECD. (2020). *OECD Economic Outlook*.
- OJS. (2020a). *Laporan Profil Industri Perbankan Triwulan I, 2020*.
- OJS. (2020b). *Laporan Profil Industri Perbankan Triwulan II, 2020*.
- OJS. (2020c). *Laporan Profil Industri Perbankan Triwulan III, 2020*.
- OJS. (2020d). *Laporan Profil Industri Perbankan Triwulan IV, 2020*.
- OJS. (2021). *Laporan Profil Industri Perbankan Triwulan I, 2021*.
- Pătruți, A. (2023). Keynes and Hayek: some common elements in business cycle theory. *Keynes e Hayek: Alguns Elementos Comuns Na Teoria Do Ciclo de Negócios.*, 43(1), 48–66. <https://doi.org/10.1590/0101-31572023-3375>
- Peng, D., Shi, K., Xu, J., & Zhou, Y. (2020). SOE and Chinese Real Business Cycle. *Annals of Economics & Finance*, 21(2).
- Ratnovski, L. (2020). Covid-19 and non-performing loans: lessons from past crises. *Research Bulletin, European Central Bank*, 71.

- Rizwan, M. S., Ahmad, G., & Ashraf, D. (2020). Systemic risk: The impact of COVID-19. *Finance Research Letters, July*. <https://doi.org/10.1016/j.frl.2020.101682>
- Rizwan, M. S., Ahmad, G., & Ashraf, D. (2022). Systemic risk, Islamic banks, and the COVID-19 pandemic: An empirical investigation. *Emerging Markets Review, 51*, 100890. <https://doi.org/https://doi.org/10.1016/j.ememar.2022.100890>
- SPGlobal. (2020). *How Covid-19 Is Affecting Bank Ratings, June 2020 Update S&P global rating*.
- Sun, W., & Yiu, M. S. (2023). Financial conditions and the well-being of the real estate sector—A bottom-up default analysis on five ASEAN economies. *Contemporary Economic Policy, 41*(1), 41–60. <https://doi.org/10.1111/coep.12543>
- Wang, Q., & Zhang, F. (2021). What does the China's economic recovery after COVID-19 pandemic mean for the economic growth and energy consumption of other countries? *Journal of Cleaner Production, 295*.
- Wielen, W. van der, & Barrios, S. (2021). Economic sentiment during the COVID pandemic: Evidence from search behaviour in the EU. *Journal of Economics and Business*. <https://doi.org/https://doi.org/10.1016/j.jeconbus.2020.105970>
- WorldBank. (2020). Covid-19 and Non-Performing Loan Resolution in the Europe and Central Asia region. *Lessons Learned from the Global Financial Crisis for the Pandemic*.