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Covid-19 Pandemic and Severity of Economic Impacts: The Indonesian Case

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Abstract: This study tends to examine the impacts of the Covid-19 pandemic on the Indonesian economy with the focus on economic growth, poverty, income distribution, unemployment, tourism sector, and businesses. More specifically, this study tries to answer the following two questions. First, how serious has been the negative shock of the Covid-19 pandemic on the Indonesian economy, especially on economic growth, employment, wages, poverty, inequality, tourism activities and businesses? Second, what were the main economic transmission channels through which the Covid-19 pandemic have caused that negative shock? It adopted an exploratory methodology with a comprehensive review of available literature, including policy documents, research papers, and reports and secondary data analysis. Data used was from the National Bureau of Statistics (BPS). It reveals that the Covid-19 pandemic has affected the Indonesian economy through four main channels: (i) declined domestic demand as a direct consequence of the ''anti-Covid-19 impact'' policy; (ii) declined export; (iii) declined imports of processed raw materials and auxiliary materials; and (iv) increased poor people as many employees have been laid off, or their wages were cut. As a result, the country's economy experienced a growth contraction of 2.07 percent, the number of foreign tourists visited Indonesia dropped significantly, the unemployment rate as well as the percentage of poor people increased, the Gini ratio experienced an increase, and many companies have suffered huge losses, especially in the tourism sector and also those whose businesses were very dependent on this sector such as transportation and food and beverage companies, as well as hotels and other accommodation provider companies.

***Keywords*:** Covid-19, economic growth, poverty

JEL Codes: B22, D31, E24, E32

1. Introduction

The world has been gripped by a pandemic over the first half of 2020. It was identified as a new coronavirus (severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2), and later named as Coronavirus Disease-19 or Covid-19 (Qiu et al., 2020). It emerged first in the city of Wuhan in Hubei province, China, and then from there the virus has spread rapidly throughout the world, resulting in a human tragedy and tremendous economic damage that the world has ever experienced, "*We are facing a joint health and economic crisis of unprecedented proportions in recent history*"

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(Gourinchas, 2020). ''*COVID-19 caused a global recession whose depth was surpassed only by the two World Wars and the Great Depression over the past century and a half*'' (WB, 2021).

The rapid and widespread of Covid-19 has forced countries around the world to adopt several mitigation measures to stop its spread, including implementing social distancing (Fong et al., 2020). As part of social distancing, business activities, schools, community centers, and Non-Governmental Organizations (NGOs) have been asked to stop, mass gatherings have been banned, and lockdown measures have been put in place in many countries to reduce or to stop exponential growth in the number of new cases of Covid-19 from one day to the next and thereby reduce pressure on medical services (John Hopkins University, 2020).

It was estimated that the spread of Covid-19 will have a significant impact on slowing economic activities. According to the International Monetary Fund's preliminary estimate (IMF, 2020), the global economy will contract by around 4.9 percent in 2020. For Indonesia, Suryahadi et al. (2020) estimated that Covid-19 would reduce the country's economic growth to between 1% and 4%. Whereas the Financial System Stability Committee (KSSK) predicted that the spread of Covid-19 would hit the Indonesian economy in 2020 to reach around 2.3% to -0.4%.

This study aimed to examine the impact of the Covid-19 pandemic on the Indonesian economy with the focus on economic growth, poverty, income distribution, unemployment, tourism sector and businesses. More specifically, it tried to answer the following two questions:

(i) How serious has been the negative shock of the Covid-19 pandemic on the Indonesian economy, especially on economic growth, employment, wages, poverty, inequality, tourism, and businesses?

(ii) What were the main economic transmission channels through which the Covid-19 pandemic have severely affected the Indonesian economy?

2. Literature review

2.1 *Macroeconomic impacts*

Brodeur et al. (2020) emphasize that to understand the potential negative impact of the Covid-19 pandemic on the economy, it is necessary to understand first the economic transmission channels through which the pandemic is causing negative shocks to the economy. According to Carlsson-Szlezak et al. (2020a, b), there are three main transmission channels in the Covid-19 case, namely: (i) the direct impact which is related to the declined consumption of goods and services due to the government regulations to maintain social distancing, study and work at home, as well as the closure of all businesses not considered as strategic sectors; (ii) indirect impacts through financial market shocks and their effects on the real economy; and (iii) supply-side disruptions bringing production to a standstill, and this will have negative impacts on supply chains, labor demand and employment, leading to prolonged periods of layoffs and rising unemployment. Gourinchas (2020) emphasizes that due to the very high level of linkage and specialization of productive activities in the current global economy, broken supply chains and circular flows will have a cascading effect and extend to the economies of many countries.

Based on Cesa-Bianchi et al.'s (2020) study, there are several channels through which excessive global volatility like the one that hit the world caused by the Covid-19 virus can affect economic growth. These channels include higher precautionary savings, lower or delayed investment (owing to increased uncertainty and weaker market demand prospects), and a higher cost of raising capital (owing to higher funding costs in a volatile environment).

Baldwin (2020) analyzed the impact of the Covid-19 pandemic on the economy by examining its effect on income streams. The analysis points to several important things. First, the large number of workers who are laid off will reduce consumption and savings. Furthermore, a reduction in saving reduces credit availability in banks which in turn reduces investment and ultimately reduces the capital stock of firms. Second, the impact of declining income due to a surge in unemployment will reduce imports, which means that exports on the other side will also decline and in turn, it will reduce the income of exporting countries. Third, the decline in demand and production (supply) in turn disrupts domestic and international supply chains.

Carlsson-Szlezak et al. (2020b) state that after previous pandemics, such as the 1918 Spanish Influenza, the 1958 Asian Influenza, the 1968 Hong Kong influenza, and the 2002 SARS outbreak, the economy has experienced a 'V-shaped' recovery. However, the economic recovery of the Covid-19 pandemic is not expected to be immediate. This is because

the impact on the economy as a direct result of the social distancing/lockdown regulations is expected to be much greater.

Ludvigson et al. (2020) found that the economic crisis resulting from the Covid-19 pandemic is the same as a large multi-period exogenous shock. A major multi-period shock in the US could lead to a 12.75 percent drop in industrial production, a 17 percent loss in service jobs, a sustained reduction in air travel, and lasting macroeconomic uncertainty for up to five months. While Pak et al. (2020) conclude that the spread of the virus is likely to continue to disrupt economic activity and have a negative impact on manufacturing and service industries, and financial markets are expected to continue to fluctuate, especially in developed countries.

Other studies on the macroeconomic impact of the Covid-19 pandemic include McKibbin and Fernando (2020) who explored the global macroeconomic effects of alternative scenarios on how Covid-19 may develop in the coming year (2021). Their study highlighted the role of spillover. Others such as Ludvigson et al. (2020) calculated the macroeconomic impact of the pandemic in the US using the VAR framework and measured the magnitude of shocks due to the pandemic related to past adverse disasters. Pagano et al. (2020) and Capelle-Blancard and Desroziers (2020) examined the effects of the pandemic on the stock market and various sectors of the economy in the US. Baqaee and Farhi (2020) investigated the possibility of non-linearity in response to the Covid-19 pandemic using a multi-sectoral model. Chudik et al. (2020) used a 'multi-country econometric model with additional thresholds' to measure the impact of the Covid-19 shock in several dimensions. In overall, findings from all those studies may suggest that a global recession like the 2020/21 crisis due to the Covid-19 pandemic will last a long time, without any country escaping impact regardless of their adopted mitigation strategies. Chudik et al.'s (2020) research shows that the huge negative effects of the pandemic will last for years to come on the interconnected world economies. As also stated by the World Bank in its recent report on Global Economic Prospect: *Although global economic activity is growing again, it is not likely to return to business as usual for the foreseeable future. The pandemic has caused a severe loss of life, is tipping millions into extreme poverty, and is expected to inflict lasting scars that push activity and income well below their pre-pandemic trend for a prolonged period* (WB, 2021).

2.2 *Impacts on employment and wages*

The literature on the impacts of the Covid-19 pandemic on employment is growing. To name a few are Adams-Prassl et al. (2020), Alstadsæter et al. (2020), Aum et al. (2020), Bartik et al. (2020), Béland et al. (2020a, b), Brynjolfsson et al. (2020), Coibion et al. (2020a, b), Kahn et al. (2020), Qiu et al. (2020), and Rojas et al., 2020). Many of these studies used US data. For example, Rojas et al. (2020) found an increase in unemployment in the US in part due to lockdown/social distancing policies. It reveals from Gupta et al.'s (2020) study that the number of job opportunities decreased by about 1.7 percentage points for every 10 extra days of staying at home during the period they observed from March 12 to April 12. Findings from Brynjolfsson et al.'s (2020) research show that the increase in Covid-19 cases led to a significant increase in the fraction of workers switching to remote work and a decrease in the fraction of workers commuting to work on a daily basis.

Findings from of a survey conducted by Bartik et al. (2020) show that many companies in the US temporarily closed their businesses and reduced the number of their employees. Meanwhile, Campello et al. (2020) found that job loss was more severe for industries with highly concentrated labor markets (i.e., where recruitment is concentrated across multiple employers), non-tradable sectors (e.g., construction, healthcare), and medium to lower scale companies with a limited amount of credit. Adams-Prassl et al. (2020) analysed inequality in job/income loss by type of job and individual characteristics in the US and UK. The results show that workers who are unable to perform their duties from home are more likely to lose their jobs, and younger individuals and people without a university education are significantly more likely to experience a decrease in income.

Apart from the US, there is also quite a lot of research from several other countries. For example, Aum et al. (2020) with data from South Korea found that an increase in the number of people infected with Covid-19 resulted in a decrease in local employment even though there was no lockdown policy in the country. While Alstadsæter et al.'s (2020) research with Norwegian data shows that the pandemic shock in the country has a strong socio-economic gradient because it has disproportionately affected the financially vulnerable population, including parents with younger children. From China, Qiu et al. (2020) by using an instrumental variable approach investigated the impact of the pandemic at different income levels, and they found that cities with higher income levels (measured by GDP per capita at the city

level) are more likely to have higher rates of transmission due to more social interactions and higher levels of economic activity.

2.3 *Impacts on poverty*

The Covid-19 pandemic crisis has caused many companies from all sizes to halt their activities, and so, as a result, the rate of economic growth fell or even grew negatively, and the number of unemployed increased. In the end, the number of poor people also increased. Suryahadi et al. (2020) estimated the impact of Covid-19 on poverty in Indonesia. One of their projection puts 1.2 million people in the country would eventually be infected. Under the mildest Covid-19 impact on economic growth, the poverty rate will increase from 9.2 percent in September 2019 to 9.7 percent by the end of 2020. This implies that 1.3 million more people will be pushed into poverty. Under their most severe projection, the poverty rate will increase to 12.4 percent, implying 8.5 million more people will become poor. The latter means that Indonesia's progress in reducing poverty over the last decade would be wiped out.

UNICEF (2020) explored how the economic shock resulting from Covid-19 affect child poverty in Indonesia. Its finding may suggest that without the full implementation of the government's emergency support package, the economic shock would significantly increase child poverty in the country in 2020. Under the Covid-19 scenario 13.5 per cent of children would be living below the official poverty line.

By using the June (2020) vintage of growth forecasts from the World Bank's Global Economic Prospects (GEP), Lakner et al. (2021) estimated that between 88 and 115 million people around the globe would be pushed into extreme poverty in 2020 because of the Covid-19 pandemic crisis. Using the January 2021 forecasts from GEP, they expect the Covid-19-induced new poor in 2020 to rise to between 119 and 124 million. This estimated increase in global poverty in 2020 is truly unprecedented. The same was also estimated by Wilkinson (2020) that poverty is expected to increase for the first time since 1998, particularly in fragile states where most of the global extreme poor will reside such as Rwanda, Cote d'Ivoire, Ghana, Colombia, Senegal and Sierra Leone debt.

3. Research method and data source

This is a qualitative research with descriptive approach. It adopted an exploratory methodology with comprehensively reviewing the available literature, including policy documents, research papers, and reports on the subject being studied and secondary data analysis. Data used was from the National Bureau of Statistics (BPS).

4. Results and discussion

4.1 *Transmission channels*

The Covid-19 pandemic has affected the Indonesian economy through four main channels (Figure 1). The first channel was the result of the ''anti-Covid-19 impact'' policy which consisted of three main elements: (i) social/physical distancing; (ii) learn and work from home; and (iii) the temporary suspension of business activities in non-strategic sectors. The second element obviously has caused the number of buyers in the local market to decrease dramatically (↓). Thus, this policy element has affected domestic economic activities on the demand-side ('demand effect'). Whereas the third element of the policy has affected domestic economic activities on the supply-side ('supply effect'). These demand-side and supply-side effects did not happen only in companies producing or supplying final products but also those supplying processed raw materials, components, spare parts, auxiliary goods, semi-finished goods and other inputs.

The second channel was the decrease in world demand, especially from China, for Indonesian products which caused Indonesia's exports to decrease (ADB, 2020). The third channel was the decline in imports of processed raw materials and auxiliary materials, especially from China, which forced many companies, in Indonesia which were highly dependent on import from China to reduce/stop their production (Kompas, 2020a, b). The fourth channel was the increase in the number of poor people as many employees have been laid off, or their wages were cut, which further led

local market demand to decline that hit businesses.

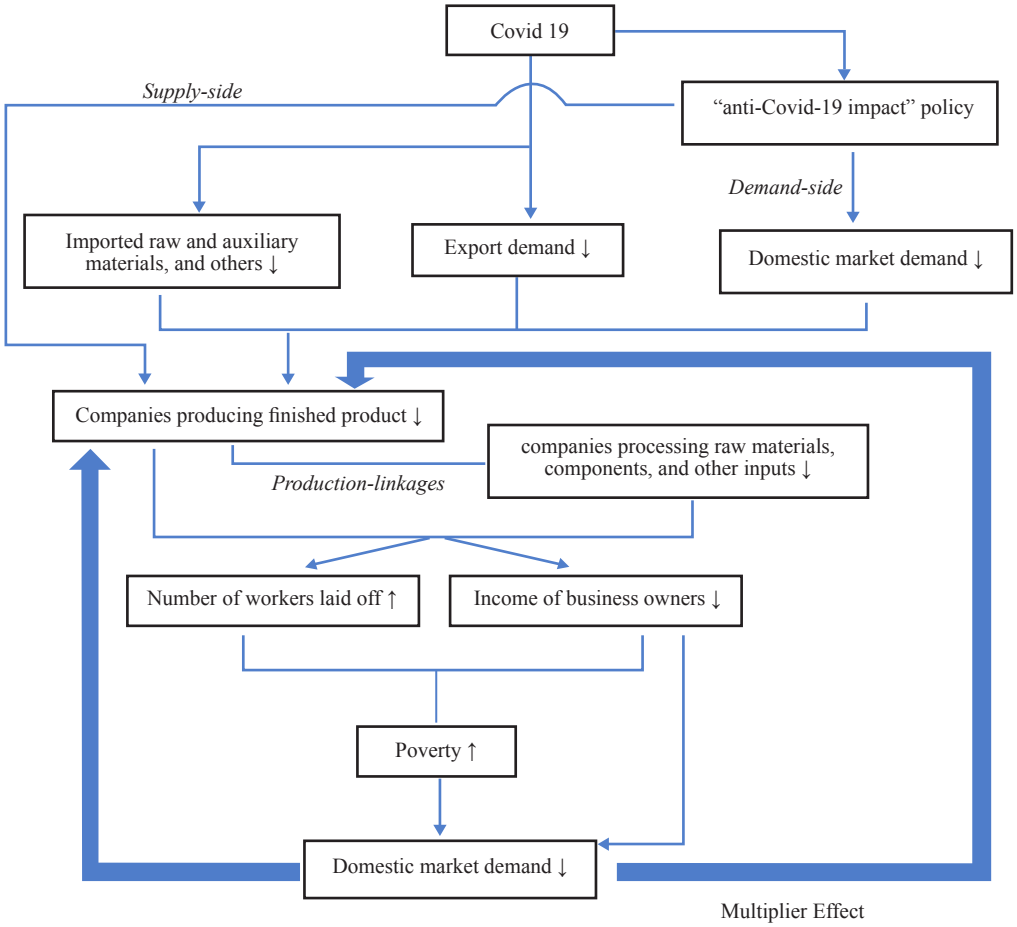
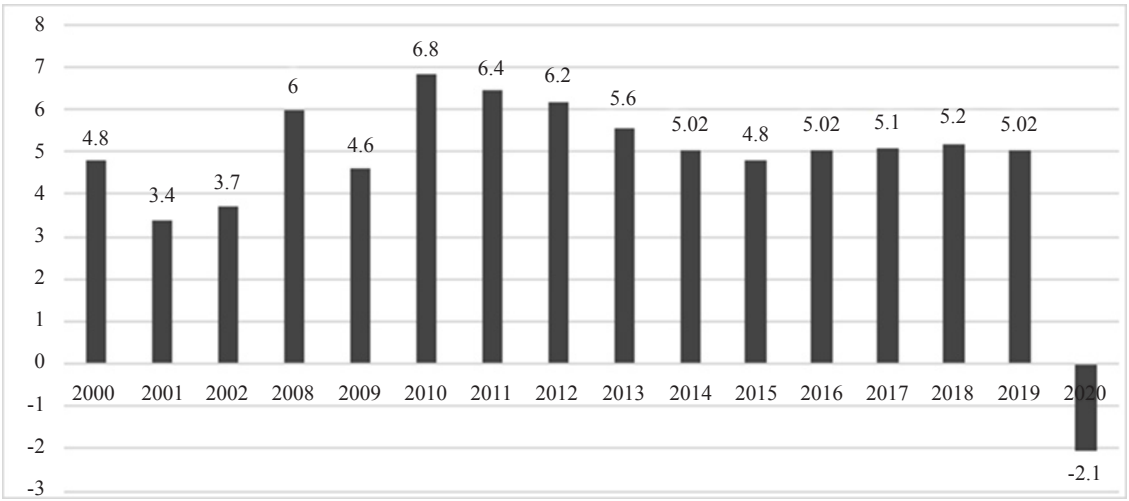


Figure 1. The main economic transmission channels of the impact of the Covid-19 pandemic on the Indonesian economy

4.2 *Economic growth impact*

Since the end of the Asian financial crisis 1997-1998, which caused Indonesia's economy to drop by 13 percent, Indonesia's economic growth has continued to be positive until 2020 when the Covid-19 pandemic broke out (Figure 2). BPS data shows that as a direct consequence of the ''anti-Covid-19 impact'' policy which resulted in a drastic reduction in domestic economic activities, the country's economy in 2020 experienced a growth contraction of 2.07 percent. As in other affected countries, the anti-Covid-19 impact policy has brought business activities to a standstill in many sectors or drastically reduced their activities. Business fields that experienced the deepest growth contraction were transportation and warehousing with 15.04 percent, and provision of accommodation and food and drink amounted to 10.22 percent. The anti-Covid-19 impact policy resulted in a drastic reduction in the mobilization of people including tourists so that the use of transportation such as trains, airplanes and buses between cities; hotel reservations; and visits to restaurants were drastically reduced. Other sectors with negative growth were company services by 5.44 percent; other services by 4.10 percent; and large trade and retail; car and motorcycle repair by 3.72 percent. According to the Ministry of Manpower, approximately 96 percent of companies in all affected sectors in Indonesia were affected directly or indirectly by this policy (Bayu, 2021).

However, there are some sectors which are still experiencing positive growth, including health services and social activities 11.60 percent; information and communication 10.58 percent; procurement water, waste management, waste and recycling by 4.94 percent; real estate of 2.32 percent; and agriculture, forestry and fisheries 1.75 percent.

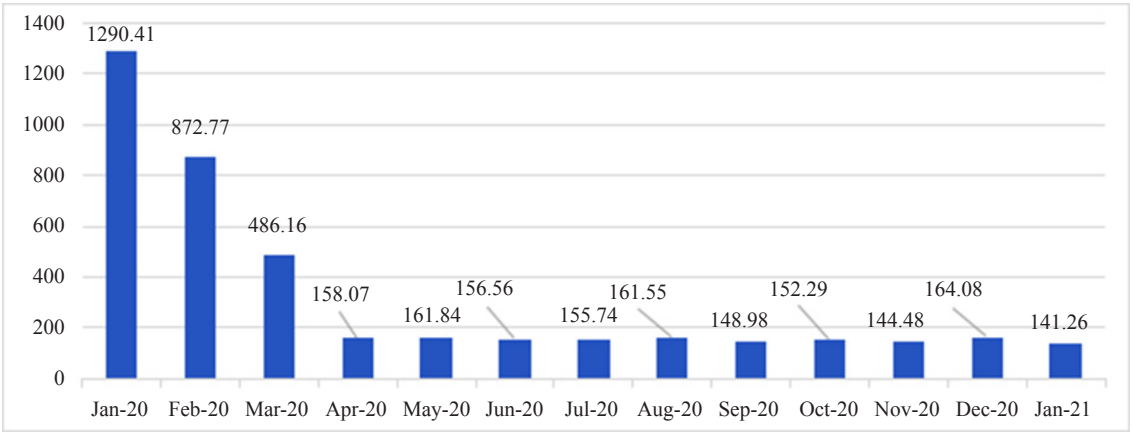


Source: BPS (https://www.bps.go.id/)

Figure 2. Annual growth of Indonesian real GDP, 2000-2021 (%)

4.3 *Impact on the tourism sector*

The sector hardest hit by the pandemic is the tourism sector. Judging based on those who entered through all international airports in the country, the number of foreign tourists visited Indonesia in January 2021 dropped significantly by 99.79 percent compared to the number of those visited in January 2020. All international airports in Indonesia experienced a decline, even at most airports the decline reached 100 percent. Meanwhile, the main international airport in Indonesia, Soekarno-Hatta, experienced a decrease at 99.34 percent. Figure 3 shows number of foreign tourists visited Indonesia per month for the period January 2020-January 2021.



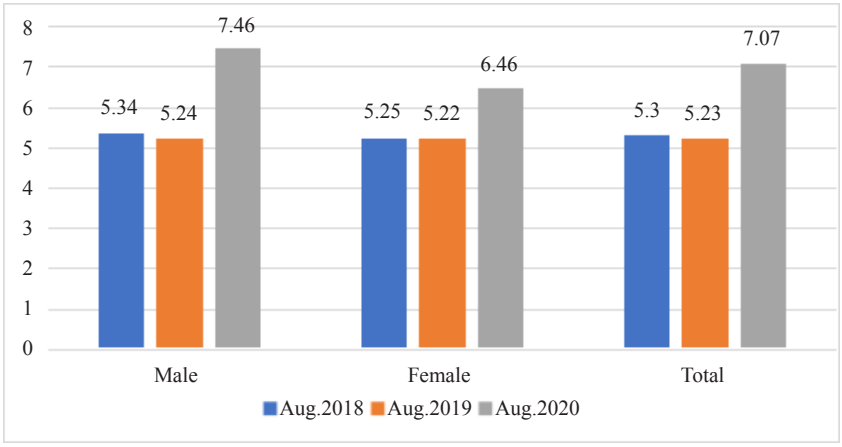
Source: BPS (https://www.bps.go.id/)

Figure 3. Number of visiting foreign tourists in Indonesia during the period January 2020-January 2021 (thousand visitors)

4.4 *Labor market outcomes*

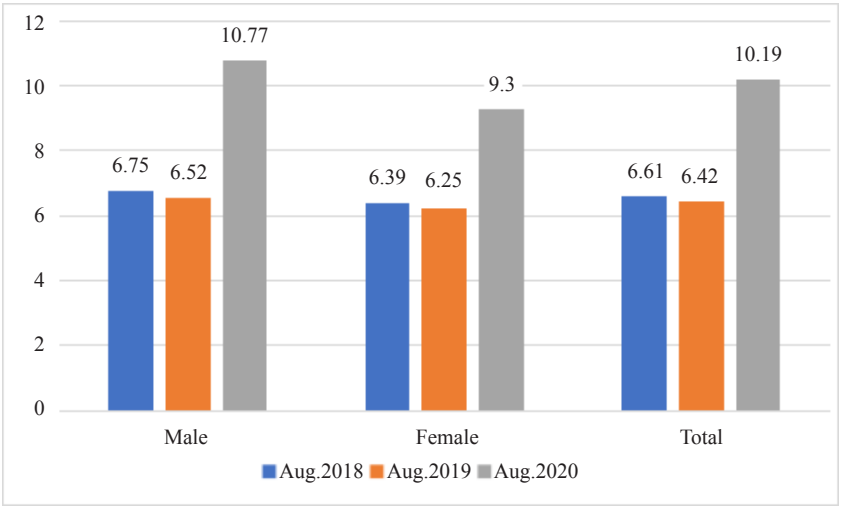
The large number of companies that closed or reduced their activities during the Covid-19 pandemic automatically resulted in an increase in the number of unemployed. According to official data from the government, the open

unemployment rate in August 2020 was 7.07 percent of total labor force, which means from 100 people in the workforce, there were about seven unemployed. In August 2020, the open unemployment rate experienced a sizable increase of 1.84 percentage points compared to August 2019 (Figure 4). By gender, the figure shows that in August 2020, the total unemployed male was 7.46 percent of total male labor force, higher than the employment rate for women which amounted to 6.46 percent. Compared to August 2019, men's unemployment rate rose 2.22 percentage points, while that of women increased 1.24 percentage points.



Source: BPS (https://www.bps.go.id/)

Figure 4. Trend of Open Unemployment Rate by Gender in Indonesia between August 2018 and August 2020 (percent)



Source: BPS (https://www.bps.go.id/)

Figure 5. Trend of underemployment rate by gender in Indonesia, August 2018-August 2020 (percent)

According to official data, the working age population affected by Covid-19 is grouped into four components, namely (a) unemployed; (b) not included in the labor force that has stopped working in the period February-August 2020; (c) residents who worked before Covid-19 with temporary status: currently not working; and (d) working residents who experienced a reduction in working hours. Conditions (c) and (d) are the impact of the Covid-19 pandemic felt by those who are currently still working, while conditions (a) and (b) are the impact of the Covid-19 pandemic on those who have stopped working.

In Table 1, it can be seen that the number of people with working age who were affected by Covid-19 is recorded as much as 29.12 million people, consisting of 2.56 million people unemployed (A), 0.76 million people not in the labor force (B), 1.77 million people do not work temporarily (C), and 24.03 million people in the category of working population who experienced a reduction in working hours (D). Judging from gender, the male working-age population who were affected by Covid-19 reached 17.75 million people, which is bigger than female working-age population, i.e. 11.37 million people. Meanwhile, when viewed from area of residence, the population of working age in urban areas who were affected by Covid-19 is as many as 20.56 million people, while in rural areas as many as 8.56 million people.

Table 1. Impact of Covid-19 on the working-age population by sex and region, August 2020 (million people)

Description	Sex		Location		Total
	Male	Female	Urban	Rural	
(a) A due to Covid-19	1.66	0.90	1.94	0.62	2.56
(b) B due to Covid-19	0.24	0.52	0.53	0.23	0.76
(c) C due to Covid-19	1.09	0.68	1.27	0.50	1.77
(d) D due to Covid-19	14.76	9.27	16.82	7.21	24.03
Total	17.75	11.37	20.56	8.56	29.12
Working population (E)	101.96	102.02	115.82	88.15	203.97
Percentage of E	17.41	11.15	17.75	9.71	14.28

Source: BPS (https://www.bps.go.id/)

The anti-Covid-19 impact policy has also affected the mobility of commuter workers. Commuter workers are residents who work outside the district/city where they live and routinely go and return to their place of residence on the same day. In August 2020, the number of commuter workers in Indonesia was 7.01 million people or down 21.07 percent when compared to the conditions in August 2019 (8.89 million people). The phenomenon of commuting workers is usually found in big cities. Current commuter workers' entry to big cities has generally decreased. The biggest percentage drop occurred in the city of Bandung, which amounted to 32.91 percent. DKI Jakarta Province, as the capital, too experienced a significant decrease in commuter workers in five city areas, namely around 19-32 percent (Table 2).

The impact of the Covid-19 pandemic is also felt on labor wages evenly throughout Indonesia. The size of the impact that arises between regions varies depending on the severity of the pandemic in each region. The National Labor Force Survey (SAKERNAS) for August 2020 shows that labor wages have decreased by 5.20 percent compared to August 2019. Most provinces experienced a decrease in labor wages, and the highest decrease in labor wages was found in Bali at 17.91 percent, followed by Bangka Belitung Islands at 16.98 percent and West Nusa Tenggara at 8.95 percent. Meanwhile, large provinces such as West Java, Central Java and East Java had their wages decreased by 7.48 percent, 4.77 percent, and 3.87 percent, respectively.

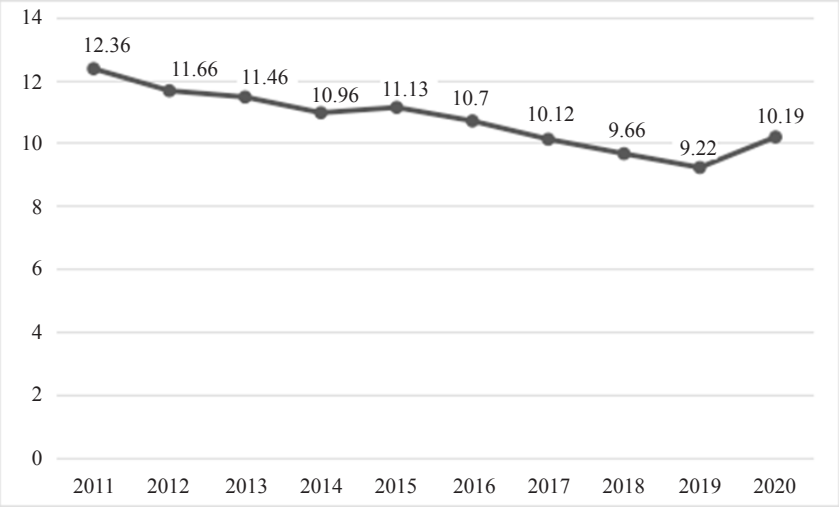
The pandemic has also had an impact on lowering labor wages across different areas of the profession through various factors, among them, changes in working hours and laying off workers with wage cuts. Changes in labor wages also varied between different businesses. The largest labor wage decline was in the category of providing accommodation and food and drinking, where the average wage of workers fell 17.28 percent. Next was the real estate which decreased by 15.70 percent, while transportation and warehousing declined by 12.13 percent. The manufacturing industry, which is a labor-intensive sector, also has a relatively significant impact of the pandemic where labor wages fell by 7.13 percent.

Table 2. Percentage of change in commuter workers entering big cities August 2019-August 2020

City	% Decline
Bandung city	-32.91
North Jakarta	-31.76
South Jakarta	-31.46
Central Jakarta	-28.05
Denpasar	-27.57
Menado	-27.46
Surabaya	-24.58
Medan	-20.27
East Jakarta	-20.22
West Jakarta	-19.26
Semarang city	-11.72
Makassar	-10.56
Palembang	-7.06
Banjarmasin	-1.41

Source: BPS (https://www.bps.go.id/)

4.5 *Impacts on poverty and inequality*



Source: BPS (https://www.bps.go.id/)

Figure 6. Poverty rate in Indonesia, 2011-2020 (%)* (Note: * September)

In Indonesia, high and sustained economic growth during the New Order era (1966-1998) made a major contribution to poverty reduction. The percentage of poverty continued to decline during the period 1970-1997. In 1998 the poverty rate went up again when the country was hit by the Asian financial crisis, and in 1999 started to decline again as the Indonesian economy began to recover rate. In 2020 because many workers lost their jobs and many

business actors experienced a decrease in their incomes due to the anti-Covid-18 impact policy, the percentage of poor people increased again (Figure 6).

Based on the area of residence, in the period March 2020-September 2020, the number of urban poor people increased by 876.5 thousand people, while in rural areas it increased by 249.1 thousand people. The percentage of poverty in urban areas increased from 7.38 percent to 7.88 percent. Meanwhile, in rural areas, it increased from 12.82 percent to 13.20 percent (Table 3). This difference can be easily understood given the fact that agriculture, which dominates the rural economy, has been much less affected by the Covid-19 pandemic compared to the secondary and tertiary sectors, especially the processing industry, tourism (especially entertainment, accommodation and recreation areas), and trade (especially offline trade activities).

Table 3. Number and percentage of poor population by region September 2019-September 2020

Region/year	Total poor population (million people)	Percentage of poor population (%)
Urban		
September 2019	9.86	6.56
September 2020	12.04	7.88
Rural		
September 2019	14.93	12.60
September 2020	15.51	13.20
National		
September 2019	24.79	9.22
September 2020	27.55	10.19

Source: BPS (http://www.bps.go.id)

Next Table 4 shows the percentage and number of poor people by island in 2020. It can be seen that the largest percentage of poor people are in the Island region Maluku and Papua (20.65 percent). Meanwhile, the percentage of poor people the lowest is on the island of Kalimantan (6.16 percent). In terms of numbers, most of the poor are in Java, where more than 50 percent of Indonesia's population is also on that island.

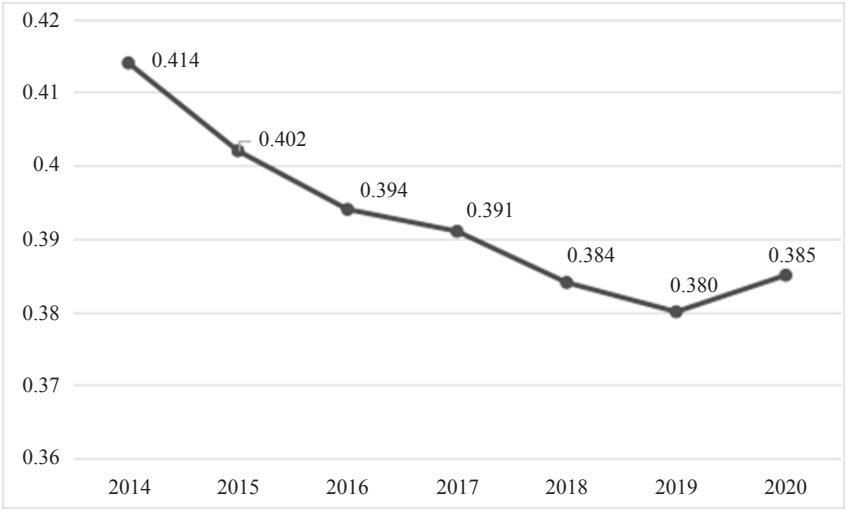
Table 4. Percentage and number of poor people by island in Indonesia, September 2020

	Percentage of poor people (%)			Number of poor people (000 men)		
	Urban	Rural	Total	Urban	Rural	Total
Sumatera	8.80	11.34	10.22	2,306.81	3,759.37	6,066.18
Java	8.03	13.03	9.71	8,105.76	6,646.27	14,752.03
Bali & Nusa Tenggara	8.99	18.18	13.92	633.96	1,482.53	2,116.49
Kalimantan	4.72	7.51	6.16	375.55	640.56	1,016.11
Sulawesi	5.95	13.45	10.41	477.07	1,584.44	2,061.51
Maluku & Papua	5.49	28.51	20.65	139.34	1,398.02	1,537.36
Indonesia	7.88	13.20	10.19	12,038.50	15,511.19	27,549.69

Source: BPS (http://www.bps.go.id)

Since the end of the 1998-1999 Asian financial crisis, several provinces have experienced a decline in poverty, while in other provinces it remained high or even gotten worse. This difference in changes in poverty rates between provinces or islands is caused by differences between provinces/islands in many respects, such as the rate of economic growth (low or high) and its nature (whether it is labor-intensive meaning that economic growth creates many new job opportunities or capital intensive meaning the rate of employment growth lower than the rate of economic growth), the structure of the economy (whether the economy is still agrarian or dominated by non-primary sectors, especially the manufacturing industry which is the largest sector in contributing added value to the economy), the condition of infrastructure (quantitative or qualitative), the size of the impact of the crisis on the province concerned (which is largely determined by, among other things, the economic openness of the province to the wider regional or international economy, and the province's readiness to an economic shock). Apart from these factors, the implementation at the provincial level of anti-poverty programs, especially during times of crisis, from the central and local governments also greatly determines the success of a province in reducing poverty.

With respect to inequality in income distribution, because of the Covid-19 pandemic the Gini Ratio value experienced an increase in March 2020 and September 2020 (Figure 7). Based on the area of residence, the urban Gini Ratio in September 2020 is 0.399. This shows an increase of 0.006 points compared to March 2020 which amounted to 0.393 and increased 0.008 points compared to September 2019 which amounted to 0.391. For rural areas, the Gini Ratio is in September 2020 was recorded at 0.319, an increase of 0.002 points compared to the conditions in March 2020 and an increase of 0.004 points. Compared to conditions in September 2019. Rural Gini Ratio in March 2020 and September 2019 recorded 0.317 and 0.315, respectively.



Source: BPS (http://www.bps.go.id)

Figure 7. Development of the Gini ratio, September 2014-September 2020

4.6 *Impacts on businesses*

Since March 2020 stories/cases about the impact of Covid-19 on businesses, especially small enterprises, in many parts of Indonesia from various sources began to emerge. Small businesses in the tourism sector were the hardest hit, followed by those in business lines which were heavily affected by the 'anti-Covid-19 impact' policies such as small shops, restaurants, cafes, and transportation. To mention some, Rahman (2020) states that more than a thousand small businesses have been seriously affected. As many as 56 percent due to a decrease in sales, 22 percent difficulty in capital, 15 percent difficulty in the distribution of products and 4 percent difficulty finding raw materials. Based on a survey of small businesses in some sectors, Hermansah (2020) found that around 96 percent claimed to have been negatively impacted. As many as 75 percent experienced a significant decrease in sales; 51 percent believe that it is very

likely that their business will only last one month to the next three months. Of the 14,238 small businesses in Serang City, 10,238 were affected. Only 4,000 businesses have survived this epidemic (Anwar, 2020). Many small businesses in Cimahi City have experienced a decline in sales of up to 80 percent. Even a large number of small businesses are forced to lay off their employees. Especially those that their businesses rely heavily on daily production activities are severely affected. Also export-oriented small businesses are also affected (Sundari, 2020).

Nurzaman (2020) did a case study of a manager of the Bueuk stamp coffee plant located in Golempang Hamlet, Ciliang Village, Parigi District, Pangandaran Regency. According to the manager, at normal times her turnover can reach 7 to 12 million IDR per month. Recently, hit by the corona pandemic crisis, she has almost closed her business because her turnover has dropped dramatically from day to day.

Burhan (2020) found that businesses revenues in the culinary, fashion retail and beauty services sectors fell during the corona pandemic. The culinary sector experienced a decline in daily income of up to 37 percent, the fashion retail by 35 percent, and beauty services by 43 percent. Also food orders at restaurants decreased very significantly by up to 60 percent. The negative impact of the pandemic was felt most significantly by small businesses that still ran their businesses offline.

The outbreak of the corona virus (Covid-19) and rules that restrict the movement of people, has led to interaction directly among business actors as well as between them and consumers. This also has an impact on consumption patterns and the way people spend, from initially conventional (face to face with traders) switching to online shopping. In 2020, BPS has conducted a national survey of 17,013 e-commerce businesses in all 34 provinces in Indonesia. The findings indicate that the Covid-19 pandemic has resulted in a decrease in business income and transaction volume and has disrupted the smooth distribution process of goods from many e-commerce companies in Indonesia. As many as 85.83 percent of e-commerce business actors experienced a decrease in operating income, while those who experienced an increase in sales were only around 4.58 percent, and only 9.59 percent of business actors admitted that they were not affected by the Covid-19 pandemic, or their income was the same as before the pandemic. When viewed from the composition of the e-commerce business whose revenue increased, as much as 2.07 percent of income increased between 25 percent to 50 percent, 1.22 percent increased by less than 25 percent, and 0.55 percent increased between 51 percent and 75 percent, and 0.75 percent, an increase of more than 75 percent.

In terms of decreasing income, there were 4.91 percent of e-commerce businesses whose revenues decreased by less than 25 percent. As many as 35.37 percent of the businesses experienced a decrease in income, between 51 percent to 75 percent decrease was experienced by 23.64 percent of businesses, 21.91 percent of business funds experienced a decrease of more than 75 percent.

During the pandemic period, the e-commerce business also experienced a decrease in transaction volume by 85.01 percent. Recorded 10.36 percent of e-commerce businesses whose transaction volume is the same as transaction volume prior to the Covid-19 pandemic. Only about 4.62 percent of businesses experienced an increase in transaction volume during the pandemic.

In addition to decreasing operating revenues and transaction volume, the Covid-19 pandemic is also affecting the smooth running of distribution goods from the e-commerce business. 76.91 percent of businesses

experienced a decline in the smooth distribution of goods, and only 19.58 percent of businesses that distributed their goods were not affected at all by the pandemic, or the same as in the period before the pandemic. However, there are about 3.51 percent of e-commerce businesses whose smooth distribution of goods has actually increased during the pandemic.

By sector, as many as 96.02 percent of businesses in transportation and warehousing admitted that their business income had dropped because of the pandemic. The bigger the business scale (in terms of the number of workers), the pandemic has an even greater impact on the volume of transactions. (providing accommodation and provision of food and drink). Meanwhile, of the 16.24 percent of businesses that experienced an increase in income of more than 75 percent, 46.80 percent were businesses with category G (wholesale and retail trade; repair and maintenance of cars and motorbikes) (BPS, 2020).

5. Conclusion

As almost other countries in the world, Indonesia has been hit by the Corona pandemic. Prior to that, Indonesia had also experienced two economic crises, namely the 1997-1998 Asian financial crisis and the 2008-2009 global financial crisis. Experience from both crises. especially from that first crisis which was indeed the most severe that Indonesia has experienced since its independence in 1945, it has provided many important lessons for the Indonesian government, including responding to crises like the current one. Indeed, the Covid crisis caused the Indonesian economy to experience a negative growth. However, with the government's much better readiness and a much stronger national economic fundamental compared to the era before the 1997-1998 crisis, the negative growth rate was not too large.

This study has two important contributions, i.e. theoretical and practical contributions. With respect to the theoretical contribution, different types of crises have different transmission channels through which the crisis affected the economy. So, an economic crisis may not affect all businesses or sectors, it depends on the type of the crisis and hence its transmission channels. The Covid-19 pandemic crisis can be considered as a combination of market demand and market supply (production) crises, as a result of 'anti-Covid-19 impact policy'. From the market demand side, only companies that make finished products (good and service) and are completely dependent on offline marketing will be hit hardly as people are staying at home. Whereas from the market supply side, generally, only companies with large numbers of workers such as textile and apparel companies, and which became a gathering place for many people such as cafes and restaurants, entertainment venues, cinemas, hotels and malls that had to close during the pandemic period. Meanwhile, small businesses that only use less than 5 workers such as small car repair shops, small car washes, small shops, or business units without workers such as craftsmen, small traders, and food stalls remain open.

As its practical contribution, if the government wants to assist crisis-affected businesses, this study has two policy implications. First, to make its stimulus packages program effective, firms that will be most affected should be identified first. And for that, it needs to know in advance the type of crisis and its main transmission channel and its related type of business risks. Second, the form of stimulus must be in line with crisis adjustment or mitigation measures adopted by the targeted companies. In other words, the stimulus program must be complementary to the adopted crisis mitigation measures. So, different measures in response to different business risks caused by different types of crises need different policy approached and different stimulus packages.

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