# Analysis of the Influence of Investment, Inflation and Consumption on GDP in Indonesia in 2013-2021

Lailatul Khomariyah<sup>1</sup>,Chika Devina Fitria Kusuma Dewi<sup>2</sup>,Vina Nur Anis Sayuti<sup>3</sup>,Putri Vadilla Noviyanti<sup>4</sup>,Muhammad Nafi Widhiatmoko<sup>5</sup>

1,2,3,4,5</sup> Faculty of Economics and Business, Jember University, Indonesia

## **Abstract**

Economic development in a country has the goal of achieving social welfare, which is done with a high-growth economy. This is important because both of them have a mutually sustainable relationship between national and regional development which creates stable, strong and equitable economic growth for all parties. However, the country's economy was built not to be directed solely to economic growth. As for the calculation of economic growth itself, it can use one of the variables, namely the measurement of GDP growth. The purpose of this study is to determine the impact of investment, inflation and consumption on Indonesia's GDP from 2013 to 2021. The data used in this study are time series data and secondary data are from Bank Indonesia, Indonesia Economic and Financial Statistics (SEKI), World Bank and scientific journals. The Ordinary Least Square (OLS) approach was used in this investigation. Investments have a long-term favorable impact on GDP, therefore investments play an important role in increasing the economic growth and production capacity of the country. Indonesia's GDP variable, on the other hand, is not considerably impacted by inflation that occurs within the nation. High inflation does not significantly affect economic growth. However, it is still important for the government to maintain price stability and control inflation so that it does not have a negative impact on the economy. Consumption and GDP variables exhibit a strong and positive correlation. An increase in consumption will contribute significantly to GDP growth.

**Keywords:** Investment, Inflation, Consumption, GDP,Indonesia **JEL Classification Code:** C01,E44, E51

Received: July 1,2022 Accepted: October 1,2022 DOI: 10.54204/TMJI/Vol712022009

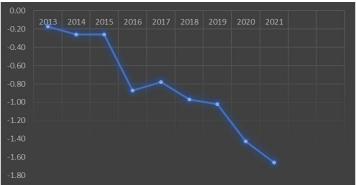
# **Background**

Inflation based on pressure on Production Costs or what is known as cost-push inflation. This inflation occurs as a result of continuous increases in production costs until inflation occurs. With an increase in production costs, there are two possibilities that will be carried out by producers, one of which is by increasing the price of their product with the same number of offers or another way is by increasing the price of their product due to the amount of production (Tetik & Bilgin, 2022).

Inflation caused by a deficit of the Budget. This inflation occurs when the ruling government spends more money than it is getting through revenue and other resources. Inflation itself is divided into three groups based on the level of increase in prices prevailing in society (Solorza, 2021). Creeping Inflation (Creeping Inflation) with a value of <10%, based on his explanation, if this happens in society, it is actually needed to boost the economy itself through encouraging producers who produce goods and services (Fahlevi, Ernayani, Lestari, Hubur, & Wahyudi,

2020). Inflation in the moderate/medium category (moderate/galloping inflation) shows the amount of inflation with a percentage of 10-100%, based on the percentage of things that will happen in the community is the price in circulation will increase very quickly and the increase is relatively high.. High Inflation (Hyper Inflation) with a value of: > 100%, based on the value of the amount this will indicate that people don't want to spend their money because the value on the market has fallen very sharply, so people choose to exchange it for goods (Cobb, Spray, Daily, Dossey, & Angtuaco, 2021).

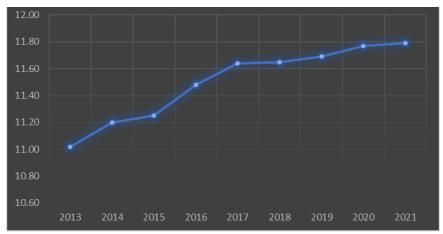
Two types of inflation can be recognized based on their origin or source. Domestic Inflation this inflation occurs as a result of deficits in financing and state spending which can be seen through the state budget. Import Inflation or what is referred to as Imported Inflation, this inflation occurs because there are countries that are trading partners of that country and experience price increases abroad. It could also happen if a nation's currency depreciates in comparison to one of its principal trading partners, in which case it can have an effect in the form of an increase in production costs, although this effect can have a direct or indirect effect. (Girdzijauskas, Streimikiene, Griesiene, Mikalauskiene, & Kyriakopoulos, 2022). The following is inflation development data in Indonesia from 2013 to 2021:



**Graph 1.** Inflation in 2013 - 2021

Graph 1 shows data on inflation in Indonesia for the period from 2013 to 2021. During that period, there were continuous fluctuations in inflation that rose and fell for nine consecutive years. The highest peak of inflation was recorded in 2013 with a percentage of -0.17; while the lowest inflation was recorded in 2021 with a percentage of -0.166. Based on the graph, average inflation during the period was -0.82.

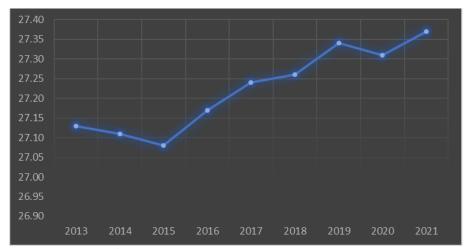
Investment is defined as expenditure made to acquire capital goods and production equipment. The main purpose of investment is to replace or increase capital assets in the economy. Future goods and services will be produced with this investment (Sukirno, 2011). A positive net increase in capital goods is referred to as investment. Real investment and financial investment are the two main forms of investment. Real investment includes spending to acquire capital goods that are durable and used in production activities. Meanwhile, financial investment involves buying financial instruments such as stocks, bonds and other debt instruments. The following is investment development data in Indonesia from 2013 to 2021:



Graph 2. Investment Years 2013 - 2021

Graph 2 shows investment fluctuations in Indonesia over a 9-year period from 2013 to 2021. Investment has fluctuated, with the highest investment rate of 11.79 in 2021, while the lowest investment rate occurred in 2013 of 11.02. Based on the data in Figure 1, it can be concluded that the average investment value of the period was 11.50. Investment is not mere speculation without logic, therefore analysis is required in the investment process. There are two types of analysis that are commonly used in investing, namely: Fundamental Analysis and Technical Analysis.

The primary goal of fundamental analysis is to comprehend the inherent worth of an investment and ascertain if the value is underestimated (less than its actual worth) or overestimated (more that its actual worth). This analysis aims to determine the right time to make a transaction based on price movement patterns that have occurred in the past. The two analyses described above are the analyses used by an investor or a trader in determining their investment decisions to be more informative based on systematic analysis. (Venkatesh, SUDHEER, & Paramasivan, 2021). In the field of economics consumption refers to the utilization of goods and services to meet the requirements and contentment of individuals (the utilization of goods and services to satisfy human needs). In this context, production acts as a means to meet consumption (Gough, 2020). Consumption in this case has an understanding of final or finished goods and services which are needed to meet human needs. The final goods and services referred to in the sentence above are goods and services that are ready for consumption by an individual. Consumer goods themselves can be divided into two types, namely disposable consumer goods and consumer goods that can be used repeatedly (Kumar, Luthra, Mangla, & Kazançoğlu, 2020). The following is consumption development data in Indonesia from 2013 to 2021:



**Graph 3.** Consumption in 2013 - 2021

Graph 3 shows fluctuations in consumption in Indonesia over a 9-year period from 2013 to 2021. Consumption has increased and decreased, with the highest consumption rate of 27.37 in 2021. While the lowest consumption rate was 27.08 in 2015. Based on graph 1, the average consumption during that period was 27.22. There are several types of consumption, namely: Household Consumption, Corporate Consumption, State Activities Consumption.

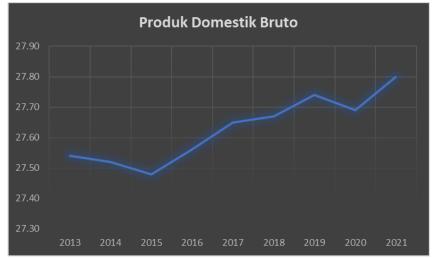
Income has a significant effect on a person's consumption level. The higher a person's income, the more goods or services consumed, and vice versa (Akhtar, R., Sultana, Masud, Jafrin, & Al-Mamun, 2021). Education has a strong influence on a person's mindset in consumption. Usually, the level of consumption tends to be higher for those who have a higher level of education, and vice versa when viewed from a lower level of education (Wolcott, McLaughlin, Hann, Miklavec, Beck Dallaghan, Rhoney, & Zomorodi, 2021).

Prices for goods or services can affect the level of consumption of a person. When the price for a good or service rises, there is a tendency to decrease the level of consumption for a person, and vice versa. The number of members of a family can affect the level of consumption (Choi & Johnson, 2019). Families with more members tend to have higher consumption levels, and vice versa. The need for goods and services differs between a man and a woman, which can also affect the level of consumption. Some individuals have higher preferences and lifestyles, both in choosing their clothing style or other aspects. This can cause their consumption levels to exceed individuals where they pay less attention to style (Fine, Sojo, & Lawford-Smith, 2020).

Habits or things that are commonplace and traditions in a place can also have an influence on the consumption pattern of the people. According to classical economists, interest rates have an influence on consumption intensity. They believe that the interest rate can affect the level of savings and will also directly affect consumption. Interest rates that are higher than in other countries or places can encourage savings and reduce consumption levels (Yue, Sheng, She, & Xu, 2020).

The Gross Domestic Product (GDP) is the outcome of the complete quantity of ultimate goods and services generated at market rates. The weakness of GDP itself as a measure for calculating economic growth is that it is global in nature and does not reflect the welfare of the population (Korneta & Rostek, 2021). According to Mankiw (2009) GDP has the meaning that a collection of products or services' market value that can be created or in other words, can be produced in an economy in a certain period of time is used to measure and monitor the economic development of a region. GDP has a macroeconomic dimension when assessing the state of a country.

Therefore, GDP is often used as the main indicator to assess economic development within a country. The following is data on the development of Gross Domestic Product from 2013 to 2021:



**Graph 4.** Gross Domestic Product 2013 – 2021

Graph 4 shows that the development of GDP in Indonesia for 9 consecutive years from 2013 to 2021 experienced ups and downs, with the highest GDP in 2021 of 27.80, while the lowest GDP in 9 consecutive years occurred in 2015 of 27.048. Based on graph 1 above, the average result (mean) is 27.63. This study aims to determine the resulting impact or influence between Investment, Inflation, and Consumption on GDP in Indonesia in 2013-2021

# **Literature Review**

One of the most significant components of social life today is the economy, especially when considered in the context of a nation's growth and development, the growth factor and also economic development are important indicators in order to measure the success of a country (Bertello, Bogers, & De Bernardi, 2022). In accordance with the statement of Sukirno (2011), through observing the level of economic growth that occurs every year, one can assess the achievement and success of a country in managing its economic activities, both in a short period and in efforts to build a long-term economy. Meanwhile, Wahyunti (2020), states that economic development also reflects economic activity that can increase people's income within a certain period of time. Economic activity usually involves the use of factors of production to produce output, which ultimately provides rewards to the owners of the factors of production as a form of remuneration.

Economists in this case argue that economic growth in Indonesia is related to the level of consumption of the Indonesian people themselves. In this scenario, the utilization by the populace will surge the requirement for merchandise and amenities. As the demand for goods and services within the industry continues to rise, it will inevitably stimulate the economy to enhance its production capabilities, as a result, this will lead to a surge in the GDP (Wiraguna, Santiago, & Redi, 2023).

Sustainable economic growth is associated with the important role of the investment sector because this sector's contribution to economic growth is very significant. Increased investment is the main driver of strong economic growth, which in turn has a favorable effect on global

economic expansion, in accordance with the findings put forward by Pratami, Feriyanto, Sriyana, & Pratama (2022). Then it is also explained that this investment will increase the amount (stock) of capital. With an increase in investment, there will be a domino effect involving an improvement in GDP. The growth of investment itself will have the effect of invested capital or capital formation which will have an impact on increasing the production of a good or service. As a result, this production growth will contribute to an increase in overall GDP (Widarni & Bawono, 2021). Then talk about inflation itself and its effect on GDP. According to Sukirno (2011), inflation is one of the country's biggest economic problems. One of the causes of inflation itself is the slow growth of the economic sector. Bank Indonesia stated that abnormal inflation would cause uncertainty in decision-making among economic players, which would eventually lead to a slowdown in economic growth itself.

Increased inflation will certainly have several negative impacts before something even worse occurs, namely a crisis. One of the negative impacts is reduced or even decreased investment in products, which then leads to a decline in economic activity. This decline can contribute to an increase in unemployment if it occurs, and also negatively affect the competitiveness of export products with competitors from other countries and deteriorate the balance of payments, as stated by Irawan & Alamsyah (2021). Inflation that is not handled properly will certainly have a major impact on a country's economic growth and also the welfare of the people themselves. However, inflation itself is still needed if it is handled or held in the lowest category, bad things will happen if inflation is reversed. In this case, household consumption has a very significant impact on national income growth. In Indonesia alone, household expenditure contributes more than 50% of national income. This consumption also plays an important role in determining economic fluctuations from time to time. Overall, public consumption habits have a significant impact on Indonesia's long-term ability to expand its economy (Tayibnapis, Wuryaningsih, & Gora, 2021). Inflation is a symptom that the general price level is continuously increasing. Inflation can occur when the price increases for a number of products widely, not just for one or two products (Dharma, Shabrina, Noviana, Tahir, Hendrastuty, & Wahyono, 2020). Regarding the features of inflation, it is characterized by the general rise in commodity prices in society, which is brought on by imbalances and changes in a number of variables. These factors include commodity purchasing programs (directly related to production and prices), the amount of money circulating in the society, and income disparities among individuals. This description aligns with the explanation provided by Hernandez, I., Good, C. B., Cutler, D. M., Gellad, W. F., Parekh, N., & Shrank, W. H. (2019).

According to Sukirno (2011), inflation can be categorized into three forms of causes. Demand-pull inflation, also known as inflation caused by demand pressures, arises when the demand for products and services as a whole increases, leading to inflationary pressures. This scenario occurs when there is an increase in consumer requirement while the provision of commodities and amenities stays relatively constant. As a result of the law of demand, prices automatically increase as demand outpaces supply, ultimately leading to inflation. If this continues to occur, prolonged inflation will become a scourge for a country. The way to overcome this is by adding new performance by opening new capacities.

After conducting an extensive review of the available literature, we formulated the subsequent supposition :

- H1. Inflation Affects GDP
- H2. Investment affects GDP
- H3. Consumption affects GDP

#### **Research Methods**

This investigation utilizes time series information obtained from diverse sources such as Economic and Financial Statistics Data from Bank Indonesia, The World Bank, and academic publications. The Ordinary Least Square (OLS) technique is employed to scrutinize the correlation between the reliant and autonomous variables. The primary objective of this study is to determine if there is a correlation between inflation, investment, and consumption on the Gross Domestic Product (GDP) of Indonesia from 201 through 2021.

## **Results And Discussion**

GDP Growth, Investment, Inflation, and Consumption in Indonesia are presented in table 1.

Table 1. GDP Growth, Investment, Inflation, and Consumption in Indonesia

Year	Country	GDP	Investment Inflation		Consumption
2013	Indonesia	27,54	11,02	-0,17	27,13
2014	Indonesia	27,52	11,20	-0,26	27,11
2015	Indonesia	27,48	11,25	-0,26	27,08
2016	Indonesia	27,56	11,48	-0,87	27,17
2017	Indonesia	27,65	11,64	-0,78	27,24
2018	Indonesia	27,67	11,65	-0,97	27,26
2019	Indonesia	27,74	11,69	-1,02	27,34
2020	Indonesia	27,69	11,77	-1,43	27,31
2021	Indonesia	27,80	11,79	-1,66	27,37

Based on table 1, in general it can be described the economic conditions in Indonesia. In order to obtain more accurate results, influence estimation is carried out. Table 2 displays the results of the examination of data normality conducted before examining the association between variables as part of hypothesis testing.

**Table 2.** Normality test Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
GDP	9	0.8032	0.3704	0.94	0.6236
Investment	9	0.3175	0.4753	1.76	0.4151
Inflation	9	0.7778	0.5058	0.53	0.7667
Consumption	9	0.9871	0.1631	2.32	0.3127

As per the normality test conducted in the study, teh GDP factor's likelihood value is 0.6236 (> 0.05), indicating that the model is distributed normally. Similarly, the investment factor's likelihood value is 0.4151 (> 0.05), implying that the model is distributed normally. The inflation factor's likelihood value is 0.7667 (> 0.05), which means that the model is distributed normally. Moreover, the consumption factor's likelihood value is 0.3127 (> 0.05), indicating that the model

is distributed normally. Subsequently, we carried out a multicollinearity test, and the outcomes are shown in table 3.

<b>Table 3.</b> Multicollinearity Te
--------------------------------------

Variable	VIF	1/VIF
Inflation	9.78	0.102278
Investment	8.20	0.121954
Consumption	7.11	0.140689
Mean VIF	8.36	

The test for multicollinearity shows that there is no multicollinearity according to the table mentioned above, as the VIF value is <10. Therefore, it can be inferred that a VIF value <10 does not result ini multicollinearity. The inflation variable has a value of 9.78, the Investment variable has a value of 8.20, and the Consumption variable has a value of 7.11. Thusm it can be deduced that the model does not display any signs of multicollinearity since the VIF values is <10.

**Table 4.** Heteroscedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity			
Ho: Constant variance			
Variables: fitted values of GDP			
chi2(1)	3.40		
Prob > chi2	0.0652		

In this study, the heteroscedasticity test showed a probability value of 0.0652 (<0.05) meaning that there was no heteroscedasticity in this estimation model.

**Table 5.** Partial Test (t test) Regression of GDP Investment Inflation Consumption

Source	SS			df		MS	MS	
Model	0.092809824			3		0309366	030936608	
Residual	0.	0.001345731		5		0002691	000269146	
Total	0.	0.094155556		8		0117694	011769444	
Number of obs = 9								
F(3,5) = 114.94								
Prob > F = 0.0000								
R-squared = 0.9857								
Adj R-squared = 0.9771								
Root MSE = $.01641$								
GDP	Coef.	Std. Err.	t		P> t	95% Conf.	Interval	
Investment	-	0.0597352	-0.70		0.515	-	0.1117143	
	0.0418398					0.1953939		
Inflation	0.0037022	0.0346339	0.11		0.919	-0.085327	0.0927315	
Consumption	1.134802	0.1464476	7.75		0.001	0.7583466	1.511258	
_cons	-2.781154	3.798147	-0.73	•	0.497	-12.5446	6.982294	

In this study it was found that partially, the Investment variable and the Inflation variable did not significantly affect the GDP variable, with the probability t of the Investment variable 0.515 and the probability of the Inflation variable 0.919. This is demonstrated by the probability value of t for the two variables being more than  $\alpha$  (0.05). In other words, there is not enough evidence to

state that Investment and Inflation have a significant effect on GDP. However, the Consumption variable is proven to significantly affect the GDP variable. This is indicated by the probability value t 0.001 which means it is smaller than  $\alpha$  (0.05) for the Consumption variable. Therefore, there is enough evidence to conclude that consumption has a significant effect on GDP. In the R2 Test or Coefficient of Determination the GDP variable is influenced by the Investment, Inflation, and Consumption variables of 97.71% while the remaining 2.29% is influenced by other variables outside the research.

After developing the model, a significance test was carried out to determine the effect of significant variables. Judging from the F test where this test was carried out to determine the magnitude of the influence of the independent variables on the dependent variable together so that three hypotheses were found as follows:

H0 = There is no discernible relationship between GDP and inflation.

H1 = There is a considerable relationship between GDP and inflation.

H0 = There is no discernible relationship between GDP and investment.

H1 = The relationship between investment and GDP is considerable.

H0 = There is no discernible relationship between GDP and consumption.

H1 = There is a considerable relationship between GDP and consumption

Based on the results of the regression analysis, the probability value for the F statistic is  $0.0000 < \alpha = 0.05$ . Therefore H0 is rejected and H1 is accepted, this shows that there is a significant effect of the Investment, Inflation, Consumption variables on GDP.

The statistical analysis' findings demonstrate that investment has a long-term, positive yet large impact on GDP, but has a prominent effect simultaneously. Over a long period of time, Investment has a t probability of 0.515, which means Investment can cause a change of 0.51% in GDP. The relationship between investment and Gross Domestic Product (GDP) has a positive trend, indicating that increased investment policies implemented by the government can have a positive impact on Indonesia's GDP growth if managed effectively. Indonesia's natural resources are still the main attraction compared to other ASEAN countries. The government must use the people's will to improve the quality of infrastructure and human, knowledge, skills, and physical resources. However, currently there are still deficiencies in professionalism and public administration in the Investment sector in accordance with the Investment Law. Even though the investment ratio in Indonesia is still low compared to other countries in Southeast Asia, an increase in this ratio has a significant impact on the development of Indonesia's GDP, indicating that the multiplier effect has a positive contribution to GDP growth.

Using the outcomes of the statistical analysis, the Inflation variable has no significant effect on GDP. The t-test shows that the probability of the inflation variable is 0.919, which means that inflation only contributes 0.91% to changes in GDP. These results support previous studies which show that inflation has no significant effect on economic growth in Indonesia. Therefore, the government can continue to encourage economic growth without worrying about rising inflation caused by this growth. However, the government also needs to maintain inflation stability so that it remains within the set target.

The statistical research that was conducted revealed that the consumption variable has a positive and significant impact on GDP. The probability of the Consumption variable is 0.001, which means that when Consumption increases, GDP also increases. This assertion fundamentally supports John Maynard Keynes' theory of consumption, which contends that factors relating to a society's overall income level have an impact on how much people consume. Keynes also argued

that there is a minimum consumption level (autonomous consumption) that must be met by the community, and consumption will increase when income rises. This is in line with the research results which show that there is a significant influence between income and consumption levels. Based on the Stata calculations, the study concluded that long-term economic growth is positively impacted by investments. According to the outcomes presented, the likelihood of investing stands at 0.515, which suggests that over time, investing could result in an alteration of about 0.51% in the GDP. Although the effect is not statistically significant, it is important to remember that investment plays an important role in increasing a country's economic growth and production capacity.

The statistical analysis indicates that the inflation factor does not exert a noteworthy impact on the GDP factor. An inference that can be made from the t inflation probability value of 0.919 is that changes in inflation will only have a 0.91% impact on changes in GDP. This shows that high inflation does not significantly affect economic growth. However, it is still important for the government to maintain price stability and control inflation so that it does not have a negative impact on the economy.

The findings of the statistical estimation test revealed a positive and substantial link between the variables for consumption and GDP. Judging from the Consumption probability value of 0.001, it can be concluded that an increase in Consumption will contribute significantly to GDP growth. This is consistent with consumption theory, which states that the level of consumption depends on people's incoome. With this positive and significant influence, an increase in consumption can be a driving force for economic growth when combined with other factors that support this growth.

## Conclusion

Investment have a favorable effect on GDP in the long run, so investments play a key role in acceleration economic growth and increasing the country's production capacity. In Indonesia, the GDP variable itself is not considerably impacted by inflation. High inflation does not significantly affect economic growth. However, it is still important for the government to maintain price stability and control inflation so that it does not have a negative impact on the economy. Consumption and GDP variables are positively and significantly correlated. An increase in consumption will contribute significantly to GDP growth. An increase in consumption can be a driver of economic growth when combined with other factors that support the growth

# References

- Akhtar, R., Sultana, S., Masud, M. M., Jafrin, N., & Al-Mamun, A. (2021). Consumers' environmental ethics, willingness, and green consumerism between lower and higher income groups. Resources, Conservation and Recycling, 168(1), 1-10.
- Bertello, A., Bogers, M. L., & De Bernardi, P. (2022). Open innovation in the face of the COVID-19 grand challenge: insights from the Pan-European hackathon 'EUvsVirus'. R&D Management, 52(2), 178-192.
- Choi, D., & Johnson, K. K. (2019). Influences of environmental and hedonic motivations on intention to purchase green products: An extension of the theory of planned behavior. Sustainable Production and Consumption, 18(1), 145-155.

- Cobb, H., Spray, B., Daily, J., Dossey, A., & Angtuaco, M. J. (2021). Cutting balloon angioplasty on branch pulmonary artery stenosis in pediatric patients. Catheterization and Cardiovascular Interventions, 98(3), 526-532.
- Dharma, F., Shabrina, S., Noviana, A., Tahir, M., Hendrastuty, N., & Wahyono, W. (2020). Prediction of Indonesian inflation rate using regression model based on genetic algorithms. Jurnal Online Informatika, 5(1), 45-52.
- Fahlevi, R., Ernayani, R., Lestari, W., Hubur, A. A., & Wahyudi, A. (2020). A brief review on the theory of inflation. Journal of Critical Reviews, 7(8), 2069-2076.
- Fine, C., Sojo, V., & Lawford-Smith, H. (2020). Why does workplace gender diversity matter? Justice, organizational benefits, and policy. Social Issues and Policy Review, 14(1), 36-72.
- Girdzijauskas, S., Streimikiene, D., Griesiene, I., Mikalauskiene, A., & Kyriakopoulos, G. L. (2022). New approach to inflation phenomena to ensure sustainable economic growth. Sustainability, 14(1), 1-10.
- Gough, I. (2020). Defining floors and ceilings: the contribution of human needs theory. Sustainability: Science, Practice and Policy, 16(1), 208-219.
- Hernandez, I., Good, C. B., Cutler, D. M., Gellad, W. F., Parekh, N., & Shrank, W. H. (2019). The contribution of new product entry versus existing product inflation in the rising costs of drugs. Health Affairs, 38(1), 76-83.
- Irawan, A., & Alamsyah, H. (2021). The COVID-19's economic crisis and its solutions: A Literature Review. Etikonomi, 20(1), 77-92.
- Korneta, P., & Rostek, K. (2021). The impact of the SARS-CoV-19 pandemic on the global gross domestic product. International Journal of Environmental Research and Public Health, 18(10), 1-10.
- Kumar, A., Luthra, S., Mangla, S. K., & Kazançoğlu, Y. (2020). COVID-19 impact on sustainable production and operations management. Sustainable Operations and Computers, 1(1), 1-7.
- Mankiw, N. G. (2009). Makroekonomi (F. L. dan I. Nurmawan (ed.)). Surabaya: Erlangga.
- Pratami, A., Feriyanto, N., Sriyana, J., & Pratama, I. (2022). Are Shariah Banking Financing patterns pro-cyclical? An Evidence from ASEAN Countries. Cuadernos de Economía, 45(127), 82-91.
- Solorza, M. (2021). Responsible Fiscal Policy and Economic Development: A Challenge for Latin America After COVID-19. International Journal of Political Economy, 50(3), 198-211.
- Sukirno, S. (2011). Makroekonomi: Teori Pengantar (Cetakan Ke 20). Depok: PT Raja Grafindo Persada.
- Tayibnapis, A. Z., Wuryaningsih, L. E., & Gora, R. (2021). Medium, small and medium enterprises and digital platforms. South Asian Journal of Social Studies and Economics, 10(2), 10-19.
- Tetik, M., & Bilgin, B. A. R. İ. (2022). Reaction of Monetary policy to Cost-Push Inflation in Turkey: A Leaning against Wind?. Eskişehir Osmangazi Üniversitesi İktisadi ve İdari Bilimler Dergisi, 17(1), 256-271.
- Venkatesh, P., SUDHEER, K., & Paramasivan, S. (2021). A study on technical analysis using candlestick pattern of selected large cap stocks listed in National Stock Exchange (NSE), India with reference to steel sector. GSI Journals Serie B: Advancements in Business and Economics, 3(2), 62-71.

- Wahyunti, S. (2020). Peran strategis UMKM dalam menopang perekonomian Indonesia di Tengah Pandemi Covid-19. J-ESA (Jurnal Ekonomi Syariah), 3(2), 280-302.
- Widarni, E. L., & Bawono, S. (2021). Human Capital, Technology, and Economic Growth: A Case Study of Indonesia. The Journal of Asian Finance, Economics and Business, 8(5), 29-35.
- Wiraguna, S. A., Santiago, F., & Redi, A. (2023). Harmonization of Law on Transactions E-Commerce in order to support Indonesia's Economic Development. Journal of Social Research, 2(6), 1929-1936.
- Wolcott, M. D., McLaughlin, J. E., Hann, A., Miklavec, A., Beck Dallaghan, G. L., Rhoney, D. H., & Zomorodi, M. (2021). A review to characterise and map the growth mindset theory in health professions education. Medical Education, 55(4), 430-440.
- Yue, B., Sheng, G., She, S., & Xu, J. (2020). Impact of consumer environmental responsibility on green consumption behavior in China: The role of environmental concern and price sensitivity. Sustainability, 12(5), 1-10