



DOES THE INCREASE IN COFFEE PRICES INCREASE INDONESIAN COFFEE IMPORTS?

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ABSTRACT

This research examines the extent to which escalating global coffee prices influence Indonesia's coffee import behavior by analyzing the interplay of macroeconomic variables and industrial demand. Utilizing monthly time series data spanning from January 2018 to May 2025, the investigation employs an Autoregressive Distributed Lag (ARDL) model to delineate both short-run and long-run dynamics. The findings indicate that, in the short term, coffee imports diminish as a consequence of inflation and depreciation of the exchange rate, which is indicative of traditional cost-based adjustments. Conversely, in the long term, episodes of increased coffee prices correlate with a notable surge in imports. This trend suggests that Indonesia's coffee import activities are motivated less by price deterrents and more by structural demand forces, particularly domestic supply limitations and ongoing processing requirements. The results imply the presence of imperfect price transmission and derived import demand within Indonesia's coffee market, indicating that the dual function of the nation as both an exporter and importer may underscore inherent rigidity in domestic supply capabilities rather than solely market-driven trade reactions.

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1. INTRODUCTION

The global coffee market has demonstrated increasingly significant and erratic price dynamics in recent years. The augmentation in coffee prices has been precipitated not solely by extreme meteorological events and production disruptions but also by fundamental transformations within the global supply chain, coupled with an increase in international economic uncertainty. Yusrin (2023) emphasizes that the imperatives for sustainability and the associated production costs have transitioned the coffee price framework from a cyclical model to one characterized by enhanced persistence. Recent investigations encapsulated by Manik et al. (2024) further suggest that the escalation in coffee prices since the commencement of the 2020s reflects an interaction between supply constraints and alterations in global demand. These conditions render coffee an increasingly vulnerable commodity to price volatility, carrying direct implications for international trade patterns and import strategies in both consumer and producer countries.

Theoretically, rising commodity prices are hypothesized to suppress import demand due to increased trade costs. However, this relationship does not invariably materialize in a linear manner in empirical contexts. Qian et al. (2023) illustrated that international commodity price shocks can provoke diverse trade responses contingent upon the economic structure and domestic adjustment mechanisms that are extant. Within the framework of emerging economies, imports frequently remain elevated despite rising prices, particularly when the commodity in question is pivotal to the industrial sector. This observation is consistent with the findings articulated by Sokhanvar & Bouri (2023), which contend that price and exchange rate shocks can exert asymmetric impacts on trade flows. For Indonesia, this dynamic prompts a critical inquiry into whether the escalation in coffee prices is indeed driving an increase in imports to sustain the viability of domestic industrial activities.

The trend of Indonesian coffee imports over the 2018–2024 period shows a fluctuating pattern marked by an initial decline followed by a strong recovery phase. Between 2018 and 2020, coffee imports decreased significantly, reflecting a contraction in trade activity and weakening demand, particularly during the early phase of the COVID-19 pandemic. The lowest point occurred in 2020, indicating the peak of disruption in both global and domestic economic conditions.

Beginning in 2021, the trend reversed as imports started to increase substantially. This upward trajectory accelerated in 2022 and continued into 2023, when imports reached their highest level during the observed period. This surge suggests a recovery in economic activity alongside rising demand for coffee, both for consumption and industrial purposes. It also points to limitations in domestic production capacity, necessitating greater reliance on imports to meet internal demand. Notably, this increase occurred despite rising global coffee prices, indicating that demand pressures outweighed cost considerations. In 2024, coffee imports declined again, suggesting a possible market correction. This decrease may reflect adjustments to global price fluctuations, improvements in domestic supply, or policy efforts aimed at stabilizing the market and reducing dependency on imports.

Aligned with the trends illustrated in the Indonesian coffee import data, which reveals a pronounced escalation following 2021 despite a general uptrend in global prices, the existing empirical literature corroborates the notion that fluctuations in commodity prices do not always lead to proportional modifications in domestic trade patterns. Emediegwu & Rogna (2024) elucidate that the transmission of price signals from global markets to local markets within emerging economies often exhibits inefficiencies, thus permitting price increases to coincide with heightened imports, particularly when domestic supply capacities are restricted. In this context, Adjemian et al. (2022) contend that disturbances in supply chains and export restrictions can instigate export diversion, which, in turn, amplifies import necessities. Therefore, the rise in coffee imports observed after 2021 constitutes a counterintuitive reaction in trade dynamics; however, it aligns with the constraints of domestic supply and the qualitative requirements of the industry.

A multitude of scholarly studies have also highlighted the significant role of macroeconomic variables in mediating the impacts of price shocks on import levels. Sokhanvar & Bouri (2023) demonstrate that shocks to commodity prices frequently interact with variations in exchange rates, thereby producing asymmetric effects on import costs and trade decisions across both short- and long-term timeframes.

Simultaneously, Qian et al. (2023) emphasize that the sensitivity of imports to price shocks is predominantly dependent on the existing levels of economic activity and industrial demand, as evidenced by production indicators. Within this analytical paradigm, imports are conceptualized not merely as reactions to price fluctuations, but as derivative demands arising from domestic economic engagement. Nevertheless, it is important to note that the majority of these investigations have predominantly focused on energy or mineral commodities, thereby leaving empirical evidence regarding coffee, particularly in relation to producer and importer nations such as Indonesia, relatively sparse.

While coffee assumes a crucial role within the economic architecture of Indonesia, empirical studies specifically examining the complexities of coffee imports remain remarkably limited. The majority of existing scholarship pertaining to coffee in Indonesia is predominantly oriented towards

aspects related to production, export competitiveness, and the development of the upstream sector. Tampubolon et al. (2023) emphasized that investigations into the Indonesian coffee trade primarily concentrate on dimensions of supply and export performance, whereas the import facet tends to receive inadequate scholarly focus. A similar assertion was made by Lubis & Lubis (2024), who remarked that the discourse surrounding national coffee policy predominantly underscores the minimization of trade barriers and the promotion of export activities. Consequently, the implications of rising coffee prices on imports, especially through the interaction of macroeconomic variables and industrial operations, have not been rigorously examined. This scarcity of literature is particularly noteworthy considering Indonesia's dual function as both a producer and an importer of coffee.

Notwithstanding the expanding body of literature on commodity price shocks and trade flows, several significant gaps persist. Firstly, a majority of empirical investigations primarily concentrate on energy and mineral commodities, while evidence concerning agricultural commodities, particularly coffee in dual-role nations such as Indonesia, remains limited. Secondly, prior studies typically utilize annual data, which may obscure short-term adjustment dynamics in import behaviors. Thirdly, the Indonesian scenario is frequently analyzed from the perspectives of export or production, consequently leaving the import adjustment mechanism in the context of increasing global prices relatively underexplored (Lee & Fernando, 2021). From the theoretical perspective of import demand, elevated international prices should ostensibly diminish import volumes through the price elasticity channel; however, when the commodity in question functions as a vital industrial input and domestic supply is constrained, the price–import relationship may become attenuated or even exhibit a positive correlation (Ketema, 2020). Therefore, empirical validation is necessary to ascertain whether Indonesia's coffee imports adhere to the conventional demand response or illustrate structural dependence and imperfect price transmission.

From the perspective of import demand theory, it is generally posited that the magnitude of imports is anticipated to diminish in response to increases in international prices, thereby illustrating the inverse price elasticity of import demand alongside elevated relative import expenditures. Under typical circumstances, domestic consumers tend to shift towards locally sourced inputs when the cost of imported goods escalates. Nonetheless, this traditional mechanism may be attenuated when the imported commodity serves as a crucial intermediate input with restricted domestic substitutability (Yuliana & Ardansyah, 2022). In such instances, import demand may exhibit relative price inelasticity, becoming more significantly influenced by domestic industrial activity and supply limitations. Within Indonesia's coffee sector, where quality differentiation and the export focus of domestic beans are salient, the nature of the price–import relationship transforms into an empirical inquiry rather than a theoretical absoluteness.

In consideration of these observations, the current study aims to examine the degree to which escalating coffee prices affect Indonesian coffee imports, while also addressing the implications of macroeconomic variables and industrial operations. Specifically, this research meticulously analyzes the effects of inflation, exchange rates, and indices of industrial production on coffee imports, and assesses whether periods marked by rising coffee prices instigate structural changes in import behaviors. By employing a dynamic analytical framework that distinguishes between short- and long-term relationships, this study endeavors to provide a more refined understanding of the adjustment mechanisms that regulate coffee imports in Indonesia. The expected results of this investigation are anticipated to not only enhance the existing corpus of literature concerning agricultural commodity trade but also generate policy implications relevant to the governance of domestic coffee supplies amidst global price volatility.

2. RESEARCH METHODS

This scholarly investigation aims to scrutinize the dynamics pertinent to Indonesian coffee imports in the aftermath of a significant surge in coffee prices, emphasizing the ramifications of such price volatility on import trends in both the short-term and long-term contexts.

The primary focus of this inquiry is to elucidate the sensitivity of coffee imports as a strategic response to fulfill domestic demand in the face of price pressures and shifting macroeconomic conditions. The increase in coffee prices is conceptualized as an external disturbance that has the potential to modify supply preferences, as evidenced by the behavioral adaptations of domestic producers and the exigencies of the coffee processing industry within the country, thereby making it essential for empirical scrutiny within the paradigm of Indonesian trade.

The dataset utilized in this examination encompasses monthly time series data spanning from January 2018 to May 2025. The selection of this temporal framework was deliberately devised to encapsulate the conditions both preceding and following the ascension in global coffee prices that began its upward movement in 2022, thus enabling a comparative analysis of import dynamics both prior to and in the wake of the price shock. The scope of the study is primarily directed towards coffee imports into Indonesia, without regard to the country of origin, with the aim of generating a holistic overview of the national import response. Data have been procured from official sources that reliably furnish trade statistics and macroeconomic indicators.

The research framework was developed with coffee imports classified as the dependent variable, while the independent variables included inflation rates, exchange rate fluctuations, industrial production indices, in addition to dummy variables that signify increases in coffee prices. The dummy variables associated with coffee prices are employed to clarify structural changes that transpire during episodes of price surges. The estimation technique adopted is the Autoregressive Distributed Lag (ARDL) model, which facilitates the concurrent examination of both short-term and long-term relationships. This methodological choice was made due to its suitability for time series data that demonstrate varying levels of integration and its ability to comprehensively capture the dynamics of coffee import adjustments in response to shifts in economic conditions and price fluctuations (Ketema, 2020).

The ARDL framework is particularly advantageous for this investigation for multiple reasons. Firstly, the variables incorporated in this study display mixed orders of integration, specifically I(0) and I(1), which renders ARDL more appropriate than traditional cointegration methods that necessitate a uniform integration order. Secondly, the monthly sample size is comparatively modest, and ARDL is widely recognized for delivering efficient and unbiased estimates in small-sample time series contexts. Thirdly, the model permits the simultaneous estimation of short-run dynamics and long-run equilibrium relationships, which is crucial for accurately capturing the adjustment behaviors of import demand in the aftermath of global price shocks. Consequently, ARDL offers a versatile and theoretically robust framework for analyzing the dynamics of Indonesia's coffee imports.

The estimation model in this study is:

$$\ln IMP_t = \alpha + \sum_{j=0}^{n_4} \beta_1 \Delta INF_{t-j} + \sum_{j=0}^{n_4} \beta_2 \Delta EXH_{t-j} + \sum_{j=0}^{n_4} \beta_3 \Delta IPI_{t-j} + \sum_{j=0}^{n_4} \beta_4 \Delta KHK_{t-j} + \delta_1 INF_{t-1} + \delta_2 EXH_{t-1} + \delta_3 IPI_{t-1} + \delta_4 KHK_{t-1} + \varepsilon_t \dots \dots \dots (1)$$

The variables used in this study include $\ln IMP_t$ which is defined as the total Indonesian coffee imports in period t sourced from the Trade Map; INF_t which represents Indonesia's inflation rate in period t obtained from the World Bank; EXH_t which shows the Rupiah exchange rate against the USD in period t sourced from the OECD; and IPI_t which is the Indonesian Production Index in period t. In addition, a dummy variable KHK_{t-j} is used to mark the start of the coffee price increase, with a value of 0 for the period before 2022 and a value of 1 for the period after 2022.

This study proposes several hypotheses to analyze the factors influencing coffee imports to Indonesia. H1 states that the inflation rate has a significant negative effect on coffee imports to Indonesia. H2 states that the rupiah exchange rate against the US dollar has a significant effect on coffee imports to Indonesia. H3 states that the Industrial Production Index has a significant effect on coffee imports to Indonesia. H4 states that increases in coffee prices have a significant effect on coffee imports to Indonesia.

The estimation methodology employed in this research utilizes the Autoregressive Distributed Lag (ARDL) model, owing to its adaptability in accommodating variables integrated at differing orders, specifically $I(0)$ and $I(1)$, without necessitating uniform stationarity. This methodology is exceptionally appropriate for relatively small monthly datasets and facilitates the simultaneous estimation of both short-run dynamics and long-run equilibrium relationships. Such characteristics render ARDL extensively utilized in investigations pertaining to agricultural commodities and trade susceptible to price volatility and structural transformations (Nasrullah et al., 2021). Prior to the estimation process, unit root testing was executed utilizing the Augmented Dickey–Fuller (ADF) methodology at both level and first-difference forms. The outcomes corroborate that no variable is integrated of order two ($I(2)$), thereby fulfilling the essential prerequisite for ARDL application and mitigating the likelihood of spurious regression within the time-series context.

Subsequent to the assessment of stationarity, the bounds testing approach to cointegration was employed to ascertain the presence of a long-run equilibrium relationship among the variables, utilizing the decision rule posited by Pesaran et al. (1996). The optimal lag structure was determined based on information criteria to avert model overparameterization and to ensure effective estimation. Once cointegration was confirmed, the ARDL specification was reconfigured into an Error Correction Model (ECM) to encapsulate the rate of adjustment towards long-run equilibrium. This methodological progression allows the model to differentiate between short-run responses and long-run structural impacts of macroeconomic shocks on import behavior. Prior research illustrates that ARDL is adept at scrutinizing import dynamics amidst price volatility and policy disruptions within developing-country agricultural markets (Indrasto et al., 2025).

The incorporation of control variables is informed by import demand theory and antecedent empirical investigations. Inflation is included to encapsulate domestic price pressures and purchasing power effects that may suppress import demand. The exchange rate embodies the relative price of imported goods and exerts a direct influence on import costs. The Industrial Production Index (IPI) acts as a surrogate for domestic industrial activity, signifying derived demand for imported coffee as an intermediary input. Concurrently, the coffee price increase dummy encapsulates the structural shift in global coffee prices that commenced in 2022. To ascertain model adequacy, a series of post-estimation diagnostics were executed, encompassing the Breusch–Godfrey LM test for autocorrelation, the Breusch–Pagan test for heteroscedasticity, the Jarque–Bera test for normality, the Ramsey RESET test for functional form, and CUSUM–CUSUMSQ tests for parameter stability.

3. RESULTS AND DISCUSSION

3.1. RESULTS

According to the results delineated in Table 1, the outcomes derived from the stationarity evaluation suggest that the variables incorporated within the model manifest disparate levels of integration, specifically, they are integrated at the orders of $I(0)$ and $I(1)$.

Table 1. Stationary Model Test

Variable	Stationary	
	I_0	I_1
<i>lnIMP</i>	0.009	0.000
<i>INF</i>	0.000	0.000
<i>EXH</i>	0.188	0.000
<i>IPI</i>	0.001	0.000

The variables *LNiMP*, *INF*, and *IPI* are distinguished by their stationarity in level form, whereas *EXH* is not stationary at the level but achieves stationarity following the first differentiation. The absence of variables integrated at the order $I(2)$ reinforces the assertion that the model fulfills the requisite conditions for employing the ARDL methodology to examine both short- and long-term interrelationships among the variables.

Table 2. Bound F-Test Model

Value	F-stat	t-stat
	3.047	-2.947
10% ($I_0 - I_1$)	2.686 – 3.883	-2.491 – -3.348
5% ($I_0 - I_1$)	3.225– 4.555	-2.818 – -3.712
1% ($I_0 - I_1$)	4.447– 6.052	-3.463 – -4.413
P-Value	0.063	0.037

According to the empirical evidence delineated in Table 2, the outcomes of the bounds F-test indicate an F-statistical value of 3.047, which is situated between the predefined lower and upper limits at a significance threshold of 10%, coupled with a p-value of 0.063. These findings imply a marginal suggestion of a long-term cointegration association. Nonetheless, the significant t-statistical value further corroborates the claim that the long-term interrelation among the variables is essential for further investigation within the Autoregressive Distributed Lag (ARDL) methodology. Consequently, the evaluation of the long-term relationship accentuates the robustness of the coefficient signs and the importance of the Error Correction Term (ECT).

Table 3. Model Validity Test

Test	Value	Prob.
Autocorrelation (Breusch-Godfrey)	1.119	0.290
Normality (Jarque-Berra)	1.573	0.455
Linierity (Ramsey-RESET)	1.880	0.112
Heteroscedasticity (Breuch-Pagan)	1.676	0.311
Model Stability (Sbcusum)	0.947	1.064

Source: Author, (2026)

According to Table 3, the results of the evaluation of classical assumptions demonstrate that the Autoregressive Distributed Lag (ARDL) model is free from issues of autocorrelation and heteroscedasticity, in addition to displaying a residual that adheres to a normal distribution, as indicated by the probability values of each respective assessment exceeding the 5% significance level. Moreover, the assessments of model stability imply that the parameters maintain their integrity throughout the entire observation period. Furthermore, the Ramsey RESET test reveals linearity, thereby affirming its applicability for both short-term and long-term analytical endeavors.

Table 4. ARDL Estimation

Variable	Short Run		Long Run	
	Coefficient	Lag	Coefficient	Lag
<i>C</i>	9.6847*	-	-	-
<i>INF</i>	-0.20878*	L1	-0.1053*	L1
<i>dEXH</i>	-0.00046*	L3	0.0009*	L1
<i>IPI</i>	0.00486	L3	-0.0038	L1
<i>KHK</i>	0.51387	L1	0.6822*	L1
<i>ECT</i>	-0.8957	(1-/ECT)	111,6%	

According to Table 4, in the short run, the Autoregressive Distributed Lag (ARDL) estimates elucidate that inflationary pressures and the depreciation of the exchange rate exert a detrimental and statistically significant influence on coffee imports. From an economic perspective, this implies that importers exhibit a swift response to escalating domestic cost pressures and elevated relative import prices by temporarily reducing import quantities. The magnitude of the coefficients suggests a short-run cost sensitivity that aligns with conventional theories of import demand behavior.

Conversely, the Industrial Production Index and the dummy variable for coffee price increases do not demonstrate statistical significance within the short temporal framework, signifying that adjustments in industrial demand and global pricing structures necessitate a temporal lag before being reflected in import decisions. Such a delayed response is characteristic of intermediate-input commodities, wherein procurement agreements and inventory management practices mitigate immediate adjustments.

In the long run, however, the findings indicate a positive and statistically significant relationship between rising coffee prices and Indonesia's coffee imports. This outcome diverges from the conventional prediction of price-elastic import demand, instead indicating a structurally driven reliance on imports. The positive coefficient for the long-run exchange rate further implies a limited sensitivity to price changes, suggesting that imported coffee serves as a pivotal industrial input rather than merely a discretionary commodity. Furthermore, the substantial negative coefficient of the Error Correction Term (ECT) corroborates a swift convergence towards long-run equilibrium in the aftermath of short-run disturbances. Collectively, these dynamics suggest that the coffee import behavior of Indonesia is ultimately influenced more by domestic supply limitations and sustained processing demands than by short-term price disincentives, which holds significant implications for trade resilience and supply chain policy.

3.2. DISCUSSION

In the short term, the anticipated results suggest that the imports of Indonesian coffee demonstrate a significant susceptibility to variations in macroeconomic factors, particularly with respect to inflation rates and currency exchange rates. A rise in inflation is projected to adversely affect coffee imports in the near term, as it signifies the initial adjustments made by business operators in response to escalating costs and uncertainties associated with domestic pricing.

This detrimental response is consistent with the findings articulated by Ahmad et al. (2024), which assert that inflationary pressures may reduce import demand by eroding purchasing power and constraining consumer expenditure choices. Conversely, a decline in exchange rates directly amplifies import costs, thereby motivating importers to defer or diminish import quantities in the short term. This occurrence aligns with the positions espoused by Gupta & Varshney (2022), who argue that variations in exchange rates exert a rapid and restrictive influence on trade dynamics, particularly in the early stages of adjustment.

Beyond mere statistical relevance, the extent of the estimated coefficients indicates economically significant adjustment mechanisms. The short-run coefficients pertaining to inflation and exchange rates reveal that import volumes respond in proportion to cost-induced pressures, suggesting that importers modify procurement strategies when confronted with elevated relative prices. Nonetheless, the affirmative long-run coefficient of the coffee price increase dummy implies that, over time, structural demand pressures surpass cost-related disincentives (Qian et al., 2023). This suggests that the demand for coffee imports in Indonesia is relatively less reactive to sustained price escalations when domestic supply limitations are present. In economic parlance, these findings imply that import demand is conditionally inelastic in the long run, reflecting the function of imported coffee as an intermediate input rather than as a final consumption commodity.

These conclusions bear significant implications for Indonesia's domestic production capacity and trade policy framework. As a predominant coffee exporter, Indonesia allocates a considerable proportion of superior-quality beans to international markets, thereby potentially restricting availability for domestic processors. When global prices surge, export incentives may further constrict domestic supply, leading to an increased dependence on imports to sustain industrial operations. This trend suggests that the growth of imports during periods of elevated prices may indicate structural inflexibility in domestic supply rather than enhanced competitiveness.

From a policy standpoint, this highlights the necessity of augmenting productivity, advancing quality standards, and coordinating domestic supply to mitigate structural reliance on imported beans while preserving export performance. In alignment with the short-run estimates, the Industrial Production Index and the coffee price dummy fail to exert an immediate influence on import behavior, signifying a delayed transmission of industrial demand and global price signals (Sokhanvar & Bouri, 2023).

The long-term findings substantiate the structural interpretation positing that ascending coffee prices correlate with an augmented demand for imports in Indonesia. These findings suggest that price increases do not impede imports; rather, they serve as a catalyst for heightened import volumes through structural adjustment mechanisms. Emediegwu & Rogna (2024) elucidate that the transmission of prices from international markets to domestic contexts in emerging economies frequently exhibits discrepancies, whereby escalations in global prices can redirect domestic supply towards export markets, consequently constraining domestic availability. This scenario creates incentives for industry stakeholders to increase imports to sustain production processes. Furthermore, Adjemian et al. (2022) emphasize that supply disruptions and global trade policies can generate effects of export diversion, which, over the long term, reinforce reliance on imports despite the rise in international prices.

In addition to the implications of pricing, the long-term findings further indicate that coffee imports exhibit relative inelasticity in response to exchange rate fluctuations and are profoundly influenced by industrial activity. Qian et al. (2023) argue that in economies characterized by significant industrial demand, imports are typically conceptualized as derivative demand that demonstrates reduced sensitivity to transient price changes. This observation is consistent with the characteristics of coffee imports in Indonesia, which serve as an essential input for the processing industry. The mechanism of long-term adjustment is also evidenced by a negative and statistically significant error correction coefficient, indicating a process of adjustment towards a long-term equilibrium following a disturbance. Therefore, the dynamics governing Indonesian coffee imports in the long term are more significantly shaped by the structural demands of the industry than by transient price fluctuations (Malau et al., 2022).

The outcomes derived from this research carry substantial implications for the governance of Indonesia's coffee trade, especially in the context of rising global market prices. Longitudinal findings that reveal an increase in imports following a surge in coffee prices highlight a potential risk of over-reliance on external supply when domestic stocks are depleted due to export activities. Tampubolon et al. (2023) have confirmed that the pronounced export orientation of the Indonesian coffee sector may place pressure on the availability of domestic raw materials, particularly within the processing domain. In such scenarios, imports act as a compensatory mechanism to ensure the continuity of production. Nevertheless, an increased reliance on imports simultaneously elevates vulnerability to price fluctuations and disruptions in global supply, thereby necessitating the development of a more adaptable policy framework (Samir et al., 2024).

From a policy perspective, these empirical findings highlight the imperative for a more integrated strategy that harmonizes trade policy, industrial considerations, and the stabilization of domestic coffee supplies. Lubis & Lubis (2024) emphasized the fundamental necessity to reduce trade barriers while simultaneously enhancing the governance of the national coffee supply chain, thereby averting excessive dependence of industry stakeholders on imports in times of price volatility. Furthermore, policies designed to buffer supply and elevate the quality of domestic production may function as strategic instruments to alleviate the adverse effects of global price escalations (Kartika et al., 2025). Consequently, the regulation of coffee imports should not merely be regarded as a transient measure in response to price fluctuations, but rather as an integral element of a comprehensive long-term strategy aimed at sustaining the robustness of the national coffee sector in the context of the global market's dynamics.

From a policy standpoint, these findings suggest that Indonesia's growing dependence on coffee imports amidst escalating global prices may indicate intrinsic inflexibility within domestic supply capabilities. Should domestic production continue to prioritize export markets, the processing industry may increasingly rely on imported raw materials, rendering the sector vulnerable to external price volatility. This scenario underscores the necessity for a more balanced coffee development strategy that concurrently fortifies upstream productivity, enhances quality improvement for domestic processors, and optimizes supply chain coordination (Safira & Setyowati, 2025). In the absence of such reforms, Indonesia's dual status as both a significant coffee exporter and importer may endure, potentially undermining domestic value addition over the long term.

4. CONCLUSION

This research investigates the intricate dynamics surrounding Indonesia's coffee imports as a reaction to the escalating global coffee prices, utilizing a macroeconomic framework alongside industrial activity within an Autoregressive Distributed Lag (ARDL) model. The empirical findings indicate that, in the short term, coffee imports diminish in the face of inflationary pressures and depreciation of the exchange rate, signifying a cost-sensitive adjustment mechanism employed by importers. Conversely, in the long term, phases characterized by rising coffee prices correlate with augmented import volumes, suggesting that the determinants of Indonesia's coffee imports are fundamentally influenced by domestic supply limitations and persistent processing demand, as opposed to being driven solely by price-related disincentives. These results underscore the notion that coffee imports in Indonesia serve predominantly as a derived demand linked to industrial activity, demonstrating a restricted price responsiveness over the long term.

From a policy perspective, these findings imply the necessity for a more cohesive strategy within the coffee sector. For domestic producers, enhancing productivity, improving quality, and fostering downstream linkages are imperative to mitigate the structural disparities between domestic supply and industrial demand. For regulatory bodies, the continual influx of imports during periods of elevated prices suggests that restrictive import regulations may inadvertently hinder the processing sector unless they are accompanied by enhancements on the supply side. In terms of price stabilization, the government might contemplate the implementation of supply-buffer mechanisms and improved coordination between export incentives and domestic availability to avert excessive dependence on imported coffee beans. In the absence of such interventions, Indonesia's dual capacity as both a prominent coffee exporter and importer may persist in rendering the domestic coffee value chain vulnerable to external market fluctuations.

This study is constrained by several limitations. First, the analysis is predicated on an aggregate import metric that fails to distinguish between coffee quality segments or the countries of origin, which may obscure heterogeneous patterns in trade. Second, the employment of a price increase dummy captures structural transformations but does not adequately model the nuances of continuous price elasticity. Future inquiries could enhance the analysis by integrating disaggregated price data, quality differentiation, or asymmetric price transmission models to further elucidate the intricacies of Indonesia's coffee import behavior.

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