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Do Coffee Exports Have an Impact on Economic Growth in Indonesia?

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ABSTRACT

Research Originality: The novelty lies in exploring an under-researched topic, with limited studies on the impact of coffee exports from 1993 to 2024, considering key events such as the Asian financial crisis and the COVID-19 pandemic.

Research Objectives: This study examines the short-term and long-term effects of exchange rates and coffee exports on economic growth.

Research Methods: This study utilizes data from 1993 to 2024 on exchange rates, coffee exports, recessions, and economic growth in Indonesia. The analysis is conducted using the ARDL model.

Empirical Results: Exchange rate depreciation has a negative impact on GDP in the short term, while past depreciation has a positive effect on economic growth. The value of coffee exports has a marginal positive effect on GDP, while the volume of coffee exports shows inconsistent impacts. Recession does not significantly affect GDP, likely due to policy responses. Long-term estimates show a stable relationship among the variables, with adjustments occurring at a rate of 35.43% per period.

Implications: The government should thoroughly evaluate existing policies with a focus on promoting economic growth, while enhancing the quality of Indonesian coffee exports to remain competitive globally.

Keywords:
coffee export; economic growth; exchange rate volatility; recession

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INTRODUCTION

Economic growth is a crucial indicator in measuring the level of social welfare and the success of a nation's development. According to Kuznets (1973), economic growth is defined as a long-term increase in a country's capacity to supply diverse economic goods to its population, achieved through technological progress, institutional adjustments, and improved production efficiency. In the context of developing countries like Indonesia, economic growth is influenced by the performance of the external sector, particularly international trade. The Export-Led Growth (ELG) theory posits that exports serve as the primary engine of economic growth. This theory is rooted in Adam Smith's classical notion of absolute advantage and David Ricardo's concept of comparative advantage, whereby nations benefit substantially when they specialize in the production of goods that can be efficiently exported (Salvatore, 2014). Through exports, countries earn foreign exchange that can be used to import capital goods and advanced technologies, stimulate investment, and expand national production capacity. In addition, Sultanuzzaman et al. (2019) argue that exports play a vital role in enhancing productivity across many developing economies.

Indonesia is among the largest producers and exporters of coffee worldwide, ranking within the top three in robusta coffee production and eleventh in arabica coffee production as of 2023. Coffee has a strategic role in the national economy, serving as a significant source of non-oil and gas foreign exchange. It is also a commodity that has a substantial influence on the performance of the agricultural sector. Coffee contributed to Indonesia's recovery of its Gross Domestic Product (GDP) in the post-pandemic period of 2021, driven by increased production and higher export volumes. In 2021, Statistics Indonesia (BPS) recorded total coffee production of 786.2 thousand tons, with export volumes reaching 384.5 thousand tons. This performance made coffee a significant contributor to GDP growth that year, as increased exports boosted foreign exchange earnings, which in turn strengthened national output. Erokhin et al. (2023) further note that coffee carries a relatively high economic value in supporting Kenya's economy when compared to other agricultural commodities.

Indonesia's coffee exports increased to 433.7 thousand tons in 2022, representing a 12.79 percent rise from 2021. Such growth has direct implications for GDP expansion as well as movements in the exchange rate. Table 1 presents annual data on exchange rates, coffee exports, and Indonesia's economic growth.

The data reveal notable fluctuations in both exchange rates and coffee exports, while economic growth declined during the pandemic but rebounded in the subsequent two years. Interestingly, in 2018 and 2022, the rupiah depreciated—moving from Rp13,380 per USD in 2017 to Rp14,236 in 2018 and to Rp14,849 in 2022—yet economic growth strengthened, rising from 5.07 percent to 5.17 percent and from 3.70 percent to 5.31 percent, respectively.

Pangestuti et al. (2022) argue that such conditions contradict the International Fisher Effect theory, which does not hold in the case of the rupiah's exchange rate against

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the US dollar. In principle, fluctuations in Indonesia's economic performance should be reflected by the movements of the rupiah. The depreciation of the rupiah indicates a weaker economic outlook, as a declining exchange rate driven by the appreciation of the US dollar reduces the relative value of domestic assets. Consequently, foreign investors tend to withdraw or reduce investment allocations, leading to a decline in capital inflows. This reduction in investment hurts societal welfare and hinders national growth. Sugiharti et al. (2020) empirically confirmed that when the rupiah depreciates, economic growth tends to decline, whereas an appreciation of the rupiah corresponds with higher growth. A stable and strong currency is therefore crucial to stimulating investment and sustaining robust economic activity (Tang, 2015).

Table 1. Exchange Rate, Coffee Exports, and Economic Growth in Indonesia

Year	US Dollar Exchange Rate (Rp)	Coffee Exports (million USD)	Economic Growth (%)
2017	13380,83	1187,15	5,07
2018	14236,94	817,78	5,17
2019	14147,67	883,12	5,02
2020	14582,2	821,93	-2,07
2021	14308,14	858,55	3,70
2022	14849,85	1149,16	5,31
2023	15236,88	929,13	5,0
2024	15855,45	1638,11	5,0

Source: Statistics Indonesia (2023), World Bank (2023), Pacific Exchange Rate (2023)

The relationship between coffee exports and economic growth also exhibits inconsistencies. In 2018, coffee export values dropped from USD 1,175.3 million to USD 806.8 million, yet Indonesia's economic growth slightly increased to 5.17 percent. Similarly, in 2019, coffee exports rose to USD 872.3 million, but economic growth weakened to 5.02 percent. These results diverge from those of Ee (2016) and Grancay et al. (2015), who found that exports have a positive and significant impact on economic growth. Such discrepancies highlight the need to examine both the short-term and long-term impacts of exchange rates and coffee exports on Indonesia's economic growth.

Beyond exports, exchange rate stability also exerts a significant influence on growth. Exchange rates affect the competitiveness of domestic products in global markets. The Mundell-Fleming model posits that currency depreciation promotes exports by lowering the relative prices of domestic goods, thereby stimulating economic growth. Conversely, appreciation suppresses exports as domestic goods become more expensive internationally (Krugman et al., 2015). Clark (1973) and Bahmani-Oskooee & Aftab (2017) further emphasize that exchange rate volatility creates uncertainty in trade, reducing export and import volumes and ultimately slowing growth. Urgessa (2024) emphasizes that exchange rates can serve as a barometer of economic health, influencing multiple economic dimensions, including agricultural exports. In contrast, Boubaker & Mouna (2024)

highlight that exchange rate fluctuations have a significant impact on prices, investment, and overall stability in the global trading system.

Based on the foregoing, this study contributes new insights by focusing specifically on the impact of exchange rates and coffee exports on Indonesia's aggregate economic growth. Unlike prior research that analyzed exports broadly or examined other commodities, this study focuses on coffee as one of Indonesia's flagship agricultural exports, utilizing a long observation period spanning 1993–2022. This period encompasses major economic events, including the Asian financial crisis, commodity booms, and the COVID-19 pandemic. The study aims to provide a comprehensive understanding of the role of exchange rate fluctuations and coffee export performance in driving national economic growth, while offering policy recommendations for enhancing this relationship. Specifically, it examines the short- and long-term effects of exchange rates on economic growth, the short- and long-term impacts of coffee exports on economic growth, and the short- and long-term influence of recessions on Indonesia's economic trajectory.

METHODS

This research utilizes time series data, specifically data on exchange rates, coffee exports, recessions, and economic growth in Indonesia from 1993 to 2024. The period from 1993 to 2024 covers significant changes in Indonesia's economic landscape, including the Asian financial crisis (1997), economic reforms, fluctuations in global commodity prices (including coffee), and the COVID-19 pandemic. These events offer a rich context for understanding how external shocks, currency fluctuations, and shifts in global demand for exports impact the country's economic growth. In this research, the recession data are represented as a dummy variable, written in binary form with values 0 and 1. The data sources used in this research (Central Statistics Agency, World Bank, Ministry of Agriculture of the Republic of Indonesia, and the Pacific Exchange Rate) provide reliable and consistent data from 1993 onwards. This period ensures that the analysis captures the full range of economic cycles and global market shifts, which are crucial for understanding long-term and short-term dynamics.

The ARDL model was selected for this research due to its suitability for analyzing both short-term and long-term relationships among variables in the context of time series data. The ARDL model has several advantages that make it particularly appropriate for this study. The ARDL model allows for the inclusion of lagged values of both the dependent variable (GDP) and independent variables (exchange rate, coffee exports, recession). This helps capture the effects of past values of these variables on their current values, making the model dynamic. The ARDL model can handle variables that are integrated of different orders, some may be stationary at levels (I(0)), while others may be stationary after first differencing (I(1)). This is important for this study, as economic data, such as GDP, exports, and exchange rates, can exhibit both short-term fluctuations and long-term trends. In addition, ARDL is ideal for investigating cointegration, specifically whether a long-term

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equilibrium relationship exists between variables such as GDP, exchange rates, and coffee exports. The model is used to assess both the short-term adjustments and the long-term equilibrium relationships between the variables.

In this research, the method used to carry out the unit root test is the Augmented Dicky Fuller (ADF) test and the Phillips-Perron (PP) test to determine the degree of stationarity. The decision-making criteria for the stationarity test are if the probability value (P-value) is smaller (<) than the significance level (5% for example), then the data is stationary. Then, if the probability value (P-value) is greater than the significance level (for example, 5%), the data is not stationary (Syamputri et al., 2021).

The aim of determining the optimal lag is to see the behavior and relationship of each variable..The optimal lag test also aims to eliminate autocorrelation problems in VAR systems implemented by several standards, such as Akaike's Information Criterion (AIC), Schwarz Information Criterion (SIC), Hannan-Quinn Standard (HQ), and final prediction error (FPE) (Syamputri et al., 2021). The decision-making criteria in the optimal lag test are based on the lag criteria that have the most asterisks (*) (Enders, 2004).

The method used for the cointegration test in this research is the Johansen Cointegration Test method. This method is based on the relationship between the rank of a matrix and its characteristic roots, which produces trace statistical values (Syamputri et al., 2021). The criteria for determining the outcome of the cointegration test are that if the trace statistic exceeds (>) the critical value, the data in the model equation exhibits a long-term relationship or is cointegrated. If the trace statistic value is less than (<) the critical value, it indicates that the data in the equation model lacks a long-term relationship or is not cointegrated.

The ARDL (Autoregressive Distributed Lag) model represents a dynamic framework within econometrics. By employing the standard OLS model, we will focus solely on the long term. Nonetheless, by employing the ARDL model, we can observe the impact of both dependent and independent variables across time, including the effect of the past value of the dependent variable on its current value. The ARDL model is expressed in the following manner:

$$GDP_t = a_0 + \sum_{i=1}^{p} a_1 GDP_{t-1} + \sum_{i=1}^{q} a_2 VEX_{xt-1} + \sum_{i=1}^{r} a_3 NEX_{t-1} + \sum_{i=1}^{s} a_4 KURS_{t-1} + \sum_{i=1}^{t} a_5 dDUMMYRESESI_{t-1} \quad 1)$$

Note: *GDP* = Economic Growth, *VEX* = Export Volume (000 tons), *NEX*= Export Value (million USD), *KURS* = Exchange Rate (Rupiah), *DUMMYRESESI* = Recession, α = Long-term dynamic coefficients, *et* = Standard Error

The method using the ARDL model requires a lag as in the equation above. The appropriate lag selection for the research model was determined using log likelihood (logL), Akaike's Information Criterion (AIC), Schwarz Information Criterion (SIC), Hannan-Quinn Standard (HQ), and final prediction error (FPE).

RESULTS AND DISCUSSION

This study focuses on analyzing the long-term and short-term relationships between exchange rates, coffee exports, and recession on Indonesia's economic growth. Fluctuations in coffee export values that are not in line with economic growth trends suggest that the positive relationship between exports and economic growth is not consistently observed across all periods, as found in previous studies (Gizaw et al., 2022; Kuloglu & Akar, 2024; Nugroho & Lakner, 2022). Some research findings also suggest that exports do not influence economic growth (Albiman Md & Suleiman, 2016; Quaicoe et al., 2017). Additionally, the impact of recessions—whether caused by the global financial crisis or the COVID-19 pandemic—serves as an external factor that can influence national economic performance in both the short and long term. Therefore, this discussion will comprehensively examine the influence of these variables, using an empirical approach to identify patterns of relationships that may differ from previous research findings.

To detect whether the data for each variable is stationary or not, the ADF test is used. The test criteria are if the probability value is < significance level (α=5%), then the data is said to be stationary. Based on the test in Table 2, it can be seen from the ADF test that only Export Volume (VEX), Kurs, and Recession dummy are stationary at their levels. In contrast, Export Value (NEX) and GDP variables are stationary at the first difference. Thus, the analysis can be carried out using the Autoregressive Distributed Lag (ARDL) model.

Table 2. ADF and Philips-Perron Stationarity Test

ADF Stationarity Test		
Variable	**Level**	**First Difference**
GDP	0.8550	0.0001
NEX	0.6185	0.0000
VEX	0.0158	0.0000
KURS	0.0389	0.0038
DUMMYRES	0.0032	0.0000

Source: Processed from the results of Eviews 13 (2024)

Table 3. Optimal Lag Test Results

Lag	Log L	LR	FPE	AIC	SC	HQ
0	-32.60201	NA	1.01e-05	2.685858	2.923752	2.758585
1	95.89464	201.9233*	6.43e-09	-4.706760	-3.279398*	-4.270402
2	123.1702	33.12032	6.60e-09	-4.869300	-2.252470	-4.069309
3	145.5994	19.22503	1.39e-08	-4.685672	-0.879374	-3.522049
4	206.8152	30.60792	4.44e-09*	-7.272518*	-2.276751	-5.745262*

Source: Processed from the results of Eviews 13 (2024)

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From Table 3, it can be seen that, based on the LogL, LR, FPE, AIC, SC, and HQ values, lag 4 produces the most asterisks. Thus, lag 4 is the most optimal. The aim of the optimal lag in this research is so that all research variables used in the equation influence each other for the subsequent two periods. Therefore, the reaction between the two variables will occur over the next four years. The results obtained are that export volume, export value, exchange rate, and recession can influence economic growth in the fourth lag. This means that when the volume of exports increases, economic growth will also increase over the next 4 years. Additionally, as the variables of export value, exchange rate, and recession rise, economic growth is expected to increase in the next 4 years.

Bound testing is employed to determine whether endogenous and exogenous variables are cointegrated in the long run. If the value of the F-statistic exceeds I0 and I1, it can be concluded that the variables exhibit long-term cointegration. Similarly, if the F-statistic value is less than the I0 and I1 values, then the variables do not exhibit long-term cointegration. The findings presented in Table 4 indicate that the F-statistic value is 26.198, exceeding the I0 Bound and I1 Bound values at the 10%, 5%, and 1% significance levels, thus allowing us to conclude that the variables in the tested model exhibit cointegration. Therefore, the research variables exhibit long-run cointegration.

When evaluating normality using the Jarque-Bera test, if the Jarque-Bera probability is greater than 0.05, the model is deemed to be normally distributed. Conversely, if the Jarque-Bera probability value is less than 0.05 or the 5% alpha level, the model deviates from a normal distribution. According to the results of the normality test presented in Figure 1, the Jarque-Bera statistic is recorded at 0.078932, with an associated probability of 0.961592, which is greater than 0.05. As a result, the data conforms to a normal distribution.

Table 4. Cointegration Test Results

Test Statistic	Value	K
F-statistic	26.198	3
Significance	I0 Bound	I1 Bound
10%	2.68	3.59
5%	3.27	4.30
1%	4.61	5.97

Source: Processed from the results of Eviews 13 (2024)

The heteroscedasticity test is utilized to assess the variance inequality of the residuals in the data observations. The Breusch-Pagan-Godfrey test was used for the statistical analysis. H0 is accepted when heteroscedasticity is absent. If the p-value is less than α, H0 is rejected, indicating the presence of heteroscedasticity. Table 5 displays a Chi-Square

probability value of 0.4351, which is greater than α = 0.05. This indicates that H0 is accepted, which means there is no heteroscedasticity present in the model.

Figure 1. Normality Test Results

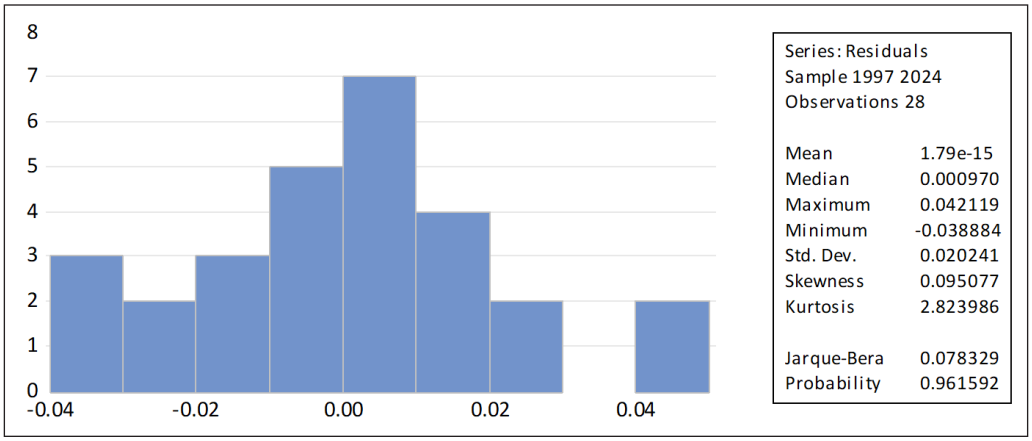

Table 5. Heteroscedasticity Test

F-Statistic	0.949242
Obs*R-squared	17.28727
Scales explained SS	2.010953
Prob. F (17,10)	0.5557
Prob. Chi Square (17)	0.4351

Source: Processed from the results of Eviews 13 (2025)

In the autocorrelation test for the variables to be analyzed, the Breusch-Godfrey test or LM test is used. H0 is accepted if there is no autocorrelation. If the p-value < α, then H0 is rejected, which means there is autocorrelation. According to the findings of the autocorrelation test presented in the table below, the Chi-Square probability value is 0.3688, which surpasses α = 0.05. Thus, it can be inferred that the model does not exhibit any autocorrelation issues.

Table 6. Autocorrelation Test

F-Statistic	1.127335
Obs*R-squared	8.702084
Prob. F (4,10)	0.3972
Prob. Chi Square (4)	0.0690

Source: Processed from the results of Eviews 13 (2024) ***Model Stability Test***

Figure 2 displays the outcome of the CUSUM and CUSUM-Square tests. The CUSUM test findings indicate that the model remains stable for long-term decision-

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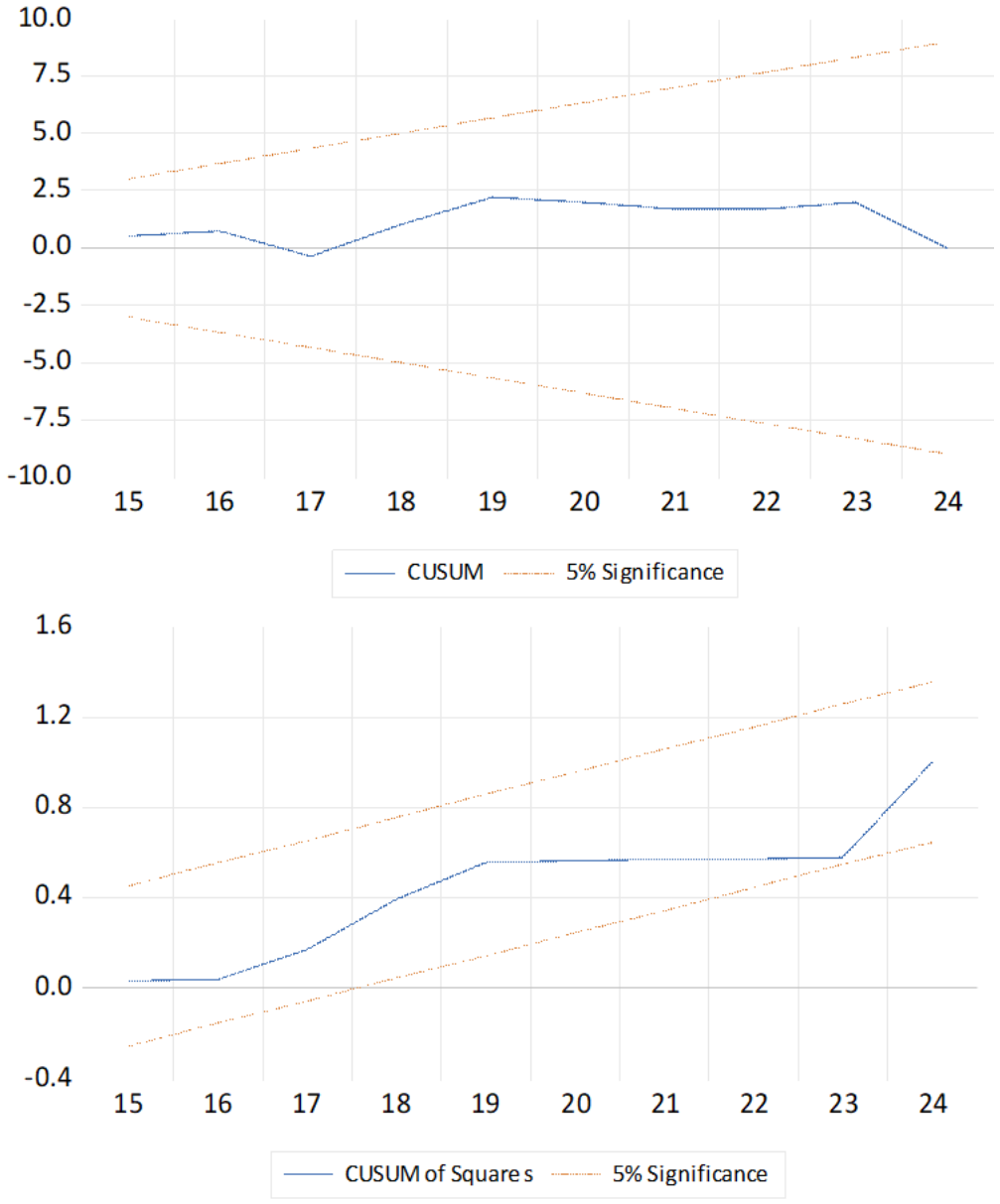
making, as the CUSUM line falls between the 5% significance thresholds. In the meantime, the CUSUM-Square test outcomes remain stable as the CUSUM-Square line continues to be positioned between the 5% significance lines.

Figure 2. Cusum Test and Cusum of Squares Test



The results of the ARDL estimation will demonstrate the effect of independent variables and control variables on the dependent variable, both in the short term and the long term. If the variable's probability value is lower than the significance thresholds of 1%, 5%, or 10%, then the variable has a significant effect on the dependent variable. Conversely, if the variable's probability value exceeds the established significance level, then it does not significantly impact the dependent variable.

Table 7. Short-Term and Long-Term Estimation Results

Variable	Coefficient	Probability
CointEq(-1)	-0.354342	0.0000
GDP(-1)	0.645658	0.0004
VEX	-0.011502	0.8479
VEX(-1)	0.026456	0.7367
VEX(-2)	-0.034583	0.6917
VEX(-3)	-0.148446	0.0990
VEX(-4)	-0.181954	0.0553
NEX	0.151716	0.0783
NEX(-1)	0.111069	0.3100
NEX(-2)	0.098515	0.2740
NEX(-3)	-0.005998	0.9396
NEX(-4)	0.080465	0.2204
KURS	-0.852900	0.0000
KURS(-1)	0.577175	0.0001
KURS(-2)	0.168061	0.0211
KURS(-3)	0.145012	0.0891
KURS(-4)	0.120457	0.0943
RESESI	-0.022227	0.6263
C	2.607412	0.0161

Source: Processed from the results of Eviews 13 (2025)

Based on Table 7, the results of the short-term and long-term estimations are as follows.

$$GDP = 2.61 - 0.01VEX + 0.15NEX - 0.85KURS - 0.02RESESI$$

According to the estimates above, it is evident that if the export volume, export value, exchange rate, and recession remain constant in the short term, Indonesia's economic growth will increase by 2.61 percent. If the exchange rate increases by $ 1, economic growth in the short term will decrease by 0.85%. If the export value increases by one percent, then economic growth increases by 0.15 percent. In contrast, the export volume is not a significant factor in affecting economic growth, as the probability exceeds 5%. Moreover, if a recession occurs, economic growth will decrease by 0.02 percentage points compared to the growth rate without a recession.

Based on the estimation results, there is a significant relationship between past economic conditions and current economic conditions. Each 1% increase in the previous period's Gross Domestic Product (GDP) contributes to a 0.646% increase in the current GDP. These findings suggest the presence of dependency effects or inertia in the Indonesian economy, indicating that past economic growth tends to persist into subsequent periods,

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creating a momentum effect. The performance of the previous year's GDP can influence current investment decisions, consumption, and economic policies, thereby significantly impacting current economic growth.(Barument et al., 2012; Wang & Xiao, 2023).

The exchange rate variable (Rupiah to U.S. Dollar) exhibits a highly significant effect on GDP, indicating that the depreciation of the rupiah against the U.S. dollar has a strong negative impact on Indonesia's economy in the short term. Based on the research results, it is evident that the exchange rate variable has a negative impact on Indonesia's short-term economic growth. Empirical analysis suggests that a 1% increase in the exchange rate—reflecting a depreciation of the Indonesian rupiah relative to the US dollar—results in a 0.85% reduction in economic growth. Exchange rate depreciation can increase import costs and reduce domestic purchasing power, thereby lowering GDP. However, the effect of the rupiah exchange rate at KURS(-1) shows a significant positive relationship, with a coefficient of 0.5772 and a p-value of 0.0001. This suggests that changes in the exchange rate in the previous period can positively contribute to Indonesia's GDP. A depreciation that occurred in the past may enhance the competitiveness of Indonesian products in international markets, including coffee exports, thereby stimulating economic growth.

In the subsequent lags (KURS(-2), KURS(-3), KURS(-4)), although the coefficients remain positive, their magnitude gradually decreases. This suggests an adjustment process within the Indonesian economy to exchange rate fluctuations, whereby the effects of currency changes are not immediately realized but yield positive impacts after several periods. Arintoko et al. (2024), Mukhlis et al. (2020), and Thorbecke (2020) further emphasize that the depreciation of the rupiah hampers economic performance by reducing domestic purchasing power and undermining investor confidence. They argue that the decline in the rupiah's value against the U.S. dollar can be attributed, in part, to monetary policy actions undertaken by the United States government. Such policies include increases in the federal funds rate and the reduction of U.S. dollar liquidity in global financial markets, both of which strengthen the U.S. dollar and exert downward pressure on emerging market currencies, including the rupiah.

These dynamics highlight the sensitivity of Indonesia's economic performance to global monetary policy shifts, underscoring the importance of maintaining macroeconomic stability and implementing effective exchange rate management strategies to mitigate adverse impacts on growth. Sunariyah (2006) states that fluctuations in the Indonesian economy are reflected in changes in the rupiah exchange rate. The impact of this depreciation can lead to a decrease in the level of social welfare and has the potential to hinder economic growth. This condition means that the strengthening rupiah exchange rate is considered positive by global investors for the domestic economy, which can increase investors' risk appetite for domestic financial market assets. This can then encourage a sustainable inflow of foreign capital, which in turn can accelerate economic growth in Indonesia.

The coffee export volume (VEX) demonstrates an inconsistent effect on GDP in the short term. For VEX(-3) and VEX(-4), the coefficients are negative and significant

at the 10% and 5% levels, with p-values of 0.0990 and 0.0553, respectively. This result suggests that a decline in coffee export volume during these periods can lead to a reduction in GDP in the subsequent period. However, for other lags (VEX, VEX(-1), VEX(-2)), the effect is not significant, with p-values greater than 0.05. Scientifically, the negative impact of coffee export volume can be explained by fluctuations in global prices and demand. During the period 1999–2004, coffee prices reached their lowest real level, primarily due to oversupply. Consequently, when output/volume increases while demand remains stagnant, export value may decline (Ghoshray & Mise, 2025). In addition, internal factors also influence Indonesia's coffee export volume, such as coffee production, cultivated area, domestic coffee prices, and domestic consumption (Prajanti et al., 2020). state that when coffee consumption in destination countries increases, demand for Indonesian coffee rises. This can reduce domestic coffee availability, thereby increasing local prices and decreasing household consumption or downstream sector production, ultimately lowering domestic GDP (Ashardiono & Trihartono, 2024; Megautami & Utomo, 2023).

The coffee export value (NEX) exhibits a positive effect on GDP, with a coefficient of 0.1517 and a p-value of 0.0783. This finding suggests that an increase in the value of coffee exports can contribute to Indonesia's GDP growth. Although not statistically significant at the 5% level, the value of coffee exports remains a significant component of the national economy, particularly in generating state revenue. The positive coefficient highlights the significant impact of international coffee prices on Indonesia's economic performance. An increase in global coffee prices can raise the value of coffee exports, which in turn stimulates GDP growth. Megautami & Utomo (2023) emphasize that fluctuations in global coffee prices create uncertainty, which in turn influences the value of Indonesia's coffee exports. However, at other lags (NEX(-1), NEX(-2), NEX(-3), NEX(-4)), no statistically significant effects are observed. Suryana et al. (2024) further argue that exports in Indonesia do not exhibit a substantial impact on economic growth because they remain largely dominated by primary commodities and low-value-added products, which have limited capacity to drive substantial and sustainable economic expansion. This result aligns with Romer'sRomer's (1994) perspective in endogenous growth theory, as presented in Chandra (2022), which highlights that value addition and innovation in export products are crucial drivers for accelerating economic growth. Since Indonesia's exports have yet to reach optimal levels in these aspects, their contribution to GDP remains relatively limited.

Recession does not have a statistically significant effect on GDP, with a coefficient of -0.0222 and a p-value of 0.6263. This suggests that, although recessionary conditions can influence the economy, their impact is not substantial enough to affect GDP within the framework of this model directly. In the context of the Indonesian economy, other factors—such as coffee export volume and value—play a more significant role in driving economic growth. The lack of statistical significance for the recession variable may be attributed to its effects being more long-term in nature or not fully captured by the variables employed in the model.

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Syaifudin et al. (2024) note that Indonesia consistently implements rapid expansionary fiscal and monetary policies during periods of crisis, such as tax incentives, increased government spending, and interest rate reductions. These measures effectively mitigate output decline, thereby rendering the impact of recessions on GDP statistically insignificant. According to the Ministry of Finance (2025), Indonesia's economy benefits from a balanced combination of manufacturing, agriculture, and services sectors, which enhances resilience to global shocks. Furthermore, the country's large and relatively stable household consumption enables Indonesia to maintain positive growth or experience only minor contractions during global crises. In certain quarters, household consumption can account for more than 50% of total GDP.

The coefficient of CointEq(-1), valued at -0.354342 with a very small p-value (0.0000), indicates the presence of cointegration among the variables in this model. This finding suggests a stable long-term relationship between GDP, VEX, NEX, the exchange rate (KURS), and RECESSION. The negative and statistically significant CointEq(-1) coefficient implies that any long-term disequilibrium in this model will be corrected at an adjustment speed of 35.43% per period. In other words, when deviations from the long-term equilibrium occur, the model will adjust to correct these deviations significantly and within a relatively short time frame.

CONCLUSION

This study examines the short- and long-term impacts of the exchange rate, coffee export volume, and coffee export value on Indonesia's economic growth, as well as the influence of recessions. The findings suggest that the exchange rate has a significantly negative impact on economic growth in both the short and long term. In contrast, the value of coffee exports has a positive long-term influence on economic growth, although its short-term impact is neither consistently positive nor statistically significant. The coffee export volume demonstrates an inconsistent and statistically insignificant effect on GDP in the short term, and this effect remains insignificant in the long term. Interestingly, the recession does not exhibit a statistically significant effect on GDP in this model, likely due to the effectiveness of mitigation policies. These results underscore the importance of effective exchange rate management and the improvement of coffee export quality as key strategies for fostering sustainable economic growth in Indonesia.

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