www.birci-journal.com/index.php/birci
Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Humanities and Social Sciences
ISSN 2615-3076 Online)
ISSN 2615-1715 (Print)
Budapest Institute

Impact of Covid-19 on Macroeconomics in Indonesia

Zet Ena[1], I Gusti Ngurah Hari Saputra[2]
[1,2]Universitas Artha Wacana Christian, Indonesia
igustisaputra16@gmail.com

Abstract

This study aims to determine the impact of the Covid 19 Pandemic on the development of macroeconomics in Indonesia. In this paper, the researcher uses secondary data from the Global Trade Analysis Project (GTAP) version 8 and literature studies such as books and various books journals both from within and outside the country are carried out to help researchers in studying further research material. Data collection techniques are listening and recording important information in conducting data analysis by means of data reduction, data display and conclusion drawing so as to get an overview of the conclusions regarding the literature study to be developed in this research. The Global Trade Analysis Project basically uses various equations in the form of percentage changes that are able to capture changes in micro and macroeconomic variables simultaneously. Economic conditions can be seen from the macroeconomic side such as GDP, welfare, and investment and can also be seen by sector based on output commodities and employment.

Keywords
covid-19; macroeconomics

I. Introduction

A pandemic is something that is very detrimental to the world, cases pandemics that have occurred in previous years such as influenza in 1918, 1957, and 1968/9, SARS in 2003, H5N1 in 2005, and H1N1 in 2009 caused a lot of harm to mankind both losses due to loss of life and decline in world economic growth (Smith, Keogh-brown, Barnett, & Tait, 2004; Smith, Keogh-brown, & Barnett, 2011)The pandemic has lost many lives and harmed movementeconomy in the affected countries (Richard, Smith, Edmunds, & Beutels, 2010; Verikios et al., 2012). The decline in various aspects of the economy due to the pandemic one example such as a decline in the level of GDP, investment, sector output, and employment (Arndt & Lewis, 2001; May et al., 2021; Smith & Keogh-brown, 2013). The pandemic continues to change over time and at the end of it, a new pandemic reappeared, namely SARS-Cov-2 or usualabbreviated as COVID-19. The outbreak of this virus has an impact of a nation and Globally (Ningrum et al, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020). Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020).

The COVID-19 pandemic was first discovered in Wuhan Province, China in the end of 2019 which led to spread in various countries around the world (Cui et al., 2021). The spread of the COVID-19 virus by transmission from people to people causes this virus to grow rapidly and has already spread wide all over the world (Malliet, Reyns, Landa, & Hamdi, 2020). Indonesia is one of the countries that is not spared from this virus outbreak, the spread of the virus has become a national issue since the emergence of the first human

DOI: *https://doi.org/10.33258/birci.v5i3.6414*

Budapest International Research and Critics Institute-Journal (BIRCI-Journal)
Volume 5, No 3, August 2022, Page: 23920-23928
e-ISSN: 2615-3076 (Online), p-ISSN: 2615-1715 (Print)
www.bircu-journal.com/index.php/birci
email: birci.journal@gmail.com

victims in Indonesia Depok in March 2020 and the COVID-19 virus is still a disaster until now this. Committee for Handling COVID-19 and National Economic Recovery in Indonesia, recorded that so far there have been 1,379,662 cases with the number of cases died and recovered were 37,266 and 1,194,656.

Prediction of slowing economic growth issued by Asian Development Outlook (ADO) in 2020 states that in Indonesia there will be experienced a contraction for the first time since the financial crisis in 1997 until 1998. The predicted contraction is a slowdown in economic growth that is below 5%. This decrease could be due to one of the reasons: household consumption declines in the first half of 2020. Asian Development Outlook2020 further explains the decline in consumption households will continue in view of the social restrictions that. This is done to prevent the virus from spreading more widely. The decline in household consumption will also have an impact on Indonesia's GDP which is expected to decline by -0.4%. This figure is below the assumption of the 2020 State Budget which reaches 5.3%. Household consumption experienced a significant decrease from 3.22% to 1.60% (Sina, 2020).

The analytical tool used for this research is GTAP or ordinary. The so-called Global Trade Analysis Project basically uses various equations in the form of a percentage change that is able to capture changes in micro and macroeconomic variables simultaneously (Porsse, Carvalho, & Vale, 2020). This analysis assumes all markets are in perfect competition and no household can influence the market. The demand and supply in each economic agent are derived from the optimization of each production and consumption function activities (Oktaviani & Eka, 2017). Research that analyzes the impact of a pandemic in a country by using the GTAP analysis tool has been done before.

The impact of each policy simulation on macroeconomic performance reflected in the variables that contribute to such as GDP, welfare, and investment (Octavian& Eka, 2017). Research that generally seen in terms of GDP according to (Mabugu et al., 2020) the existence of an epidemic COVID-19 in Ethiopia causes GDP decline to 8.7% this result in line with research (Zhang, Chen, & Fan, 2020) showing China experienced a decline in GDP by 6.8%.

II. Review of Literature

2.1 Economic Growth

Economic growth can be defined as the development of activities in economy that causes the goods and services produced in society to increase. Macroeconomic problems can be viewed as macroeconomic problems in the long term (Sadono, 2008). To measure the magnitude of economic growth in a country/region, an important indicator can be used, namely the value of Gross Domestic Product (GDP) or the value of Gross Regional Domestic Product. Gross Domestic Product (GDP) or Gross Regional Domestic Product (GRDP) is the value of the production of goods and services created in an economy within one year.

Measurement of GDP or GRDP can be interpreted through three approaches, namely by production method, income and expense method. This can be explained, among others:
1. According to the Production Approach. GDP or GRDP is the sum of the final values of goods and services produced by various production units in the territory of a country within a period of one year. In calculate GDP or GRDP with the calculated production approach is the value of production additional value added or created. In this way, it can be

avoided double counting. 2. According to the Income Approach. GDP or GRDP is the amount of remuneration received by the production factors that participate in the production process in a country in a country certain period of time. The remuneration in question is salary and wages, land rent, capital interest and fees profit before direct tax. 3. According to the Expenditure Approach. GDP or GRDP are all components of expenditure made by households in the form of Consumption (C), companies in the form of Investment (I), Government (G), and foreign trade in the form of Net Exports (XM) are usually within one year.

2.2 Consumption

Consumption is spending on goods and services by households' ladder with the aim of meeting the needs of the person making the expenditure. People's spending on food, clothing and other necessities, classified as spending or consumption. Goods that have been produced to be used by the community to meet their needs are called consumer goods. (Khairani, 2009)

2.3 Inflation

Inflation can be expressed as a general increase in prices, which originates from a disturbance in the balance between the flow of goods and the flow of money. The inflation rate is calculated by the Central Agency Statistics of the percentage change in the Consumer Price Index (CPI), at one point in time compared with the previous CPI. Inflation occurs when aggregate output exceeds the capacity economy to produce goods and services. (Sadono, 2008)

2.4 Investation

Investment (investment) can be interpreted as spending or spending on investors or companies to buy capital goods and production equipment to increase the ability to produce goods and services available in the economy. This increase in the amount of capital goods allows the economy to produce more goods and services in the future. (Sadono, 2008). According to Smith, Investments are made because the owners of capital expect profits, and hope for the future profits depend on today's investment climate and on real profits. Investation is a positive net addition of capital goods. Investments can be distinguished into two types, namely real investment and financial investment. What is meant by real investment is investment in durable goods (capital goods) that will be used in the production process. Meanwhile, financial investment is investment in letters valuable, for example the purchase of shares, bonds, and other debt proof (Hellen, 2017)

2.5 Government policies

There are two policies that are usually taken by the government in dealing with problems economy, namely Fiscal Policy and Monetary Policy. Fiscal Policy is steps government to make changes in the tax system or in its spending with a view to overcoming existing economic problems (Sadono, 2008), while monetary policy is a policy made by the central bank (Bank Indonesia), so that money stability can be maintained.

III. Research Method

This study aims to determine the impact of the COVID-19 pandemic on macroeconomic developments in Indonesia and the policy response taken. In this writing, the researcher using library research, that is, in the data collection process, there is no need to dive into the field directly but take various reference sources that support this research. This research is a qualitative research type. The data collection technique is listening as well as record important information in conducting data analysis by means of data reduction, display data and drawing conclusions so as to get an overview of conclusions regarding the study literature to be developed in this study.

IV. Result and Discussion

During the first three months (first quarter) from January to March 2020, the Covid 19 virus spread very quickly in Indonesia and had a considerable impact great for economic activities in Indonesia.Inventory Change is the largest negative contributor to growth with a value of -0.33 percent, followed by service exports (-0.32) and consumption of LNPRT (Non Profit Institutions serving Households) (-0.05). This matter shows that the pandemic has suppressed activity in the service sector and industrial production processing. The occurrence of positive economic growth in Indonesia is caused by the occurrence of improvement in several business sectors with quite high growth in the Services sector. Finance and Insurance by 10.67 percent, followed by the Health Services and Social Activities sector with a value of 10.39 percent and Information and Communication with a growth value of 9.81 percent. The call for PSBB (Large-Scale Social Restrictions) and other physical distancing calls made the economy almost stop. Number of cases Positive Covid 19 in Indonesia as of June 21, 2020 is 45,891 people, on the other hand there are many In Indonesia, 18,404 people have recovered from this virus and 2,465 people have died.

4.1 Economic growth in Indonesia

In April 2020, the IMF cut its forecast for global economic growth in 2020 to -3.0% from the previous 3.3% (yoy). Economy of Indonesia, China, India, Philippines and Vietnam projected to continue to grow positively in 2020, with volatile food (VF) inflation reaching 5.04% yoy in April 2020. In April 2020, the Consumer Confidence Index (IKK) declined to 84.8 and retail sales contracted -5.4% yoy in March 2020. Foreign exchange reserves in April increased to $127.9 Billion. The decline in the number of imported goods in the first quarter of 2020 was also slight contributed positively to the growth rate, which was 0.15 percent. In Q1 2020, consumption households are still the main engine of growth, which accounts for 1.56 percent of growth rate of 2.97% (YoY). In addition to household consumption, economic growth in the first quarter of 2020 on an annual basis was also driven by exports of goods (0.45), PMTDB (0.55) and consumption government (0.22). Other sectors continued to grow although slower than the last quarter and the same period last year.

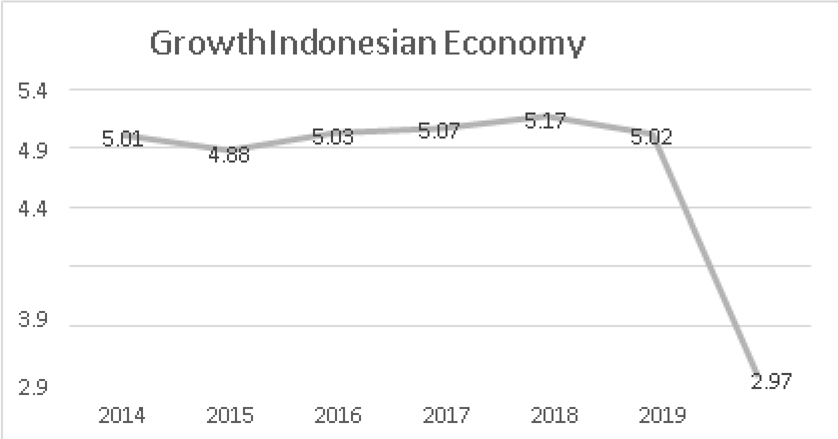

Figure 1*. Indonesia's economic growth*

The curve above shows a significant decline in economic growth in the first quarter of 2020. There is a downward trend in economic growth. In the first quarter of 2020 the economic growth achieved in Indonesia was recorded at 2.97 percent (Year over Year (yoy), this achievement is lower than Bank Indonesia's projection of 4.4 percent. the impact of handling the spread of the Corona virus which has begun to affect all aspects of life and economic activities, both in terms of production, distribution and consumption, investment, foreign trade (exports and imports). Bank Indonesia predicts that the impact of handling the Covid pandemic will be felt in April until June 2020,.

Indonesia's economic growth in the first quarter was one of the highest, better than most other countries. China's economic growth in the first quarter of 2020 was recorded -6.8% (yoy), much lower than the achievement in the fourth quarter of 2019 of 6.0%. In the first quarter of 2020, although there was a positive increase in growth, this figure was lower than the growth rate achieved in the fourth quarter of 2020 with a growth rate of 2.3 percent (yoy). Meanwhile, economic growth in Europe, Singapore and South Korea in the first quarter of 2020 was recorded at -3.3% (yoy), -2.2% (yoy), 1.3% (yoy).

4.2 Private consumption

Nearly 60 percent, the movement of increasing economic activity which is usually contributed by private consumption, also experienced a contraction. Retail sales, both traditional and modern markets, also contracted. Even the decline in the real sector had occurred before the Covid pandemic in Indonesia, which showed a contraction rate of 0.3 percent in January 2020. Tourist travel, both foreign and domestic, also experienced a drastic decline, causing a drop in private consumption. According to BPS data, the number of foreign tourist arrivals decreased by 7.6 percent in January 2020 compared to December 2019. Meanwhile, in the same period, domestic tourists also decreased by 3.1 percent.

The Corona virus has an impact on all sectors, especially tourism and other sectors. The World Bank predicts that Indonesia's economic growth this year will be depressed at the level of 2.1 percent. This is due to the continued spread of Covid-19 both domestically and abroad. Bank Indonesia (BI) has also projected Indonesia's economic growth to be below 5 percent or only around 2.5 percent, which in previous years was able to grow to 5.02 percent. Covid 19 has also had a negative impact on the tourism sector. Minister of Tourism and Creative Economy Wishnutama Kusubandio also said that the loss in the tourism sector due to the Covid pandemic was estimated at Rp. 38, 2 trillion.

4.3 Inflation

The Central Statistics Agency (BPS) during April 2020 recorded inflation of 0.09 percent month to month. The coronavirus pandemic has reduced purchasing power in a number of areas. The price development of various commodities showed a very slight increase. In April there was 0.08 percent inflation, April 2020 inflation was lower than March inflation of 0.09 percent. Inflation in April this month experienced a slowdown from the previous month. The slowdown in inflation from the previous month was clearly the impact of the COVID outbreak in Indonesia. because, if you look at the inflation graph from year to year, especially during the fasting month and Eid, the inflation graph always rises. This inflation is unusual when compared to the previous pattern. When entering the month of Ramadan, inflation increased, but this year it slowed from 0.9 percent in March and 0.08 percent in April.

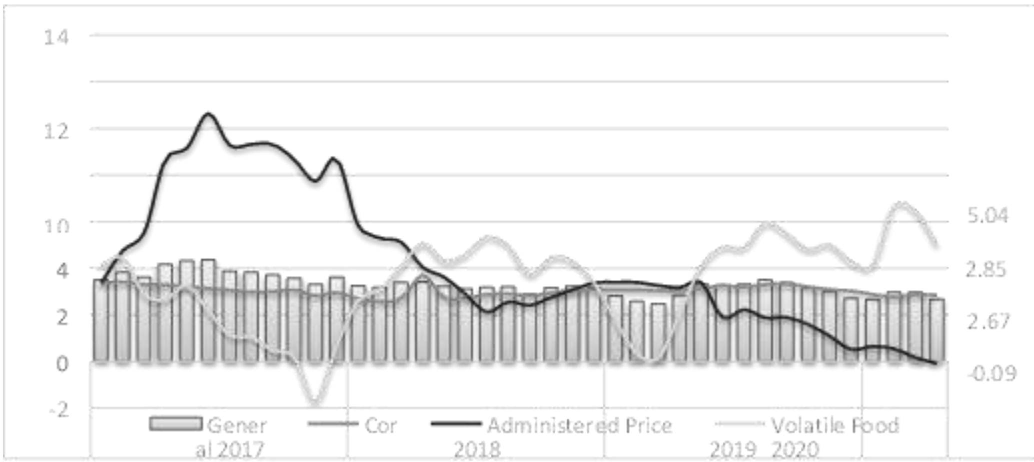

***Figure 2**. Inflation graph*

4.4 Investation

In Q1 2020, investment fulfillment reached Rp. 210.7 trillion or an increase of 8.0% from the same period in 2019 of Rp. 195.1 trillion. The realization of this investment has reached 23.8% of the 2020 investment target of Rp 886.1 trillion. Consists of PMDN of Rp. 112.7 trillion and PMA of Rp. 98.0 trillion. This investment absorbs the Indonesian workforce of 303,085 people.

4.5 Processing industry

Despite experiencing a slowdown due to the COVID-19 pandemic, the manufacturing sector still grew positively. The processing industry is still growing positively in the midst of depressed foreign and domestic demand conditions. Several phenomena that have kept the manufacturing industry growing include: (1) the Food and Beverage Industry still grew by 3.94 percent, despite the decline in exports of food and beverage commodities; (2) Chemical, Pharmaceutical and Traditional Medicine Industries increased by 5.59 percent due to support from an increase in the output of chemical goods and drugs due to demand from abroad so that the output of these goods was produced, and on the other hand there was an increase in demand. medical equipment due to the Covid-19 pandemic.

4.6 Policies taken to stimulate economic activity

The increase in the domestic economy this year was mainly supported by government spending or government spending. In dealing with the Covid pandemic, the government must work hard to sparked various policy packages, both in terms of policies to prevent the spread of the Covid pandemic, as well as policies in terms of increasing economic activity.

Fiscal policy stimulus is also the most important in reducing the negative impact caused by this pandemic on economic activities, especially for business actors and the community who are the most affected.

The first stimulus, namely, 1. Acceleration of Government Expenditures. Speeding up the process of disbursing capital expenditures, accelerating the appointment of state treasury officials, accelerating the implementation of tenders, etc., accelerating the disbursement of social assistance expenditures, transfers to regional and village funds 2. Expansion of the Basic Food Card to increase benefits (Rp 150 thousand / month → Rp 200 thousand / month). It has been carried out by the Ministry of Social Affairs in March 2020. 3. Expansion of the housing interest subsidy target with an additional housing volume of around 175 thousand housing units. Currently in the process of drafting implementing regulations for the Revised DIPA, it is still in the process based on a proposal from the Ministry of PUPR. Contract with Executing Bank is planned for April 2020.

Second Stimulus, namely, 1. Income Tax Relaxation. Article 21 Income Tax Borne by the Government (DTP), exemption from Import Income Tax Article 22, Income Tax Reduction Article 25, VAT refund accelerated 2. Simplification and Acceleration of Export-Import Process. Simplification and reduction of export and import restrictions (manufacturing, food and medical support), acceleration of the export-import process for leading traders, and export-import services through the National Logistics Ecosystem.

The policies taken by the government in an effort to stimulate economic activity in the midst of this Covid pandemic, which are divided into two safety nets, namely::1. The total additional Expenditure and Financing of the 2020 State Budget is Rp. 405.1 Trillion (Social Safety Net), which consists of, Family Hope Program, Basic Food Program, Pre-Employment Card, Labor Intensive Program Discount on Electricity Rates 450 VA and 900 VA, Housing Incentives for MBR, Holiday Allowances, Price Stabilization/Market Operations, Adjustment of K/L Budget 2. State Budget Support : IDR 70.1 T (Economic Safety Net), which consists of: Fiscal Incentives (Elimination of Income Tax Collection & Imported Goods Tax, Reduction of Corporate Tax and Acceleration of VAT Restitution, Non-Fiscal Incentives (Simplification) and Exim Process Acceleration), People's Business Credit Relaxation Policy (KUR), Bank Indonesia (BI) Policy and OJK and Capital Market Policy Packages

The next stimulus is the recovery of the national economy, by: First, the issuance of Perppu 1 of 2020; State Finance Policy (APBN), 1. Deficit relaxation exceeds 3%, but starting in 2023 it will return to a maximum level of 3%, 2. Relaxation is related to inter-organizational, inter-functional, and inter-programme spending allocation/reallocation as well as mandatory spending , 3. Relaxation of allocation/reallocation of Regional Government Expenditures, 4. Loans to LPS, 5. Issuance of SUN and SBSN to be purchased by BI, BUMN, corporate investors and/or retail investors, 6. Use of alternative budget sources including SAL, an education endowment fund, and a fund managed by the Public Service Agency. Second, the following tax policies were issued: 1. The implementation of a gradual reduction in Corporate Income Tax rates 2. Tax incentives in the Capital Market for public ownership 3. Taxation of Electronic Transactions; 4. Extension of tax administration time, 5. Customs facilities in the context of Covid-19. Third, issued a Policy in the Financial Sector, 1. Improved Coordination between KSSK institutions 2. Provide the necessary authority to 4 institutions to prevent a crisis (forward looking) in KSSK container al to issue instruments, BI buys SUN in the primary market, provides loans to LPS and the OJK may request a merger or consolidation of Financial Services Institutions, 4. Regulations on managing foreign exchange flows (LLD) for the population, 5. Increasing public confidence motions but still not causing moral hazard.

V. Conclusion

The Global Trade Analysis Project basically uses various equations in the form of percentage changes that are able to capture changes in micro and macroeconomic variables simultaneously. Economic conditions can be seen from the macroeconomic side such as GDP, welfare, and investment and can also be seen by sector based on output commodities and employment.

References

Analysis Project) in Indonesia Edition 2. Bogor: IPB Approach(No. 417-2016-26331).

Arndt, C., & Lewis, JD (2001). The HIV/AIDS pandemic in South Africa: Sectoral impacts and unemployment Journal of International Development: The journal of the Development studies Association, 13 (4), 427-449.

Bank Indonesia, April (2020), Indonesian Economic and Financial Statistics

Cui, Q., He, L., Liu, Y., Zheng, Y., Wei, W., Yang, B., & Zhou, M. (2021). The impacts of COVID-19 pandemic on China's transport sectors based on the CGE model coupled with a decomposition analysis approach. Transport Policy, 103, 103-115.

Helen, Sri Mintarti, Fitriadi, (2017), Effect of Investment and Labor and Government Expenditure on Economic Growth and Employment Opportunities, INOVASI Journal, Vol 13 No 1 of 2017, Samarinda, UMMUL Indonesia, Ministry of Finance of the Republic of Indonesia

Khairani Siregar, (2009), Analysis of Consumption Determinants of Indonesian Society, Medan, Postgraduate School, University of North Sumatra

Malliet, P., Reyns, F., Landa, G., Hamdi-Cherif, M., & Saussay, A. (2020). Assessing short-term and long-term economic and environmental effects of the COVID-19 crisis in France. Environmental and Resource Economics, 76(4), 867-883.

Ningrum, P. A., et al. (2020). The Potential of Poverty in the City of Palangka Raya: Study SMIs Affected Pandemic Covid 19. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume 3, No 3, Page: 1626-1634

Oktaviani, R. (2006). AI and its Impact on the Indonesian Economy: a CGE

Oktaviani, R., Eka, P. (2017). GTAP (Global Trade . Theory, Model and Application)

Sadono Sukirno, (2008), Macroeconomics: Introductory Theory (Third Edition), 2008, Jakarta, Rajawali Press Press Release, April 17 (2020), Government Alerts to the Impact of the Covid-19 Pandemic on the Economy

Saleh, A., Mujahiddin. (2020). Challenges and Opportunities for Community Empowerment Practices in Indonesia during the Covid-19 Pandemic through Strengthening the Role of Higher Education. Budapest International Research and Critics Institute-Journal (BIRCI-Journal). Volume 3, No 2, Page: 1105-1113.

Sihombing, E. H., Nasib. (2020). The Decision of Choosing Course in the Era of Covid 19 through the Telemarketing Program, Personal Selling and College Image. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Volume 3, No. 4, Page: 2843-2850.

Smith, RD, & Keogh-Brown, MR (2013). Macroeconomic impact of pandemic influenza and associated policies in Thailand, South Africa and Uganda. Influenza and other respiratory viruses, 7.64-71.

Smith, RD, Keogh-Brown, MR, & Barnett, T. (2011). Estimating the economic impact of pandemic influenza: an application of the computable general equilibrium model to the UK. Social science & medicine, 73(2), 235-244.

Smith, RD, Keogh-Brown, MR, Barnett, T., & Tait, J. (2009). The economywide impact of pandemic influenza on the UK: a computable general equilibrium modeling experiment. Bmj, 339.

Zhang, Y., Diao, X., Chen, KZ, Robinson, S., & Fan, S. (2020). Impact of COVID-19 on China's macroeconomy and agri-food system-an economy-wide multiplier model analysis. China Economic Review.