

## The Usage of Economic Position in Understanding Indonesia's Economy and the Pandemic Effects

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### Abstract

Before the global pandemic hit the economy in 2020, Indonesia had experienced two contractions in 1963 and 1998. These contractions came with hyperinflation, while the recent contraction of 2020 has not. This paper attempts to analyse the C-19 pandemic 2020 effects on the economy, which generates contraction but has a low inflation rate. On the opposite, the Asian Financial Crises (AFC) of 1998 caused negative economic growth and skyrocketing inflation. This paper applies descriptive data analysis and shows that the AFC had affected the aggregate supply while the pandemic has an impact on the aggregate demand. This paper offers the usage of the proportion of inflation rate and economic growth rate and the annual sectoral growth rate comparison to describe Indonesia's economic position and the pandemic effects.

**Keywords:** economic contraction; consumption; employment; growth and productivity; Indonesia

**JEL Classification:** E21; E24; G01; O4

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## 1. Introduction

Previous studies such as Krugman (2000), Eggertsson & Woodford (2004), Ivan (2011), Mertens & Ravn (2014), and Korinek & Simsek (2016) showed that the decreasing aggregate demand would push the economy to the contraction zone with negative growth and low inflation rate. It is the opposite of the AFC of 1998 that generated negative economic growth with the hyperinflation rate. There are at least three reasons why a country needs to understand the so-called "economic position." One, it is necessary to identify the position of this contraction as an essential condition for formulating the appropriate prescription shielding the economy. This position description is vital to know the exact economic situation before the crisis hit it.

Two, the economic impacts of the contraction are indeed different to a country with productive and less-productive levels. Therefore, it needs a tool to describe a country's position before the contraction factor, like a pandemic, comes and hits. Three, a country must move from the sub-zero economic growth area to the positive zone and fully recover to achieve the position before the pandemic then creates economic growth faster than before.

This paper refers to the debt dynamic concept, a country in the position of productive when economic growth is higher than the interest rate. The latter is affected by the inflation rate. It implies that a country is at its productive site when its economic growth is above its inflation rate.

According to the formula of Quantity Theory of Money, Money Supply ( $M_{it}$ ) is equal to Price Level ( $P_{it}$ ) multiply by Quantity of Production ( $Q_{it}$ ) divide by Velocity of Money ( $V_{it}$ ). This equation is described as:  $M_{it} = \frac{P_{it} \cdot Q_{it}}{V_{it}}$ . This equation shows the increase of money supply, while the velocity of money remains can affect both price and quantity at different impact levels. As the productivity (Marginal Productivity of Labor or  $MPL_{it}$ ) is explained as the increasing of the quantity of production ( $dQ_{it}$ ) divided by changing the number of production factors, in the short-run, is labor ( $dL_{it}$ ) therefore the higher the quantity the more productive is. This equation is described as:  $MPL_{it} = \frac{dQ_{it}}{dL_{it}}$ . Both equations prove that economic growth is the necessary condition to show productivity but insufficient if it is not compared to the inflation rate.

This paper adopts the comparative percentage of economic growth and inflation rate as the indicator to show the 'position' of a country either in productive or less productive mode. Empirical data of Indonesia proves that during the productive site where the inflation rate was below economic growth (2016–2019), the poverty rate in Indonesia decreased significantly.

Positive comparison will never deliver the country's position when crises happen, like what has happened to Indonesia in 1963 and 1998 or recently during the global pandemic. Therefore, this paper separates the positive and negative values which represent normal economy and crises respectively from the absolute value of inflation rate per the economic growth. This paper utilizes the economic position to explain the economic situation and formulates the possible recovery

patterns. This paper utilizes the combination of the inflation rate and economic growth to explain the position of a country both in normal and crises situation. The novelty of this study is that it separates normal and crises with positive and negative in economic growth and the comparison of inflation and growth to describe productivity referring to the quantity theory of money.

In addition to comparing economic growth and inflation rate, this study also compares the quarterly economic growth between the latest quarter to the average previous four quarters. This comparison is to figure out the trend whether to increase or decrease. It also compares year-on-year economic growth of sectoral base between before and after the pandemic hit. This comparison describes the sector's position before and during the pandemic, either strong, incline, decline, and poor. The details of these two comparisons of the quarterly and yearly base are explained in the discussion.

These are several related references explaining economic crises and how it affects both economic growth and inflation rate. They are useful to show how the economic crises normally look like with negative economic growth and hyperinflation while some like pandemic is negative in economic growth but low inflation.

Bordo et al. (2001) conduct a study on crises using panel data of 120 years and 21 countries. Their study finds that the financial crisis had doubled since 1973 or the collapse of the Bretton Woods Agreement. The economic crisis was mainly related to the volatility of the exchange rate. The AFC of 1998 is one of the examples of this study's arguments. This study confirms that economic crises come more frequently but are quicker and less severe. This study argues that increasing the revenue side of the Current Account is more effective in reducing crisis probability than cutting the expenditure side of the Current Account. They find that the improvement of productivity (aggregate supply side) is effective in reducing the likelihood of crisis.

Summers (2000) explains that every crisis is different with its dissimilar factors from the trade deficit, competitive devaluations, asset-market, illiquidity financial market, panic buying, and others. They must be explained in many ways, and for international economic crises, the source of problems can be both from global imbalance and poor domestic economic performance. The latter affect the economic vulnerabilities. Fiscal and monetary discipline and in line with market dynamics are essential to maintain macroeconomic stability.

In 1998, Bridges argued that the contagious effect of economic crises in one region could affect another region. In his study, he found the impacts of the Asian Financial Crises on the European economy. One of the connecting factors is trade, and the undervalue of the exchange rate affects the trade balance due to the local currency depreciation. The other connecting factor is the long-run direct investment (Foreign Direct Investment) of Europe in Asia that must be adjusted and consolidated due to the financial crises in Asia.

In the 1930s Keynes argued that any economic crises come with structural reform, in addition to the countercyclical fiscal and expansionary monetary policy.

Omori (2014) shows that structural reform series occurred in Indonesia following the AFC 1998. She observed the reforms on privatization, banking supervision, and capital account liberalization, including foreign direct investment (FDI) inflows. Her study covers structural reforms analysis from the emerging Reform Era, including during the SBY two-period of the presidency.

Shipalana et al. (2020) show that the global pandemic decreases economic activities and suggests the developing country with large informal activities optimize the digital economy's role. This role will enhance the effectiveness of countercyclical fiscal policy and fiscal expansion options. Their study proves that the economic recovery process needs the role of global production and value-added networks. There are three major factors to stimulate the economy: the role of government, digital economy, and international networks. Government capacity in monetary and fiscal space will affect the time and appropriateness of the chosen policy. Their study proves that pandemic increases public debt per GDP due to the countercyclical of fiscal policy. It indicated the aggregate demand disruption from the household consumption rather than the aggregate supply problem with monetary policy as the solution. This paper applies total public debt per GDP of lower than 40 percent as its best fiscal criteria. From the external balance side, their study expects that the Balance of Payment will surplus or deficit depends on their closed or open economy decision.

Gupta & Jalles (2021) show that the fiscal budget has to work very hard during the pandemic to support poor household consumption and jumpstart the economy. Their study adopts 170 countries. They are classified as advanced and developing. The latter is divided into low-income, resource-rich and fragile states. Their analysis finds that the latter classification countries are facing more severe fiscal deficit consequences. In comparison, advanced countries face less revenue as the most dropped revenue due to the increasing non-formal activities in developing countries. They found that pandemics open the opportunity and interest for the states to reform their tax system. Therefore, particularly in developing countries, the tax reform likelihood increases as the correct response to the high pressure on both the declining revenue and the increasing expenditure (countercyclical fiscal budget)

Tankel et al. (2021) argued that pandemic impacts on socio-economic in Southeast Asia are asymmetric. Some member states of ASEAN successfully avoided the fatality rate while some have been walking through it. Some apply consistent measurements on people's mobility while others do not. At the regional level, ASEAN member states are working on establishing the ASEAN Regional Reserve of Medical Supplies for Public Health Emergencies for voluntarily earmarking the medical supplies in Southeast Asia towards future outbreaks. ASEAN is also creating ASEAN Strategic Framework for Public Health Emergencies for enhancing ASEAN's ability towards public health crises. Regardless of what kind of response measurement that one country applies to contain the pandemic, most Southeast Asian member states are at risk of returning to illiberalism, inward-looking policy, shortcoming democracy and political authoritarianism.

They argued that pandemic containment, including securing vaccine access, is necessary for economic recovery while export is the primary key factor for the sufficient condition. At this point, sectoral-wise, manufacture plays an essential element. Medium to long-run planning must cover human capital with proper public health and education system considering the new normal situation of the increasing role of the information and communication technology (ICT).

Halimatussadiyah et al. (2020) argue that economic recovery amid the global pandemic must adopt environmental justice and sustainable principles to protect the world from other pandemic threats. These principles are not working at the concept site but also in practice. Nowadays, the world trade demand and supply are walking towards the environment or green economy-led growth preferences. The global production network is not only about manufacturing production but also food supply chains. Pandemic has disrupted the global food chains; therefore, the economic recovery must prioritize the food chains recovery. Another example is the mitigation for waste management, as the quarantine policy has increased household consumption and waste. The latter also includes medical waste that significantly increases around the world due to the pandemic situation.

Verico (2021, p.12) describes that pandemic 2020 decreased Indonesia's economic growth and inflation rate while the AFC 1998 placed Indonesia's economic growth into the lowest contraction but hyperinflation. These two-contraction sources generate different effects on Indonesia's economy. These various sources of economic contraction need different policy responses. Therefore, there is a need to figure out and map them into a quadrant model to have a clear description and identification for the two. This map is essential before describing the crucial factors in a global pandemic.

## 2. Methodology

Based on the Debt Dynamic (Battaglini & Coate, 2008) and Quantity Theory of Money (QTM 1517 in Volckart, 1997) this paper adopts the proportion of inflation rate ( $\pi_{it}$ ) and economic growth ( $\delta_{it}$ ) as a tool to define and classify Indonesia's economy before and during the pandemic. This proportion is divided into two forms. One is the absolute value of proportion, and two is the positive or negative value representing either the economy in a normal or contraction situation. These two indicators, absolute value and the positive-negative sign, can map Indonesia's economy into four positions: normal productive, normal less-productive, contraction hyperinflation or hyper deflation, and contraction liquidity trap or demand problem.

This classification can be named Quadrant One ( $\frac{\pi_{it}}{\delta_{it}} < 1, \frac{\pi_{it}}{\delta_{it}} > 0$ ), Quadrant Two ( $\frac{\pi_{it}}{\delta_{it}} > 1, \frac{\pi_{it}}{\delta_{it}} > 0$ ), Quadrant Three ( $\frac{\pi_{it}}{\delta_{it}} > 1, \frac{\pi_{it}}{\delta_{it}} < 0$ ), and Quadrant Four ( $\frac{\pi_{it}}{\delta_{it}} < 1, \frac{\pi_{it}}{\delta_{it}} < 0$ ). The global pandemic places Indonesia's economic position from the strongest quadrant of normal productive (Quadrant One) to the scarce position of contraction demand problem (Quadrant Four). This paper provides map information of each year from 60 years of 1960–2019 of each quadrant. Quadrant

in this research is designed to follow the logic framework of economic growth to separate between normal (positive growth) and crises (negative growth) and hyperinflation and low inflation (liquidity trap).

This paper also introduces Indonesia's economic recovery scenario by sector from 2020 up to the first quarter of 2021. Indonesia announced the first infected case of C-19 on Monday, March 2nd, 2020, and the economic growth significantly declined from 1Q20 to 2Q20 from 2.97 percent to -5.32 percent. Since then, the economic growth increased to -3.49 percent in 3Q20 and -2.19 percent in 4Q20. As a result, Indonesia's annual economic growth decreased from 5.02 percent (2019–2020) to -2.01 percent (2020–2021). As the BPS–Statistics Indonesia regularly announces the Indonesia's quarterly economic performance in a two-month lag, this paper only covers the most recent update in 1Q21 with a -0.74 percent economic growth rate.

This paper provides the H-P frequency filter to define baseline if the public policy failed to contain the pandemic. It adopts McElroy (2008) that explained the accurate formulation of the H-P Filter. The original formula of the HP filter was defined as:

$$H(b) = \frac{q}{q + (1 - b)^4} \quad (1)$$

This  $H(b)$  formulation holds a symmetric coefficient, completed with the 1-  $H(b)$  low-pass filter and high-pass filter. This formulation was designed to estimate the cycles. This calculation applies low-pass; therefore, the high-pass factorization is easily determined. This calculation defends filter frequency of the H-P follows the ARIMA framework with both the polynomials and a constant variable.

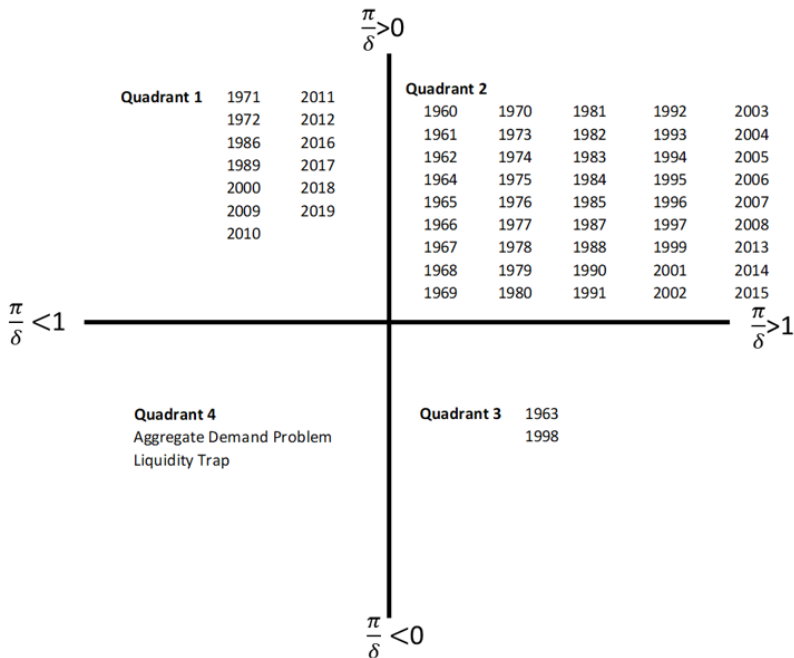
As for the economic recovery scenario, this paper provides a formula as follows:  $\delta_{1qt1} >, < \mu(\delta_{1qt0}, \delta_{4qt0})$  where  $\delta_{1qt1}$ : annual economic growth of 1Q21;  $\mu$ : average;  $\delta_{1qt0}, \delta_{4qt0}$ : economic growth from 1Q20 to 4Q20. This pattern is compared with the most previous of 2020 which formulates as follows:  $\delta_{4qt0} >, < \mu(\delta_{1qt0}, \delta_{4qt0})$ . If the annual growth rate of the latest quarter is higher than the average growth from the last four quarters, then the sector is classified as 'Increase' and 'Decrease'. The 'Increase' point shows that the latest quarter of economic growth is higher than the previous four quarters. This calculation indicates a potential trend to increase and the opposite explanation for the 'Decrease.'

As to complete this trend analysis, this paper also classifies the sectors into four categories: Strong (annual economic growth rate during and before the pandemic is above the total economic growth rate), Incline (annual economic growth rate after a pandemic is above the total economic growth rate while before pandemic is below it), Decline (annual economic growth rate after a pandemic is below the total economic growth rate while before pandemic is above it) and Poor (annual economic growth rate before and after a pandemic is below the total economic growth rate). Data in this paper are downloaded from the World Development Indicators of the World Bank, Bank of Indonesia Statistics, and BPS – Indonesia Statistics.

This paper combined the measurement of economic position with economic recovery scenario to describe the Indonesian economic patterns up to the latest quarter data.

### 3. Result and Discussion

This paper applies inflation to economic growth to identify Indonesia’s economy from 1960–2019. It uses economic growth and Consumer Price Index (CPI) for the inflation rate. This indicator is useful to map a country’s economy into four positions: productive (Quadrant One), less productive (Quadrant Two), hyperinflation or hyper deflation (Quadrant Three), and liquidity trap or demand problem position (Quadrant Four). The latter is the rarest case except for the high mass consumption level of a developed country such as Japan.



**Diagram 1: Economic Position of Indonesia 1960–2019**

Source: Author’s illustration based on the WDI Dataset, 2021

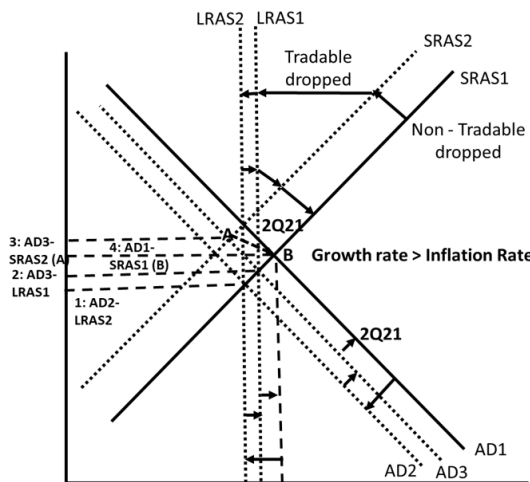
This diagram shows that in the last 60 years, Indonesia had a less productive position at 45 years and followed by a productive position at 13 years. These patterns must be changed into the other way around, where the productive years must be above less productive years. This pattern is essential as the world witnessed other advanced countries that successfully graduated from the middle-

income trap, such as Japan and South Korea. Based on data calculation, Japan has 50 percent or 30 out of 60 years from 1960–2019 as its productive years, while South Korea has even more with 37 out of 60 years.

As in contraction position ( $\frac{\pi_{it}}{\delta_{it}} < 0$ ), Indonesia had only experienced two years of contraction in 1963 and 1998. The latter is well known as the Asian Financial Crises, which made a massive change in Indonesia’s political economy. Indonesia never experiences the liquidity trap, whereas the inflation rate is below the economic growth rate yet in sub-zero zone caused by deflation or negative economic growth. The economic contraction in 2020 due to the global pandemic made Indonesia’s annual economy grows at -2 percent with a lower inflation rate in absolute value of 1.68 percent.

This global pandemic made Indonesia, for the first time, entered Quadrant Four ( $\frac{\pi_{it}}{\delta_{it}} < 1, \frac{\pi_{it}}{\delta_{it}} < 0$ ). Data shows that even South Korea, a high-income country, never experience the Liquidity Trap; even more, Indonesia as a developing country. However, this aggregate demand problem that is technically rare to happens must be faced by all developing countries, including Indonesia. Therefore, the impact of a pandemic on the economy is something new for any country. Developing countries such as Indonesia must learn fast to identify their economic problems and provide appropriate solutions.

The difference between the economic contraction during the pandemic and hyperinflation such as Indonesia’s economy during the Asian Financial Crises can also be illustrated below.



**Diagram 2: Aggregate Demand and Aggregate Supply of Economic Position**

Source: Author’s illustration based on AD-AS theorem, 2021

The Diagram 2 shows three sequencing scenarios following the impacts of pandemics on a country’s economy, including Indonesia: *Firstly*, decreasing

aggregate demand (AD1-AD3) due to the decreasing consumption. *Secondly* is the declining aggregate supply due to the limitation of people mobility (SRAS1-SRAS2). *Thirdly*, the elasticity changes from elastic to inelastic (LRAS1 to LRAS2) because of the disruption in global value chains, consisting of a global production network and a global service network.

Therefore, considering the three scenarios of the contraction above, the economic recovery will follow both factors: domestic and global. Global economic recovery will be asymmetric within countries depends on how each country contains the pandemic. This recovery challenges the quality of public health policy of each country. This scenario will affect the elasticity of the long-run aggregate supply. Domestic economic recovery will come from two sources: Increasing aggregate supply, which indicates productivity jumpstarting, and increasing aggregate demand represented by the increasing Consumer Confidence and Retail Sales Index.

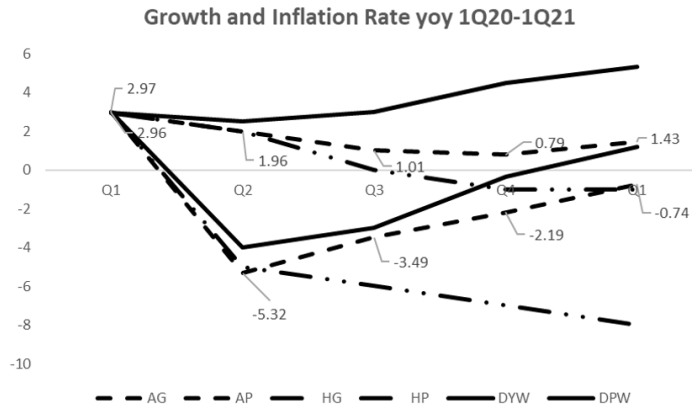
The completeness indicators for productivity and consumption are the increasing labor absorption characterized by the decrease of open unemployment. Unlike the Asian Financial Crises, economic recovery from the global pandemic depends on how long the pandemic turned into an endemic and how the world contains it. The necessary condition depends on how the global public policy provides high efficacy vaccination to prevent and effective medicine to cure.

At the positioning platform above, it is seen that the AFC placed Indonesia in Quadrant Three with the absolute value of proportion at 4.45 in a negative zone. On the contrary, the global pandemic put Indonesia at Quadrant Four with the absolute value of proportion at 0.84 in a negative zone. For the first time, Indonesia experience entering the Quadrant Four, which feels like in Liquidity Trap situation. In this situation, theoretically, monetary expansion is less effective to boost investment and current account; therefore, the economy depends much on consumption that needs fiscal stimulation from government expenditure.

In this pandemic situation, as the only source of economic growth, fiscal policy works extremely hard. The countercyclical, whereas annual budget deficit must expand above three percent per GDP, is the most rational option to boost the economy. Nevertheless, this fiscal expansionary is sufficient condition while the necessary condition remains health issues that make this quadrant uncertain and challenging. The next stage is to prove the diagram simulation above with the detailed data in Indonesia's economy.

This figure shows that in absolute value, the inflation rate during the pandemic, which makes a negative zone, is lower than that of economic growth that expressed as  $\frac{\pi_{it}}{\delta_{it}} < 1$ ,  $\frac{\pi_{it}}{\delta_{it}} < 0$ . Quarterly data from 1Q20 to 1Q21 (the most recent data when this article is written) confirmed that inflation rates are low while economic growth is not too low compared to when the AFC 1998 hit Indonesia (see figure below).

This paper applies the H-P Filter and found that the Indonesian fiscal had been worked very hard to support the economy; therefore, both economic growth and inflation rate were better than that of 'business as usual' or baseline scenario.



**Figure 1: Patterns of Economic Growth and Inflation Rate (annual base) 1Q20–1Q21**

Source: Author's calculation based on the WDI Dataset, 2021

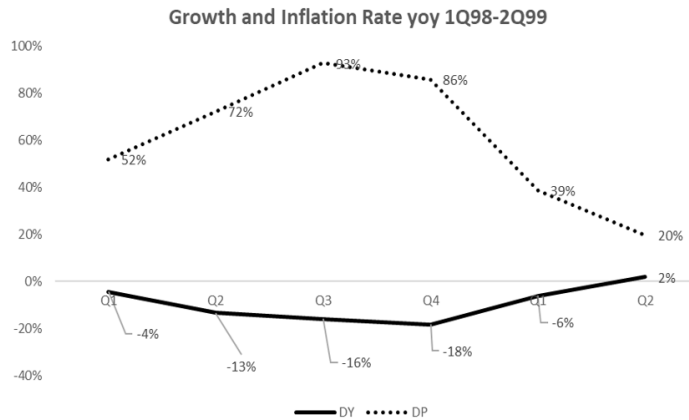
Note: AG: Actual Economic Growth; AP: Actual Inflation Rate; HG: HP Filter of Economic Growth; HP: HP Filter of Inflation Rate; DYW: Potential Economic Growth; DPW: Potential Inflation Rate

The H-P Filter proved the latter. The lower inflation and economic growth rate indicate that the global pandemic hit the economy on aggregate demand and negatively affects the aggregate supply.

The economic recovery pattern shows that the Indonesia's economy had recovered very quickly and less severely. It directly hit bottom at 2Q20 with -5.32 percent of economic growth and 1.96 percent of the inflation rate. This paper compares the economic recovery process and hardness to the AFC 1998 on the Indonesia's economy. The next figure confirms that its economic recovery process at the quarterly base was more severe with skyrocketing inflation rate (delta deflator), with the highest at 93 percent in 3Q98, and very low economic growth with the lowest at 4Q98 at -18 percent.

The economic recovery in 1998 was slow and more severe compare to those during the global pandemic. During the pandemic 2020, economic growth touched the bottom at 2Q20 and increased even remained at the contraction zone afterward. The AFC forced the Indonesian economy to get into more deep negative contraction to -13 percent (2Q98), -16 percent (3Q98), and the lowest at -18 percent (4Q98) with skyrocketing inflation rate (delta deflator) at 72 percent, 93 percent and 86 percent respectively. The deep slump makes the pattern of Indonesia's economic recovery during the AFC 1998 look like a U-shape, while during the global pandemic, it follows the V-shape.

The combination of deep economic growth dropped and hyperinflation in 1998 put the Indonesian political economy at risk as what also had happened in 1963. These two contraction situations are different from the global pandemic 2020 with much lower inflation and higher economic growth. Both generate less severe economic impacts on people's welfare; therefore, structural reforms



**Figure 2: Patterns of Economic Growth and Inflation Rate (annual base) 1Q98–2Q99**

Source: Author's calculation based on the WDI Dataset, 2021

Note: DY: Actual Economic Growth; DP: Actual Inflation Rate

are more welcome and effective. Unlike the AFC 1998, its aggregate supply problem fits with monetary expansion, and the global pandemic 20 needs fiscal countercyclical. Therefore, in the AFC 1998, public policy efforts were more on international debt issues. In the pandemic 2020, there was more fine-tuning between tax reforms and taper tantrums during the recovery.

During the pandemic, the quality of economic growth was better than during the AFC because the open unemployment rate has decreased from 9.77 million (7.07 percent) in August 2020 to 8.75 million (6.26 percent) in February 2021. The majority of these 1.02 million job opportunities were available for formal activities. This indicator confirmed the success role of the fiscal budget as typically its multiplier generates formal workers. Government expenditure had played a very essential role in defending consumption and supporting the aggregate supply as it was the second source of economic growth at 2.96 percent after the export at 6.74 percent. Since the AFC, Indonesian open unemployment increased consistently until 2006. It indicates that the economic growth had achieved a positive zone but remain unable to create jobs.

This paper provides a zoom-in analysis of the pandemic effects on the Indonesian economy by sector by quarter. As explained above, this paper applies a combination of measurements of annual economic growth to identify the economic position in terms of growth (Strong, Incline, Decline, and Poor) and trend (Increase and Decrease).

Table 1 shows that annual growth patterns of 4Q20 compared to the average annual growth of 1Q20-4Q20 showed positive growth sectors with an increasing trend: Health, Information Communication, and Technology (ICT), Water Utilities, Agriculture, Mining. These champion sectors confirmed that the pandemic successfully forced human mobility (Health, ICT, and Water) and increasing

international price (Mining) and resiliency (Agriculture).

Meanwhile, sectors with a rising trend, refers to comparison and is defined as 'Increase' but still growing negatively: Trade, Accommodation, Food & Drink, and Transportation. Sectors that depended on people's mobility received high impact: Construction and Firm Service, while the medium impact was Financial Service, Education, and Real Estate. Two sectors remain weak before and during a pandemic: Manufacture and Electricity and Gas. Global pandemic forces the Indonesian economy to depend on small share value-added sectors of Health and ICT while big share sectors are mostly hibernated.

**Table 1: The Comparison of Economic Growth of 4Q20 and Average 1Q20–4Q20**

4Q20	Decrease	Increase
Strong	<b>Financial Service</b> <b>Education</b> Administration Gov <b>Real Estate</b>	<b>Health &amp; Social Activities</b> <b>ICT</b> <b>Water</b>
Incline		<b>Agriculture</b> <b>Mining</b>
Decline	Construction Other Service Firm Service	Trade Transportation Accommodation, F&B
Poor	Manufacture Electricity & Gas	

Source: Author's calculation based on the WDI Dataset, 2021,

Note: \*bold letter means positive economic growth

With similar measurement formula, economic position in 1Q21 as provided in Table 2 shows that in the first quarter of 2021, the Indonesian economy had given more confidence with the potential growing (positive trend even in the negative zone) in the example are Manufacture, Construction, and Utilities of Electricity and Gas. Meanwhile, the previously strong and champion sectors of Health, ICT, and Water remained positive but started to experience a declining trend. This indicates that people's mobility had started to increase in early 2021. Some related indicators such as Purchasing Managers Index (PMI), Consumer Confidence Index (CCI), Retail Sales Index (RSI) confirmed these findings.

In 1Q21, Health and ICT champion sectors had moved from Increase to Decrease even though they remain in the positive zone. This phenomenon indicated that people had started to move offline; therefore, online activities such as Work from Home were a little bit decreased. The Indonesian Agriculture Sector remains the most resilient sector during the pandemic while Trade, Transportation, and Food & Beverage were still increasing even though still in the negative zone. Hypothetically, these three sectors, which also increase in 4Q20, had obtained benefits from the role of the digital economy. In particular retail products, Trade Sector receives a demand from e-commerce platforms, and Transportation obtains benefit from ride-hailing platforms and Food & Beverages from on-demand platforms.

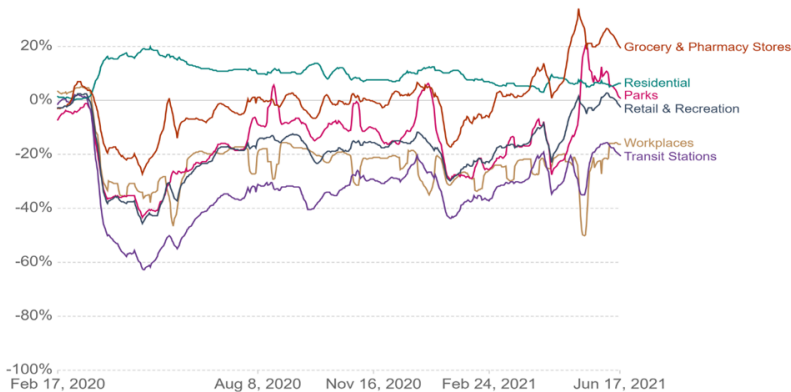
**Table 2: The Comparison of Economic Growth of 1Q21 and Average 1Q20–4Q20**

1Q21	Decrease	Increase
Strong	Financial Service Education Administration Gov <b>Real Estate</b> <b>Health &amp; Social Activities</b> <b>ICT</b>	<b>Water</b>
Incline	Mining	<b>Agriculture</b>
Decline	Other Service	Trade Transportation Accommodation, F&B Construction Firm Service
Poor		Manufacture <b>Electricity &amp; Gas</b>

Source: Author’s calculation based on the WDI Dataset, 2021,  
Note: \*bold letter means positive economic growth

How did the number of visitors change since the beginning of the pandemic?, Indonesia

This data shows how community movement in specific locations has changed relative to the period before the pandemic.



Source: Google COVID-19 Community Mobility Trends – Last updated 21 June, 16:03 (London time) OurWorldInData.org/coronavirus • CC BY  
Note: It's not recommended to compare levels across countries; local differences in categories could be misleading.

**Figure 3: People Mobility in Indonesia from February 2020 to June 2021**

Source: Google COVID-19 Community Mobility Trends - Last Updated 21 June, 16:03 (London time)

Note: It’s not recommended to compare levels across countries; local differences in categories could be misleading.

The overshoot economic growth in 2Q21 has two sufficient conditions: low base effect as the lowest contraction in 2020 happened in 2Q20 and seasonal demand-driven of a long-holiday break in 2Q21. The decrease of open unemployment from August 2020 to February 2021 occurred in almost all provinces in Indonesia, including Sumatera and Java, as the largest worker population in

Indonesia contributed to the increasing consumption in 2Q21. Nevertheless, the necessary condition for the overshoot economic growth above remains lies in the pandemic containments. Until this paper is written, the number of pandemic infectious in Indonesia has been increasing up to more than 15 thousand people per day, which is more than the highest daily infectious number in 2020. This resurging number will affect the overshoot of 2Q21, in particular at the end of June 2021.

The Google Community Mobility Trends (Figure 3) proved that people's mobility mostly decreased from January to February 2021 and increased since the end of February and achieved its highest point in May 2021 due to the long holiday break.

A necessary condition for overshoot growth in 2Q21 and stable increase growth in 3Q21 is infectious numbers or positivity rate. As shown in the figure above, in May–June 2021, people's mobility increased and resurged in the positivity rate in Indonesia. This necessary condition must be contained to secure economic growth momentum. In 2Q21, the increasing positivity rate's impact is low as it started in mid-June, but a different story for the 3Q21.

#### 4. Conclusion

This paper proposes the usage of economic position to map Indonesia's economy both during normal situation (positive economic growth) and contraction (negative economic growth). It argues that combining the absolute value of the inflation rate to economic growth and their negative shock is useful to figure out the economic position. This paper also describes the patterns of economic performance by sector with the application of economic position. The latter applies trend logic through the comparison of annual sectoral economic growth by quarter. These patterns helped us to understand the trend of economic recovery during the pandemic. There are two conclusions: one, the pandemic generates aggregate demand shock with a low inflation rate during the economic contraction. Two is as long as the people mobility is limited; champion sectors are mostly the ICT and digital-based economy while the opposite the vital sectors turn back into before the pandemic.

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