Study Of Determinants Of Indonesian Inflation 2001-2021

Febrianza Titania Rizky[1], Yuni Prihadi Utomo[2]

Program Studi Ekonomi Pembangunan, Fakultas Ekonomi dan Bisnis, Universitas Muhammadiyah Surakarta,
Surakarta, Indonesia, Jl. Ahmad Yani, Pabelan, Kartasura, Surakarta[1,2]

| Article Info	ABSTRACT
Keywords: BIRATE Inflation World Oil Prices	Inflation is a very crucial indicator for assessing macroeconomic conditions in Indonesia. Its influence is quite significant, it can even influence government policy, especially in macro matters. This research aims to measure the direction and magnitude of the influence of Bank Indonesia Interest Rates, Economic Growth, Money Supply, Exchange Rates, Government Budget Deficit, World Oil Prices, and Government Debt on Inflation in Indonesia during the 2001-2021 period. The data used is secondary data in the form of time series data from 2001-2021, obtained from official sources such as the Central Statistics Agency, Bank Indonesia, World Bank, as well as from the State Revenue and Expenditure Budget. For quantitative analysis, the multiple linear regression analysis method was used with Ordinary Least Square (OLS) as the tool. The results of the research show that Bank Indonesia Interest Rates and World Oil Prices have a positive effect on Inflation, while Economic Growth, Money Supply, Exchange Rates, Government Budget Deficit and Government Debt have no effect on Inflation in Indonesia in 2001-2021.
	Corresponding Author: Febrianza Titania Rizky Universitas Muhammadiyah Surakarta Jl. Ahmad Yani, Pabelan, Kartasura, Surakarta b300190072@student.ums.ac.id

INTRODUCTION

Inflation is a crucial indicator for assessing the macroeconomic conditions in Indonesia. Its influence is significant, even affecting government policies, especially in macro aspects. Indonesia, as a developing country, is very concerned about changes in annual inflation. The government still uses inflation as a measure of the monetary conditions in Indonesia, which is always publicly disclosed. Maintaining stability and a low inflation rate is not easy. Efforts and appropriate steps are required without harming other parties or sectors so that Indonesia's macroeconomic policy objectives can ultimately be realized and achieved (Ananta & Widodo, 2021).

Inflation essentially refers to a sustained increase in the price level, which ultimately affects the macroeconomic conditions of a country. According to Murni (2013), inflation is the phenomenon of a continuous increase in the overall prices of goods and services. Inflation is often seen as a monetary phenomenon that occurs in all countries, including Indonesia, a developing country. Considering its impact on the economy, which can cause exchange rate instability, slow economic growth, and increased unemployment, the issue of inflation must be addressed promptly.

Inflation in a country has both positive and negative impacts on its economic activities. Indonesia has a history of inflation. In 1998, Indonesia experienced a period with the lowest inflation, where the inflation rate reached 77.63%, leaving various issues such as the closure and bankruptcy of many companies, the devaluation of the Indonesian currency against foreign currencies, and sharp price increases. There was a significant increase in needs and a decrease in public trust in government actions (Subiyanto & Mumpuni, 2012).

After Indonesia experienced an economic crisis and began the reform era, the government started taking actions to address the existing problems. The government sought to cooperate with various parties to achieve exchange rate stabilization. Nevertheless, Indonesia's economy still faces various challenges. The replacement of presidents and changes in political leadership have occurred several times, but this has helped maintain Indonesia's economic stability. Government measures to improve the economy include reducing fuel subsidies, providing assistance to the community, and reducing foreign debt (Azmi, 2021). The movement of the inflation rate in Indonesia from 2001 to 2021 is presented in Graph 1.
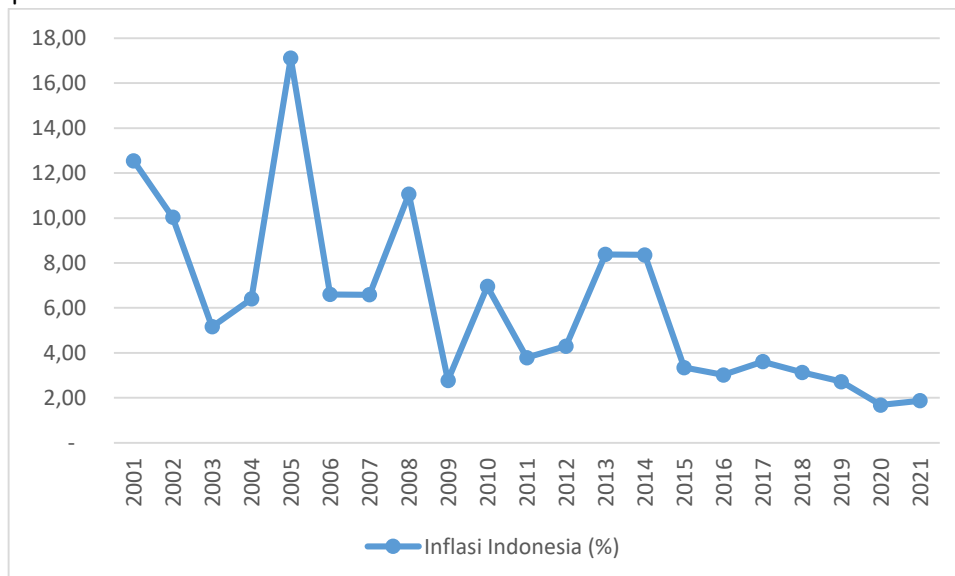
Graph 1. Movement of Inflation Rate in Indonesia from 2001 to 2021 (%)
Source: BPS, processed

Graph 1 shows the movement of Indonesia's inflation rate during the years 2001-2021, which had varying impacts, with inflation rates increasing and decreasing irregularly each year. In 2005, inflation reached its highest level at 17.11%, caused by the major contributors to inflation that year, namely housing, water, electricity, gas, and fuel, with a contribution rate of 3.89%. From 2015 to 2021, the movement of Indonesia's inflation rate tended to stabilize within the range of 1-3%. In 2020 and 2021, the Covid-19 pandemic occurred, causing a decrease in the inflation rate due to a decrease in purchasing power. In 2020, Indonesia recorded its lowest inflation rate at 1.68%, which increased to 1.87% in 2021. The Covid-19 pandemic led to a decrease in manufacturing activities, scarcity of goods, and increases in market prices.

The quantity theory of money developed by Irving Fisher states that significant changes in the amount of money in circulation can lead to rapid price changes. According to this theory, if the amount of money in circulation increases by 5%, then the price level will also increase by 5%, and vice versa (Basorudin et al., 2019). The structuralist theory explains how long-term inflation occurs in developing countries. According to this theory, inflation in developing countries can be caused by several factors, including inelasticity in export earnings and domestic food supply or production. Inelasticity in export earnings refers to differences in the growth of export value compared to the growth of other sectors. At the same time, inelasticity in domestic food supply or production means that an increase in food availability will increase labor wages and thus increase production costs, leading to commodity price increases (Sutawijaya, 2012).

Keynesian inflation theory states that inflation arises from society's desire to live a more luxurious life than its ability allows. The inflation process is considered a competition to obtain a share of production among groups of society striving to obtain a larger share than what can be provided by society. In this process, society's demand for a good is always greater than the quantity of goods available, leading to shortages or inflation (Sutawijaya, 2012).

According to the Islamic economist Al-Maqrizi, inflation in Egypt began during the reign of the 17th Egyptian king due to a prolonged drought leading to a shortage of water in the Nile River, which is the source of life in Egypt, and the lack of animals that could not give birth due to infertility. As a result of this disaster, there was a shortage of supplies leading to an overall price increase. Another cause of inflation in Egypt during the reign of the 19th Egyptian king was the extent of injustice, chaos, and slander. Al-Maqrizi mentions two main causes of inflation: natural inflation caused by natural disasters or crop failures, and inflation caused by human errors. Inflation due to human error can be divided into three parts: corruption and ineffective administration, excessive taxation, and an increase in the amount of money in circulation (Siregar & Masri, 2019).

Research by Mahendra (2016), Fauziyah et al. (2022), Arjunita (2016), Kalalo et al. (2016), Yanti (2022), Maharani (2022), Suryani et al. (2018), Aghisna (2017), Ananta & Widodo (2021), and Zunaitin et al. (2017) found that the Bank Indonesia interest rate (BIRATE) affects inflation. Prayogi (2022) found that economic growth affects inflation. The amount of money in circulation has been proven to affect inflation in studies by Fauziyah et al. (2022), Nasrun et al. (2018), Suryani et al. (2018), Santosa (2017), Prayogi (2022), Ananta & Widodo (2021), and Sutawijaya (2012). Aimola & Odhiambo (2021) found that the amount of money in circulation affects inflation in the short term but not in the long term. Research by Fauziyah et al. (2022), Maharani (2022), Aghisna (2017), and Jacobus et al. (2015) found that the exchange rate affects inflation. Fauziyah et al. (2022), Aghisna (2017), and Arifin (2018) found that world oil prices affect inflation. Aimola & Odhiambo (2021) found that government debt affects inflation in both the long and short term.

Based on the background above, this research will examine the effects of the Bank Indonesia interest rate (BIRATE), Economic Growth (GROWTH), Amount of Money in Circulation (JUB), Rupiah Exchange Rate (KURS), Government Budget Deficit (BD), World Oil Price (WTI), and Government Debt (HP) on the inflation rate in Indonesia during the period 2001-2021.

METHODS

The tool used for analysis in this study is regression analysis using the Ordinary Least Squares (OLS) method and the econometric model specified as follows:

$$INF_t = \beta_0 + \beta_1 BIRATE_t + \beta_2 GROWTH_t + \beta_3 JUB_t + \beta_4 KURS_t + \beta_5 BD_t + \beta_6 WTI_t + \beta_7 HP_t + \varepsilon_t$$

Where:

INF = Inflation (%)

BIRATE = Bank Indonesia Interest Rate (%)

GROWTH = Economic Growth (%)

JUB = Amount of Money in Circulation (Trillion Rupiah)

KURS = Exchange Rate (Rupiah)

BD = Government Budget Deficit (Trillion Rupiah)

WTI = World Oil Price (USD/Barrel)

HP = Government Debt (Trillion Rupiah)

ε = Error term (error factor)

β_0 = Constant

$\beta_1 \dots \beta_7$ = Regression coefficients of independent variables

t = year t

The econometric model presented is an adaptation of models developed by Maharani (2022), Fauziyah et al. (2022), Prayogi (2022), Rosyetti & Eriyati (2011), and Aimola & Odhiambo (2021). Bank Indonesia Interest Rate (BIRATE), Economic Growth (GROWTH), Exchange Rate (KURS), World Oil Price (WTI), and Government Debt (HP) are hypothesized to have a positive influence on Inflation (INF), while Amount of Money in Circulation (JUB) and Government Budget Deficit (BD) are hypothesized not to affect Inflation (INF).

The data used in this study are a series of time series data covering the period from 2001 to 2021, obtained from sources such as Bank Indonesia, the Central Bureau of Statistics, the State Budget, and the World Bank. The data used include Inflation (INF), Bank Indonesia Interest Rate (BIRATE), Economic Growth (GROWTH), Amount of Money in Circulation (JUB), Exchange Rate (KURS), Government Budget Deficit (BD), World Oil Price (WTI), and Government Debt (HP).

RESULTS AND DISCUSSION

The results of the econometric model estimation and supplementary tests are explained in Table 1.

Table 1 Results of Econometric Model Estimation

$$\widehat{INF}_t = -31,5071 + 0,7273\ BIRATE_t + 0,1153\ GROWTH_t - 5,7760\ logJUB_t$$
$$\qquad\qquad (0,0161)^{**} \qquad\quad (0,7817) \qquad\qquad (0,2422)$$
$$+\ 8,2240\ log\ KURS_t - 0,6101\ logBD_t + 4,8810\ log\ WTI_t + 3,5471\ log\ HP_t$$
$$\quad (0,3136) \qquad\qquad (0,4948) \qquad\quad (0,0562)^{***} \qquad\quad (0,5051)$$

R^2 = 0,8363; DW-Stat. = 2,4238; F-Stat. = 9,4878; Prob. F-Stat. = 0,0003

Uji Diagnosis

(1) Multikolinieritas (VIF)

$BIRATE$ = 4,0222; $GROWTH$ = 2,5606; $log\ JUB$ = 55,7355; $log\ KURS$ = 11,5097; $log\ BD$ = 7,5380; $log\ WTI$ = 4,6004; $log\ HP$ = 43,2692

(2) Normalitas Residual
   JB(3) = 4,7282; Prob. JB(3) = 0,0940
(3) Otokorelasi
   $\chi^2(3)$ = 4,4913; Prob. $\chi^2(3)$ = 0,2131
(4) Heteroskedastisitas
   $\chi^2(14)$ = 17,3122; Prob. $\chi^2(14)$ = 0,2399
(5) Linieritas
   F(2,11) = 1,2162; Prob. F(2,11) = 0,3333

Source: BPS, processed.
Note: Significant at $\alpha = 0.01$; "Significant at $\alpha = 0.05$; "Significant at $\alpha = 0.10$. Numbers in parentheses are the empirical probability (p-value) of t-statistics.

The results of diagnostic tests show that the estimated model appears to have multicollinearity issues in three main variables: Money Supply, Exchange Rate, and Government Debt. These three variables have VIF values > 10 (55.7355, 11.5097, and 43.2692). The empirical probability values of the Normality of Residuals test, Autocorrelation test, Heteroskedasticity test, and Linearity test, which are 0.0940 (> 0.05), 0.2131 (> 0.10), 0.2399 (> 0.10), and 0.333 (> 0.10), respectively, indicate that the estimated model has a normal residual distribution, is free from autocorrelation and heteroskedasticity issues, and has the correct model specification (linearity).

The goodness of fit statistics indicate that the estimated model is existent, as shown by the very low empirical probability of the F-statistic, which is 0.0003 (< 0.01). Moreover, the coefficient of determination, R^2, or the predictive power of the model is quite high, reaching 0.8363, indicating a good performance of the model in predicting the data. In other words, the model shows that 83.63% of the independent variables, namely Bank Indonesia Interest Rate (BIRATE), Economic Growth (GROWTH), Money Supply (JUB), Exchange Rate (KURS), Government Budget Deficit (BD), World Oil Price (WTI), and Government Debt (HP), are explained by the model, while the remaining 16.37% is influenced by other variables not included in the model.

In separate analyses, only two variables, namely Bank Indonesia Interest Rate and World Oil Price, show significant effects on Inflation. Bank Indonesia Interest Rate has an empirical probability of t-statistic of 0.0161 (< 0.05), and World Oil Price has an empirical probability of t-statistic of 0.0562 (< 0.10). On the other hand, the variables Economic Growth, Money Supply, Exchange Rate, Government Budget Deficit, and Government Debt do not show significant effects on Inflation, as they have higher empirical probabilities of 0.7817 (> 0.10), 0.2422 (> 0.10), 0.3136 (> 0.10), 0.4948 (> 0.10), and 0.5051 (> 0.10), respectively.

The Bank Indonesia Interest Rate variable has a regression coefficient showing a linear relationship with Inflation, with a coefficient value of 0.7273. This means that every 1% increase in Bank Indonesia Interest Rate will result in a 0.7273/100 or 0.0073% increase in Inflation, and conversely, every 1% decrease in Bank Indonesia Interest Rate will result in a 0.0073% decrease in Inflation. The World Oil Price variable has a regression coefficient of 4.8810, indicating a linear-logarithmic (lin-log) relationship with Inflation. This means that

every 1% increase in World Oil Price will result in a 4.8810/100 = US$ 0.0488 million or 48,810 US$/Barrel increase in Inflation, and conversely, every 1% decrease in World Oil Price will result in a decrease in Inflation of 48,810 US$/Barrel.

Based on the results of the validity test analysis, it can be concluded that the Bank Indonesia Interest Rate (BIRATE) and World Oil Price (WTI) are the two independent variables that have a significant influence on the Inflation rate in Indonesia from 2001 to 2021. On the other hand, Economic Growth (GROWTH), Money Supply (JUB), Exchange Rate (KURS), Government Budget Deficit (BD), and Government Debt (HP) do not show a significant influence on the Inflation rate in Indonesia during the analyzed period.

The Bank Indonesia Interest Rate has a positive influence on Inflation, meaning that an increase in the Bank Indonesia Interest Rate will lead to an increase in Inflation in Indonesia. The high interest rate affects the consumer behavior to decrease consumption expenses and choose to save money in banks. From the increase in deposit interest rates, it becomes easier to deposit circulating money. Hence, the decreased spending weakens economic growth but lowers the inflation rate. This research aligns with the findings of Kalalo et al. (2016) and Zunaitin et al. (2017).

The world oil price has a positive influence on inflation. Oil is an essential energy commodity for investors as it is a primary energy source needed by countries worldwide. Fluctuations in oil prices significantly impact the economic conditions of each country. Essentially, the price of petroleum products is influenced by supply and demand factors for oil. The World Oil Price is often used as a reference in determining oil prices in several countries, including Indonesia. Significant changes in oil prices can affect the economic conditions of Indonesia. When global oil prices rise, subsidies also increase. Generally, the main objective of government subsidies is to maintain market price stability and strengthen consumer purchasing power. This is because subsidies can support the lowering of prices of products or services below their market prices. Meanwhile, government subsidies for companies can increase productivity. When this happens, it can reduce inflation. This research aligns with the findings of Fauziyah et al. (2022) and Aghisna (2017).

Economic growth does not influence inflation. In theory, there is a long-term relationship between inflation and economic growth, where an increase in inflation is usually followed by a decrease in economic growth. High inflation is detrimental to the economy and can cause instability in social and political aspects. Capital investment becomes less attractive, economic growth stagnates, income distribution becomes more uneven, and consumer purchasing power decreases. Indonesia's economic growth peaked in 2007, with a national economic growth of 6.35%. The largest growth was recorded in the agricultural sector at 16.80% due to harvest seasons, while other contributions came from trade, hotels, and restaurants, which also contributed to economic growth. Meanwhile, normal conditions occurred during President Joko Widodo's era from 2015 to 2021, ranging from 4.8 to 5.3%. A sharp decline of -2.07% occurred in 2020 due to the Covid-19 pandemic. However, this research's findings are not in line with the findings of Prayogi (2022), which indicate that economic growth affects inflation because it reflects the level of production of goods or services produced by a country. In other words, when the level of production of goods or services increases, the productivity of society in production activities will also increase.

The money supply does not affect inflation. As the institution responsible for monetary policy, Bank Indonesia has the authority to control the money supply in Indonesia. BI has a discount policy, which is to raise the interest rate of the reserve pension fund 7 days BI (BI7DRR) or also called the BI pension rate/BI pension rate. BI7DRR is the reference interest rate set by Bank Indonesia as the central monetary authority, which must be complied with by all commercial banks operating in Indonesia. When Bank Indonesia raises the BI interest rate, bank interest rates will also rise, and the public will tend to shift their investments to banks. The money supply only increases significantly during economic crises in 1998 and 2008. Outside of that, the money supply remains stable and does not cause inflation. This research aligns with the findings of Maharani (2022) and Mahendra (2016).

The exchange rate does not affect inflation in Indonesia because of government efforts to maintain the stability of the exchange rate of the rupiah against the dollar. The highest exchange rate of the rupiah in Indonesia throughout the study period occurred in 2021 at Rp14,269. Sectors affected when the exchange rate of the rupiah is high are the export and import sectors, manufacturing industry, tourism, finance, and investment, household consumption, banking and finance, commodities, and agriculture. Bank Indonesia strives to maintain the stability of the exchange rate by implementing a dual intervention policy. One form of dual intervention is by investing foreign exchange reserves in market operations aimed at stabilizing the rupiah. The next step is to purchase government bonds in the secondary market, both in the foreign exchange market and through the issuance of Government Bonds (SBN). To increase investment and exports, the government introduced the One Single Submission (OSS), which is a fully integrated electronic licensing service. Another alternative is to encourage growth in the tourism sector, where an increase in the number of international tourists visiting Indonesia will increase foreign exchange reserves. This research aligns with the findings of Yanti (2022) and Arjunita (2016).

Government budget deficits do not affect inflation in Indonesia. One of the goals of the Indonesian government in running a budget deficit is to promote rapid economic growth through increased development and spending in the midst of a crisis. The budget deficit is covered by two methods of budget financing, namely debt-free financing and debt financing. This includes financial revenues, such as from Last Year's Budget Calculation Surplus (SiLPA), the use of reserves, and loans. Meanwhile, inflation can occur due to changes in the prices of controlled and unstable food groups. This research aligns with the findings of Rosyetti & Eriyati (2011).

Government debt does not affect inflation. The Ministry of Finance recorded the total government debt until the end of 2021 at Rp6,908.870 trillion. With a government debt-to-GDP ratio of 41%, in 2020 and 2021 there was a decrease in state revenue and an increase in state expenditure due to the Covid-19 pandemic. This expenditure is allocated for health services, Social Safety Net (SSN), and the National Economic Recovery Program (PEN). This allocation includes the procurement of health facilities and the Covid-19 vaccination program. Social Safety Net includes social assistance aimed at protecting, preserving, and increasing the economic opportunities of business entities in business management. According to LKPP, the government's financial position in 2020 was very good, with state assets reaching Rp4,473.2. This means that the country's wealth is greater than its debt. The government

also uses the State Budget (APBN) to acquire assets that provide functions for the community and support economic growth. Thus, inflation will decrease. However, this research's findings are not in line with the findings of Aimola & Odhiambo (2021), which state that government debt affects inflation because government debt increases household wealth, thereby increasing demand for goods and services, leading to price pressure.

CONCLUSION

The results of this study indicate that the estimated model is existent, with a coefficient of determination R^2 reaching 0.8363. The estimated model has excellent predictive power in forecasting inflation. The independent variables used are able to accurately explain changes in inflation. The Bank Indonesia Interest Rate and World Oil Price variables have a positive impact on Inflation, while Economic Growth, Money Supply, Exchange Rate, Government Budget Deficit, and Government Debt do not affect Inflation in Indonesia from 2001 to 2021. The interest rate set by Bank Indonesia has a positive impact on the inflation rate in Indonesia. In determining the ideal interest rate, the government through the central bank needs to weigh between inflation and economic growth. Increasing interest rates can reduce consumers' tendency to spend and prefer to save money in banks, thus reducing the amount of money in circulation and controlling price increases. Strong monetary policy with an increase in Bank Indonesia's interest rates can be used as one tool to control inflation. World oil prices play an important role in shaping the dynamics of inflation in Indonesia; significant changes in oil prices will impact the overall economy of Indonesia. Appropriate fiscal and monetary policies are needed to achieve economic stability in Indonesia. The government through the central bank also needs to consider the factor of world oil prices in determining optimal subsidy levels, interest rates, and exchange rates. The increase in world oil prices also affects the country's financial situation, where the government's burden of subsidies for energy such as fuel, LPG, and electricity increases significantly. Meanwhile, for businesses, government subsidies can boost productivity. When this happens, it can lower the inflation rate.

REFERENCE

Aghisna, H. (2017). Analisis Faktor-Faktor Yang Mempengaruhi Inflasi di Indonesia Tahun 2000-2015.

Aimola, A. U., & Odhiambo, N. M. (2021). Public debt and inflation: empirical evidence from Ghana. Development Studies Research, 8(1), 1–13. https://doi.org/10.1080/21665095.2021.1872392

Ananta, A. D., & Widodo, P. (2021). Analisis Determinasi Inflasi di Indonesia Tahun 2015-2019. Prosiding Seminar Nasional & Call for Paper STIE AAS, September, 189–200.

Arifin, Y. (2018). Pengaruh Harga Minyak Dunia, Nilai Tukar dan Inflasi terhadap Pertumbuhan Ekonomi Indonesia. Economics Development Analysis Journal, 5(4), 474–483. https://doi.org /10.15294/edaj.v5i4.22184

Arjunita, C. (2016). Faktor-Faktor yang Mempengaruhi Inflasi di Indonesia. Kajian Ekonomi Dan Pembangunan, 5(2), 137–148.

Azmi, F. R. (2021). Pengaruh Jumlah Uang Beredar, Suku Bunga, Nilai Tukar, dan Harga

Minyak Dunia Terhadap Inflasi di Indonesia Periode 2016-2020. Tugas Akhir.

Basorudin, M., Maharani, A. F., Ramadhan, F., & Ronaldo, S. (2019). Analisis Faktor Determinan Yang Mempengaruhi Tingkat Inflasi Di Indonesia Dengan Error Correction Mechanism. Jurnal Penenelitian Ekonomi Dan Bisnis, 4(2), 120–131.

Fauziyah, N. N., Mahendra, D. K., Ramadhani, N. W., & Nugroho, J. P. (2022). Analisis Pengaruh JUB , Suku Bunga SBI , Nilai Tukar Rupiah dan Harga Minyak Dunia terhadap Inflasi di Indonesia.

Jacobus, E. H., Rotinsulu, T. O., & Mandeij, D. (2015). Analisis Pengaruh Suku Bunga Sertifikat Bank Indonesia (SBI), Kurs Dan Produk Domestik Bruto (PDB) Terhadap Inflasi Di Indonesia. Jurnal Berkala Ilmiah Efisiensi, 15(2), 1–16.

Kalalo, H. Y. T., Rotinsulu, T. O., & Maramis, M. T. B. (2016). Analisis Faktor-Faktor Yang Mempengaruhi Inflasi di Indonesia Periode 200-2014. 16(01), 706–717.

Maharani, P. (2022). Determinan Inflasi di Indonesia Periode 1995-2020.

Mahendra, A. (2016). Analisis Pengaruh Jumlah Uang Beredar, Suku Bunga SBI dan Nilai Tukar Terhadap Inflasi di Indonesia. 2(1), 1–12.

Murni, A. (2013). Ekonomi Mikro. Refika Aditama.

Nasrun, M. A., Agustiar, M., & Wahyudi. (2018). Pengaruh Jumlah Uang Beredar , Ekspor Dan Impor Terhadap Inflasi (Studi Empiris Pada Perekonomian Indonesia). 4–9.

Prayogi, A. (2022). Analisis Faktor-Faktor Yang Mempengaruhi Inflasi Di Indonesia Menggunakan Metode OLS Analysis Of Factors Affecting Inflation In Indonesia Using OLS Method Analisis Faktor-Faktor Yang Mempengaruhi Inflasi Di Indonesia. 1(2), 1–11.

Rosyetti, & Eriyati. (2011). Pengaruh Defisit Anggaran Terhadap Inflasi Di Indonesia Tahun 1981-2010. Jurnal Ekonomi, 19(4).

Santosa, A. B. (2017). Analisis Inflasi di Indonesia. Prosiding Seminar Nasional Multi Disiplin Ilmu & Call Papers UNISBANK Ke-3 (SENDI_U 3) 2017, 445–452.

Siregar, S., & Masri, T. (2019). Teori Inflasi Menurut Al-Maqrizi. Mudharabah: Jurnal Perbankan Syariah, 2(1), 60–67.

Subiyanto, A., & Mumpuni, R. S. (2012). Analisis Faktor-Faktor Yang Mempengaruhi Inflasi Di Indonesia Tahun 1990-2009. Jurnal Aplikasi Bisnis, 13(9), 1515.

Suryani, C., Fevriera, S., & Adhitya, D. (2018). Determinan Tingkat Inflasi Indonesia Tahun 1989-2018. 1(1), 16–36.

Sutawijaya, A. (2012). Pengaruh Faktor-Faktor Ekonomi Terhadap Inflasi Di Indonesia. Jurnal Organisasi Dan Manajemen, 8(2), 85–101. https://doi.org/10.33830/jom.v8i2.237.2012

Yanti, Y. W. T. F. (2022). Analisis Pengaruh Jub, Suku Bunga, Dan Nilai Tukar Terhadap Inflasi Di Indonesia Tahun 2005-2021. Jurnal Ekonomi Pembangunan, 8(2), 265–277. https://doi.org/10.35906 /jep.v8i2.1256

Zunaitin, E., Niken W, R., & Wahyu P, F. (2017). Pengaruh E-money terhadap Inflasi di Indonesia. Journal Ekuilibrium, 2(1), 18–23. https://jurnal.unej.ac.id/index.php/JEK/article/download/13920 /7264