

## THE IMPACT OF COVID-19 ON THE SECTORAL ECONOMY IN INDONESIA

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### Abstract

Covid-19 caused a contractionary economic condition, therefore the policies adopted by the government to restore the economy were expansionary fiscal and monetary policies to increase public consumption to stimulate economic activity. The economic sector that grew the highest during the Covid-19 period was the Human Health and Social Activities sector, the Information and Communication sector, the Water Supply sector; Sewerage, Waste Management and Remediation sector, Financial and Insurance Activities sector, Real Estate Activities sector, Education sector, and Agriculture, Forestry, and Fishing sector. While the economic sectors most affected by Covid-19 are the Transportation and Storage sector, the Accommodation and Food Service Activities sector, the Business Activities sector, the Transportation and Storage sector, the Business Activities sector, and Other Services Activities sector. While the economic sectors that recovered quickly due to the implementation of economic recovery policies were the Mining and Quarrying sector, the Manufacturing sector, the Electricity and Gas sector, the Wholesale and Retail Trade sector; Repair of Motor Vehicles and Motorcycles sector. **Keywords:** economic crisis, Covid-19, economic growth, sectoral growth, government policy.

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**JEL Classification:** E52, E62, E66, O23

### INTRODUCTION

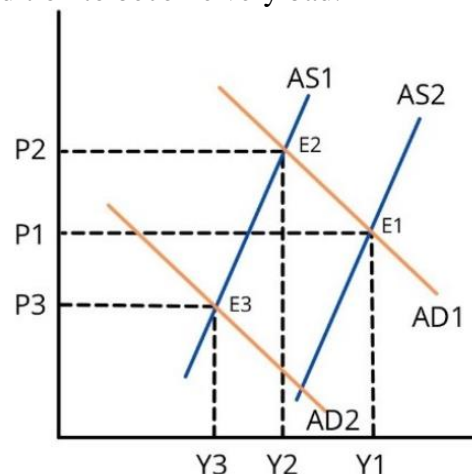
The Covid-19 pandemic has brought about significant transformations in the global economy (Jones *et al.*, 2021). This includes a widespread shift towards remote work, online shopping, and various other activities that have become essential to be conducted from home. Consequently, there has been a substantial rise in internet usage as many tasks now require internet connectivity. The pandemic's impact has been particularly severe on traditional businesses, with numerous large enterprises being forced to close down and face bankruptcy. Simultaneously, there has been a surge in demand for healthcare facilities and services, reflecting the urgent need to address public health challenges. These combined factors have contributed to a sharp contraction in economic activity, leading to a worldwide economic recession.

Great recessions have occurred several times in the world, including Indonesia. Covid-19 is one of the causes of the great recession. The recession had

a major impact on decreasing the number of workers working (Xu, 2022). The reduced use of labor will certainly have an impact on the amount of output that can be produced in an economy. The spread of Covid-19 originates in China, where based on survey results in China, the sectors most affected by Covid-19 are the industrial sector and the service sector (Segal and Gerstel, 2020).

Covid-19 has caused Indonesia to experience two economic impacts simultaneously, namely a supply shock and a demand shock as shown in Figure 1. The supply shock occurred due to the implementation of the social restriction policy which increased unemployment. The decrease in the need for labor causes a shift in the AS1 curve to AS2 to the left. Meanwhile, the demand shock occurred due to the unclear actions of the Government in providing economic policies that relieved affected communities, causing a decrease in people's income and purchasing power. As a result, investors are reluctant to invest until conditions improve.

This condition can be seen from the change in the AD1 to AD2 curve, which illustrates a decrease in output from Y1 to Y2 and ends at Y3. The more to the left of the curve indicates a decrease in demand and a decrease in the country's economic surplus. Thus, it can be concluded that the Covid-19 pandemic has caused Indonesia's economic condition to become very bad.



**Figure 1. Supply Shocks**

Source: Hayati (2022)

The emergence of the Covid-19 pandemic in early 2020 shook the foundations of societies and economies worldwide. Beyond the immediate health crisis, the virus unleashed a profound and far-reaching economic impact, redefining the dynamics of global Gross Domestic Product (GDP). The widespread transmission of the virus prompted governments to implement stringent measures, such as lockdowns and travel restrictions, to curb its spread. These measures, while vital for public health, also resulted in the disruption of economic activities across multiple sectors, leading to unprecedented challenges for businesses, industries, and governments alike.

By 2021, following the collapse in per capita incomes worldwide 2020, 40 percent of advanced economies have recovered and, in some cases, exceeded their 2019 output levels. The proportionate share of countries achieving per capita income in 2021 that exceeds 2019 output is much lower among middle-income

countries, at 27 percent, and even lower among low-income countries, at only 21 percent (The World Bank, 2023).

Covid-19 has affected Indonesia's Gross Domestic Product (GDP) and its growth in the 2018-2022 period as shown in Table 1.

**Table 1. Gross Domestic Product at Constant 2010 Prices for the 2018-2022 Period (Rp billion)**

Year	GDP (Rp Billion)	Growth (%)
2018	10.002.892,8	4,95
2019	10.498.610,4	4,96
2020	10.331.632,3	-1,59
2021	10.669.465,4	3,27
2022	11.197.460,5	4,95

Source: Bank Indonesia (2023)

Based on Table 1, Indonesia encountered economic disruptions during the 2018-2022 period, particularly in 2020, due to the impact of Covid-19, which led to a decrease in GDP at constant prices from 10,498,610.4 (Rp billion) in 2019 to 10,331,632.3 (Rp billion) and a negative economic growth rate of -1.59%. The outbreak of Covid-19 had a significant setback on Indonesia's economy. However, with prompt government efforts to combat the pandemic, the Indonesian economy rebounded in 2021, achieving a growth rate of 3.27%. This positive trend continued in 2022, with the Indonesian economy expanding by 4.95%. As a result of this economic recovery, Indonesia's economy has now regained its growth trajectory similar to the pre-Covid-19 period.

Based on the description above, the purpose of this research is to describe what economic sectors have been affected by Covid-19, what economic policies have been implemented by the government to restore the economy, and what economic sectors have recovered relatively faster.

## METHOD

The data used in this study is Indonesia's GDP at constant prices based on the economic sector for the 2019-2022 period. The data were analyzed using descriptive analysis. The development of the added value of each economic sector, the distribution of the added value of each economic sector to GDP, as well as the growth of the added value of each economic sector.

## RESULTS AND DISCUSSION

This research discusses the development of sectoral added value and its growth, as well as sectoral economic distribution to GDP. The following begins the discussion of sectoral added value.

### Sectoral Added Value

During the 2019-2022 period, as information from Table 2 shows, changes in the added value of economic sectors can be grouped into 4 groups, namely: first,

some sectors have experienced an increase in added value during the 2019-2022 period. Second, the economic sector whose added value in 2020 decreased, then the following year has recovered. Third, the economic sector whose added value in 2020 decreased, then the following year has not recovered. Fourth, economic sectors whose added value has decreased after 2020.

**Table 2. Sectoral Added Value at Constant Prices in Indonesia for the 2019-2022 Period (Rp Billion)**

No	Industrial Origin	2019	2020	2021	2022
1	Agriculture, Forestry, and Fishing	1,354,399.1	1,378,398.9	1,404,190.9	1,435,853.3
2	Mining and Quarrying	806,206.2	790,475.2	822,099.5	858,146.6
3	Manufacturing	2,276,667.8	2,209,920.3	2,284,821.7	2,396,603.0
4	Electricity and Gas	111,436.7	108,826.4	114,861.1	122,451.9
5	Water Supply; Sewerage, Waste Management, and Remediation	9,004.9	9,449.3	9,919.3	10,240.1
6	Construction	1,108,425.0	1,072,334.8	1,102,517.7	1,124,725.2
7	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	1,440,185.7	1,385,651.2	1,449,831.4	1,529,885.6
8	Transportation and Storage	463,125.9	393,418.9	406,169.3	486,874.9
9	Accommodation and Food Service Activities	333,304.6	299,122.4	310,748.6	347,943.8
10	Information and Communication	589,536.1	652,062.9	696,506.1	750,389.2
11	Financial and Insurance Activities	443,093.1	457,486.5	464,637.7	473,615.0
12	Real Estate Activities	316,901.1	324,259.4	333,282.9	339,014.9
13	Business Activities	206,936.2	195,671.1	197,106.7	214,399.0
14	Public Administration and Defence; Compulsory Social Security	365,538.8	365,446.0	364,251.4	373,439.1
15	Education	341,349.9	350,272.8	350,662.6	352,716.2
16	Human Health and Social Work Activities	127,487.9	142,227.3	157,085.3	161,384.9
17	Other Services Activities	205,011.4	196,608.9	200,773.2	219,777.8
Gross Value Added At Basic Price		10,498,610.4	10,331,632.3	10,669,465.4	11,197,460.5

Source: Bank Indonesia (2023)

Even though there was Covid-19, the economic sectors that experienced an increase in added value during the 2019-2022 period were the Agriculture, Forestry, and Fishing sectors, the Water Supply sector; Sewerage, Waste Management and Remediation sector, Information and Communication sector, Financial and Insurance Activities sector, Real Estate Activities sector, Education sector, Human Health, and Social Work Activities sector.

The economic sector whose added value in 2020 decreased, the following year has recovered. are the Mining and Quarrying sector, the Manufacturing sector, the Electricity and Gas sector, the Wholesale and Retail Trade sector; Repair of Motor Vehicles and Motorcycles sector.

The economic sectors whose added value in 2020 experienced a decline, then the following year have not recovered are the Construction sector, the Transportation and Storage sector, the Accommodation and Food Service Activities sector, the Business Activities sector, and the Other Services Activities sector.

The economic sector whose added value has decreased after 2020 is the Public Administration and Defense sector; Compulsory Social Security in 2020 and 2021 successively decreased added value, then in 2022, there will be an increase.

### Sectoral Growth

Based on the grouping of changes in value-added data in Table 2, the first and fourth groups are most easily seen in Table 3. The first group is marked by sectoral growth which is always positive, which means that every year the added value of the sector continues to increase. Likewise with the fourth group that sectoral growth in 2020 will be negative and in 2021 it will also be negative. This shows that the sector is still unable to recover in 2021. Meanwhile, for the second and third groups, it is a little more difficult to distinguish if you look at Table 3. The two groups will both have negative sectoral growth in 2020, but in 2021, but in 2021 these sectors will have positive sectoral growth. To reduce the difficulty in distinguishing the second and third groups, this can be done by comparing sectoral growth in 2021 and 2020. If the positive growth in 2021 exceeds the negative growth in 2020 then it can be included in the second group, whereas if the positive growth in 2021 is smaller than the growth in 2020 which is negative then it can be included in the third group.

**Table 3. Sectoral Growth in Indonesia for the 2019-2022 Period (%)**

No	Industrial Origin	2019	2020	2021	2022
1	Agriculture, Forestry, and Fishing	3.61	1.77	1.87	2.25
2	Mining and Quarrying	1.22	- 1.95	4.00	4.38
3	Manufacturing	3.80	- 2.93	3.39	4.89
4	Electricity and Gas	4.04	- 2.34	5.55	6.61
5	Water Supply; Sewerage, Waste Management, and Remediation	6.83	4.94	4.97	3.23
6	Construction	5.76	- 3.26	2.81	2.01
7	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	4.60	- 3.79	4.63	5.52
8	Transportation and Storage	6.38	- 15.05	3.24	19.87
9	Accommodation and Food Service Activities	5.79	- 10.26	3.89	11.97
10	Information and Communication	9.42	10.61	6.82	7.74
11	Financial and Insurance Activities	6.61	3.25	1.56	1.93
12	Real Estate Activities	5.76	2.32	2.78	1.72
13	Business Activities	10.25	- 5.44	0.73	8.77
14	Public Administration and Defence; Compulsory Social Security	4.66	- 0.03	- 0.33	2.52
15	Education	6.30	2.61	0.11	0.59
16	Human Health and Social Work Activities	8.66	11.56	10.45	2.74
17	Other Services Activities	10.57	- 4.10	2.12	9.47
Gross Value Added At Basic Price		4,96	- 1,59	3,27	4,95

Source: Table 2.

### Sectoral Contribution

The existence of different sectoral growth differences between economic sectors will cause the distribution of the percentage of added value generated by each economic sector. This shows the magnitude of the contribution of each sector to the Gross Domestic Product as shown in Table 4.

Based on constant prices, four economic sectors provide the largest contribution to GDP, and around 58.5% of GDP comes from these 4 economic sectors. First, the Manufacturing sector is the economic sector that contributes the most to GDP where this sector contributes an average of 21.5% of GDP. Even though this sector is the largest contributor, its contribution has decreased since 2020.

**Table 4. Sectoral Contribution on GDP atas Dasar Harga Konstan in Indonesia for the 2019-2022 Period (%)**

No	Industrial Origin	2019	2020	2021	2022
1	Agriculture, Forestry, and Fishing	12.9	13.3	13.2	12.8
2	Mining and Quarrying	7.7	7.7	7.7	7.7
3	Manufacturing	21.7	21.4	21.4	21.4
4	Electricity and Gas	1.1	1.1	1.1	1.1
5	Water Supply; Sewerage, Waste Management, and Remediation	0.1	0.1	0.1	0.1
6	Construction	10.6	10.4	10.3	10.0
7	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	13.7	13.4	13.6	13.7
8	Transportation and Storage	4.4	3.8	3.8	4.3
9	Accommodation and Food Service Activities	3.2	2.9	2.9	3.1
10	Information and Communication	5.6	6.3	6.5	6.7
11	Financial and Insurance Activities	4.2	4.4	4.4	4.2
12	Real Estate Activities	3.0	3.1	3.1	3.0
13	Business Activities	2.0	1.9	1.8	1.9
14	Public Administration and Defence; Compulsory Social Security	3.5	3.5	3.4	3.3
15	Education	3.3	3.4	3.3	3.1
16	Human Health and Social Work Activities	1.2	1.4	1.5	1.4
17	Other Services Activities	2.0	1.9	1.9	2.0
Gross Value Added At Basic Price		100	100	100	100

Source: Table 2.

Second, the Wholesale and Retail Trade sector; Repair of Motor Vehicles and Motorcycles is the second largest contributing sector with an average contribution of 13.6%. After 2020, the contribution of this sector has increased.

Third, the Agriculture, Forestry, and Fishing sector is the third largest contributing sector with an average contribution of 13.1%. After 2020, the contribution of this sector has decreased.

Fourth, the construction sector is the fourth largest contributing sector contributing an average of 10.3%. The contribution of this sector has continued to decline since the outbreak of Covid-19.

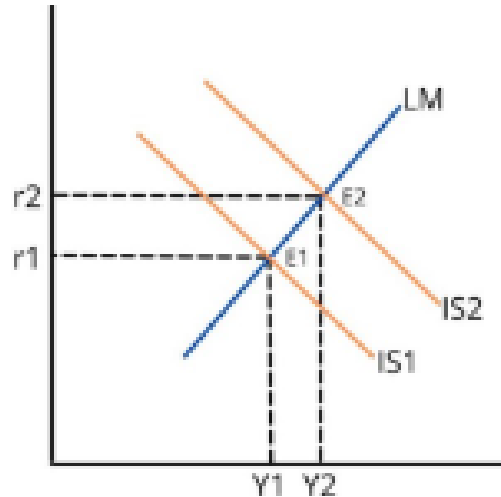
### **Economic Recovery Policy**

The Covid-19 pandemic led to an economic downturn, prompting the government to adopt an economic revitalization plan. In addition to relying on health measures as a primary pillar of economic recovery, they are also employing fiscal and monetary policies. The government has introduced various fiscal measures to address the situation, such as Social protection program (Perlinsos), support to the business world and Micro, Small, and Medium Enterprises (MSMEs) by providing the Family Hope Program (PKH), basic food cards, pre-employment

cards, direct cash assistance (BLT), interest subsidies for people's business loans, and incentives business (Saadah, 2022).

In addition to the above policies, the government also provides income tax relief article 21, exemption from income tax article 22, reductions in income tax article 25, and reductions in export and import restrictions (Hayati, 2022).

This fiscal policy is expansive so that it can shift the IS curve to the right from IS1 to IS2 which can increase the use of labor and increase income from Y1 to Y2 (Figure 2). This fiscal policy is to increase people's consumption so that production activities also increase.



**Figure 2. Expansionary fiscal policy**

Source: Hayati (2022)

Meanwhile, the monetary policy pursued by Bank Indonesia was to increase the money supply by suspending debt payment installments for a year for business debtors. This causes a decrease in interest rates. Thus this expansionary monetary policy can cause inflation.

### **Sectoral growth during the Covid-19 period**

At the time of Covid-19 which occurred in 2020, the economic sector that grew the highest was the Human Health and Social Work Activities sector as the sector that grew the most, namely 11.56%. This is due to the implementation of health policies and these policies are the key to economic recovery. Handling Covid-19 which requires very large government spending. The next sector that has the second highest growth is the Information and Communication sector because during the pandemic there were very many activities that had to be carried out using the internet, such as teaching and learning processes, working from home, and trading online. The growth of this sector is the result of a growth transformation, in which other sectors use the Information and Communication sector (Carlsoon-Szlezak and Swartz, 2021). Other growing sector is the Water Supply sector; Sewerage, Waste Management and Remediation sector, Financial and Insurance Activities sector, Real Estate Activities sector, Education sector, and Agriculture, Forestry, and Fishing sector.

### **Sectoral Affected during the Covid-19 Period**

The sector that was most affected by Covid-19 in 2020 was the Transportation and Storage sector, this happened due to social restrictions, residents were prohibited from traveling so transportation equipment was not operated. The second heaviest sector affected is the Accommodation and Food Service Activities sector, the Business Activities sector. This sector is closely related to the Transportation and Storage sector. Thus these two sectors are heavily affected due to social restrictions and travel bans. Likewise, the Business Activities sector and Other Services Activities sector experienced a significant decrease in added value, because many workers were laid off from their jobs so the added value of these two sectors also decreased.

### **Quick Recovery Sector**

Through the economic recovery policy that has been implemented by the government to drive economic activity, the fastest-recovering sector in 2021 is the Mining and Quarrying sector, the Manufacturing sector, the Electricity and Gas sector, the Wholesale and Retail Trade sector; Repair of Motor Vehicles and Motorcycles sector.

### **CONCLUSION**

Covid-19 causing contractionary economic conditions, therefore, the policies pursued by the government to restore the economy are expansionary fiscal and monetary policies to increase public consumption to stimulate economic activity.

At the time of Covid-19 which occurred in 2020, the economic sector that grew the highest was the Human Health and Social Work Activities sector, the Information and Communication sector, the Water Supply sector; Sewerage, Waste Management and Remediation sector, Financial and Insurance Activities sector, Real Estate Activities sector, Education sector, and Agriculture, Forestry, and Fishing sector.

The sector that was most affected by Covid-19 in 2020 was the Transportation and Storage sector, the Accommodation and Food Service Activities sector, the Business Activities sector, the Transportation and Storage sector, the Business Activities sector, and Other Services Activities sector.

Through the economic recovery policy that has been implemented by the government to drive economic activity, the fastest-recovering sector in 2021 is the Mining and Quarrying sector, the Manufacturing sector, the Electricity and Gas sector, the Wholesale and Retail Trade sector; Repair of Motor Vehicles and Motorcycles sector.

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