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Determinants Of Chinese Consumer Goods Imports To Indonesia: An Analysis Of The Impacts Of Exchange Rate Transmission, Public Purchasing Power, Digital Trade Penetration, Inflation, And Chinese Producer Prices

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Abstract
This research is intended to examine the impact of the currency exchange rate, public purchasing power, digital trade penetration, inflation, and China's producer prices on Indonesian imports of consumer goods from China during the period January 2016 to December 2025. The research employs secondary information consisting of monthly time-series observations covering January 2016 through December 2025. The dataset was collected from Statistics Indonesia, Bank Indonesia, and China's National Bureau of Statistics. The ARDL (Autoregressive Distributed Lag) approach was applied to examine both short-term and long-term associations among variables with different integration orders, provided that none is integrated of order two. The empirical findings also establish the presence of a cointegrating relationship among the examined variables. In the long run, exchange rates, digital trade penetration, and China's producer prices have positive and significant relationships with import values, while purchasing power has a negative and significant relationship. Inflation has no statistically significant effect. In the short run, exchange rates have a negative significant effect at the second lag, purchasing power has positive significant effects at the first through third lags, and digital trade penetration has a negative significant effect at the first lag. Accordingly, import management policies should consider exchange rate dynamics, Chinese producer prices, and digital transaction developments while strengthening domestic product competitiveness.

Keywords: Consumer goods imports, exchange rate, purchasing power, digital trade, ARDL

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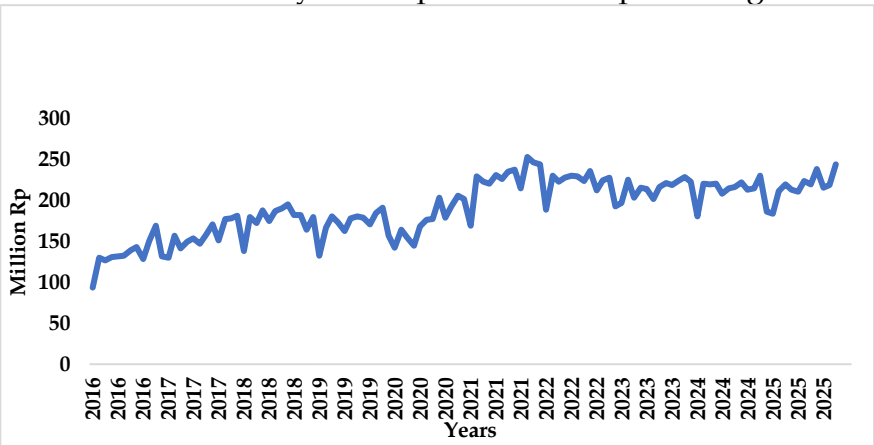
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INTRODUCTION

As the need for and level of household consumption activity increase over time, domestic demand also rises, especially in countries with large populations, particularly in Indonesia. This trend is further supported by an evolving structure of household consumption, so the role of international trade is required to meet domestic needs (Selvina & Nurhayati, 2024). The needs of households for goods whose production within the country remains limited whether in terms of quantity, variety, quality, or price can be met through international trade activities, particularly imports (Al Abri et al., 2023). However, the competitiveness of domestic industries will be

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increasingly pressured as dependence on foreign products grows due to imports (Kinski et al., 2023). According to a publication by the Central Statistics Agency, it is recorded that in 2026, the value of Indonesia's imports was about USD 241.86 billion, increasing to 2.83% when compared with the same period in the preceding timeframe. Of the total import value, China is Indonesia's largest source country of imports, contributing about 41.5% or valued at USD 86.99 billion in 2025, far above the European Union (USD 52.97 billion), Japan (USD 14.42 billion), and the United States (USD 9.84 billion). This dominance is important to examine because it indicates the extent to which Indonesia depends on a single trading partner country to satisfy the daily consumption needs of society, which may affect domestic resilience and the stability of supply if disruptions occur in trade relations between the two countries. Consumer goods such as household electronics, textiles, footwear, processed foods, cosmetics, toys, and other household necessities are among the categories of imported goods from China that form an important area of study because they are directly related to patterns of Indonesian household consumption (Li et al., 2025). Although imported consumer goods provide many benefits to consumers, an ongoing increase in the intensity of importing consumer goods can enlarge the dependence of the domestic market on foreign products. Prakoso & Hasmarini (2022) show that Indonesia's imports of consumer goods are largely influenced by macroeconomic factors. Findings consistent with this perspective are also presented by Mashita (2022), who finds that Indonesia's imports of consumer products are determined by individuals' income levels and by developments in the prices of goods and services.



Graph 1. Trends in the Value of Indonesian Imports of Consumer Goods from China, January 2016–December 2025

(Source: BPS 2016–2025, processed)

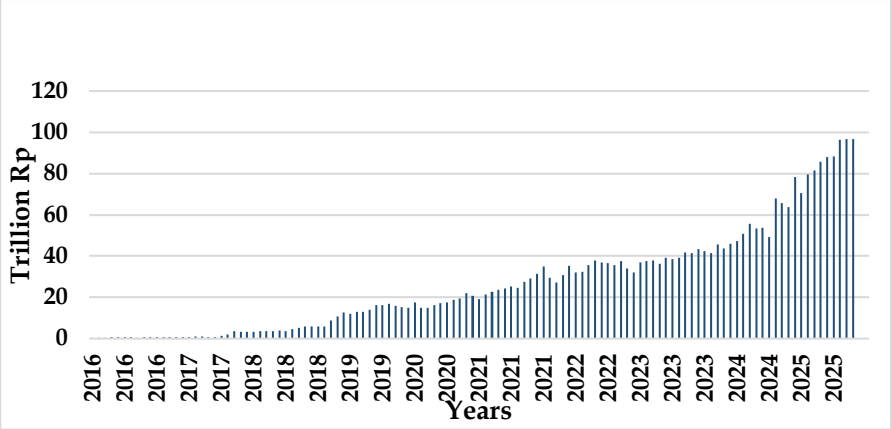
Figure 1 illustrates the trend of Indonesia's imports of consumer goods from China, which generally increases, even though there are monthly fluctuations over that period. This consistent upward trend suggests that demand for consumer goods from China continues to grow in the long run, without any significant sharp decline, despite economic disruptions such as the COVID-19 pandemic in 2020. One factor influencing consumer-goods imports from China is the exchange rate between the two countries' currencies. The exchange rate is a pricing-parameter variable that strongly affects variations in the prices of imported goods in the domestic market (Tarina, 2025). Import demand from the perspective of price variation can decline if the Rupiah depreciates against the Yuan. However, this effect is not absolute because many other

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factors influence both the price and the volume of imports. According to Beirne et al. (2024), among the effects of exchange-rate changes on developing countries in Asia, the relationship is not perfect, so currency weakening is not immediately and fully reflected in higher prices or lower import volumes. Han & Shen (2016) also show that the transmission of exchange-rate changes to the prices of China's exports is shaped by product and firm characteristics, meaning that exchange-rate changes are not always followed by proportional adjustments in export prices. Aisyah & Renggani (2021) further explain that the exchange rate in Indonesia is considered a macroeconomic factor for explaining Indonesia's external trade position. The influence that does not fully suppress imports helps explain why the long-run trend of consumer-goods imports from China continues to rise, even though the Rupiah fluctuates against the Yuan over the same period. Another determinant affecting consumer-goods imports is purchasing power. An increase in purchasing power indicates that households have a greater capacity to buy consumer goods, which entails importing a range of products with different price levels and quality levels according to consumer needs (Mawutor et al., 2023). In this study, the proxy used for purchasing power is the real sales index, which captures monthly developments in retail sales and consumer consumption. Bank Indonesia's report states that the real sales index rose by around 3.5 percent per year in December 2025, largely due to higher sales of several categories of consumer goods (Bank Indonesia, 2025). Research by Ramadhanis & Anward (2025) states that, to explain consumer consumption of consumer goods in Indonesia, the income effect is an important factor to consider. Meanwhile, Alghifari (2024) shows that consumer demand is clearly linked to economic growth and electronic payments.

The growth of digital trade today is inseparable from shifts in consumers' purchasing behavior. Consumers' ways of searching for information, comparing prices, making payment transactions, and purchasing various foreign products have been shaped by digitalization (Bank Indonesia, 2025). Consumers' access to imported goods is likely to become easier as digital trade potentially lowers search and transaction costs. OECD (2024) indicates that digitalization can create cost-efficiency in trade and broaden participation in international commerce. Wang (Avery. W) et al. (2017) examine the role of cross-border electronic trade in China's international trading activity using a transaction-cost approach. In addition, Cao & Hsu (2025) show that digitalization can help reduce geographic barriers and differences in country characteristics in international trade. Ahn & Lim (2025) also find that imports conducted through cross-border e-commerce are influenced by various factors related to macroeconomic conditions and product characteristics. The increasing use of digital payments in Indonesia suggests that society's consumption activities are becoming more closely linked to digital transaction systems (Mindawati & Nugroho, 2025). Therefore, the value of electronic money transactions can be used as a proxy for digital trade penetration, since such transactions reflect the extent to which people shift from conventional payment methods to digital systems.

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Graph 2. Trends in the Transaction Value of Electronic Money as a Proxy for Digital Commerce, January 2016–December 2025
(Source: BPS 2016–2025, processed)

The growth of the value of electronic money transactions as a proxy for digital trade penetration in Indonesia is presented in Figure 2. This indicates that the use of digital payment instruments in consumers' transactions is currently commonplace. Imports of consumer goods can be influenced by domestic inflation, although the magnitude of the effect varies. In general, price surges are likely to weaken people's purchasing power; as a result, demand for consumer goods both imports and domestic production declines further (Rahmayani & Putri, 2021). On the other hand, preferences for foreign products may become more competitive in the market because inflation raises the costs of domestic products relative to foreign ones (Setianingrum dkk., 2026). Under this scenario, the impact of inflation on imports can be either positive or negative, depending on the process involved. Yunanto & Medyawati (2025) emphasize that inflation plays a highly significant role in studying Indonesia's imports. Another important factor to consider is the producer price level in China. China's Producer Price Index reflects changes in prices at the producer level that affect export prices of goods from China (H. Chen dkk., 2016). If producer prices increase, goods exported to Indonesia are likely to become more expensive as well, which in turn reduces import demand. Likewise, if producer market prices fall, Chinese products may become more competitive in the Indonesian market (Eprilia & Aisyah, 2024).

The National Bureau of Statistics of China reports that in December 2025, China's PPI declined year-on-year, although the rate of decline slowed (National Bureau of Statistics of China, 2025). This suggests that China's PPI is relevant for capturing price factors from the exporting country. The demand for imported consumer goods, in theory, can be linked to various import demand theories that focus on relative prices and real income (Forgenie & Khoiriyah, 2023). In this study, relative prices include the exchange rate between the Indonesian Rupiah (IDR) and the Chinese Yuan (CNY), as well as China's PPI to measure changes in the prices of imported goods. Purchasing power is indicated by the Real Sales Index, while inflation is used to capture changes in domestic prices that can affect purchasing power and the substitution of imported goods for domestic goods. In addition, transaction digitalization is considered a factor that explains changes in transaction costs and convenience.

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Several previous studies have examined the determinants of imports in Indonesia, yet there remain multiple areas of inquiry that have not been widely investigated. Mashita (2022) and Prakoso & Hasmarini (2022) study the causal effects of importing consumer products from abroad into Indonesia's domestic market, but they do not specifically address the central goal of imports of consumer goods from China. Ramadhanis & Anward (2025) analyze the effects of income per capita, inflation, and exchange rates on Indonesia's consumer-goods import performance over the period 2000 to 2022; however, they do not include digital trade as a variable and have not used the most recent monthly data up to 2025. Yunanto & Medyawati (2025) analyze the determinants of Indonesia's imports, but the main object of study remains aggregated. Forgenie & Khoiriyah (2023) also analyze Indonesia's food import demand using an ARDL bounds testing approach for 1984–2020, finding that relative prices, real income, exchange rates, and domestic production are significant determinants in both the short and long run. Nevertheless, that study still relies on annual data with a limited set of variables, and it does not focus on bilateral consumer-goods imports from China or incorporate the dimension of digital trade. Meanwhile, Ahn & Lim (2025), Li et al. (2025), and Zhang et al. (2023) show the importance of digital trade in international trading activities. Guo et al. (2025) additionally examine the relationship between cross-border electronic trade and the characteristics of China's imported products. However, these studies have not specifically discussed China's consumer-goods imports into Indonesia.

This review indicates that the present study offers novelty by integrating exchange-rate variables measured as IDR/CNY, people's purchasing power, digital trade penetration, inflation, and China's producer prices into a single empirical model to explain Indonesia–China bilateral consumer-goods imports. This research can provide more relevant empirical evidence for shaping trade policy, controlling consumer-goods imports, and strengthening the competitiveness of domestic industries, because it incorporates the digital trade dimension alongside conventional macroeconomic variables.

METHOD

This study employs a quantitative method using secondary data in the form of monthly observation series over the period 2016–2025. The research information was collected from several official institutions, including the Badan Pusat Statistik (BPS), Bank Indonesia, and the National Bureau of Statistics (NBS) of China. BPS is used to obtain data on Indonesia's imports of consumer goods from China and Indonesia's inflation. Bank Indonesia is used to obtain data on the IDR/CNY exchange rate, the Real Sales Index, and the value of electronic money transactions. Meanwhile, NBS China is used to obtain data on China's Producer Price Index. This research involves six main variables: Indonesia's imports of consumer goods from China as the dependent variable, and the IDR/CNY exchange rate, people's purchasing power, digital trade penetration, inflation, and China's Producer Price Index as independent variables. The conceptual limits of each variable analyzed in this study are described as follows in Table 1.

Table 1. Operational Definition of Variables

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No.	Variable	Symbol	Data Source	Description
1	Imports of Consumer Goods	IMP	BPS	The value of Indonesia's imports of consumer goods from China, which reflects Indonesia's demand for consumer goods originating from China (Ahn & Lim, 2025; Forgenie & Khoiriyah, 2023; Ramadhanis & Anward, 2025)
2	Exchange Rate	KURS	Bank Indonesia	The exchange rate of the Indonesian Rupiah against the Chinese Yuan, which influences the import of consumer goods (Ahn & Lim, 2025; Forgenie & Khoiriyah, 2023)
3	Public Purchasing Power	IPR	Bank Indonesia,	Public purchasing power, which illustrates consumer activity, measured using the Real Sales Index as an alternative indicator (Ahn & Lim, 2025; Ramadhanis & Anward, 2025; Yunanto & Medyawati, 2025)
4	Digital Trade Penetration	DIG	Bank Indonesia	Electronic money transactions, used as an alternative indicator of public purchasing power and consumer activity (Ahn & Lim, 2025; Li et al., 2025)
5	Inflation	INF	BPS	The inflation rate/Consumer Price Index, expressed as a percentage (Ramadhanis & Anward, 2025; Tarina, 2025; Yunanto & Medyawati, 2025)
6	Chinese Producer Prices	PPI	NBS China	China's Producer Price Index, serving as an alternative indicator for changes in producer prices and the production costs of goods from the country of origin (Beirne et al., 2024; Sun et al., 2023; Tarina, 2025)

The econometric model used is formulated as follows:

$$lnIMP_t = \beta_0 + \beta_1 lnKURS_t + \beta_2 IPR_t + \beta_3 lnDIG_t + \beta_4 INF_t + \beta_5 \ln PPI_t + \varepsilon_t$$

IMP denotes the import of Indonesia's consumer goods from China in million USD units. KURS represents the exchange rate of the Indonesian Rupiah against the Chinese Yuan, measured in Rupiah per Yuan. IPR is the Real Sales Index, expressed as monthly growth in percentage terms. DIG is the value of electronic money transactions, measured in trillion Rupiah. INF is Indonesia's inflation, expressed as monthly month-to-month percentage. PPI is the Chinese Producer Price Index in index form. β_0 is the constant, β_1–β_5 are the regression coefficients, ε is the error term, and t indicates the monthly time period. Variables IMP, KURS, DIG, and PPI are transformed using natural logarithms so that the coefficients can be interpreted as elasticities. Meanwhile, IPR and INF are used in their original forms because they are already expressed as an index or as a percentage.

All processing of the research data is supported through the EViews application using time-series data analysis techniques and the Autoregressive Distributed Lag (ARDL) method. The use of ARDL is based on the research focus on the effects of several independent variables on a dependent variable, namely the value of Indonesia's receipts for consumer products originating from the Chinese market. The ARDL model can also be used to estimate linkages in both the short and long run, even when the degrees of integration among variables differ, namely I(0) and I(1), provided that no data with integration order I(2) are found. The adequacy of the

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model specification is assessed through tests for autocorrelation, heteroskedasticity, the normality distribution of residuals, and the stability of model parameters.

RESULT AND DISCUSSION

Descriptive Statistics

Descriptive statistics were conducted to provide an overall picture of the characteristics of the data used in the study, namely Indonesia's imports of consumer goods from China, the Rupiah exchange rate against the Yuan, the Real Sales Index (IPR), digital trade penetration, inflation, and China's Producer Price Index (PPI). Descriptive statistics are reported in Table 2, covering the mean, maximum value, minimum value, and standard deviation of each indicator for the period from January 2016 to December 2025.

Table 2. Descriptive Statistics of Research Variables

Variable	N	Mean	Minimum	Maximum	Std. Deviation
LN_IMP	120	5,2294	4,5386	5,5334	0,1977
LN_KURS	120	7,6664	7,5661	7,7702	0,0504
IPR	120	2,8900	−20,6000	16,5000	7,1096
LN_DIG	120	19,0618	12,8672	25,2966	4,6732
INF	120	0,2313	−0,7600	1,6500	0,3340
LN_PPI	120	4,6148	4,5497	4,7318	0,0436

Source: Data processed using EViews, 2026.

Based on Table 2, all variables consist of 120 observations, covering monthly data from January 2016 to December 2025. The IPR variable exhibits relatively greater fluctuations throughout the study period, whereas the exchange rate and PPI tend to show less variation. Meanwhile, the variables for imports, digital trade penetration, and inflation also display changes over the observation period, each with its own degree of variation.

Stationarity Test

Testing data stability using the Augmented Dickey-Fuller (ADF) method to determine the level of integration of each variable. The analysis includes the level and first-differencing conditions at a 5% significance threshold. The data are classified as stationary when the ADF probability is less than 0.05. The results of this testing are presented in Table 3.

Table 3. Stationarity Test Results

Variable	Prob. Level	Prob. First Difference	Diff. Oder
IMP	0,1352	0,0000	I(1)
KURS	0,7545	0,0000	I(1)
IPR	0,0039	–	I(0)
DIG	0,8365	0,0000	I(1)
INF	0,0000	–	I(0)
PPI	0,1737	0,0000	I(1)

Source: Data processed using EViews, 2026.

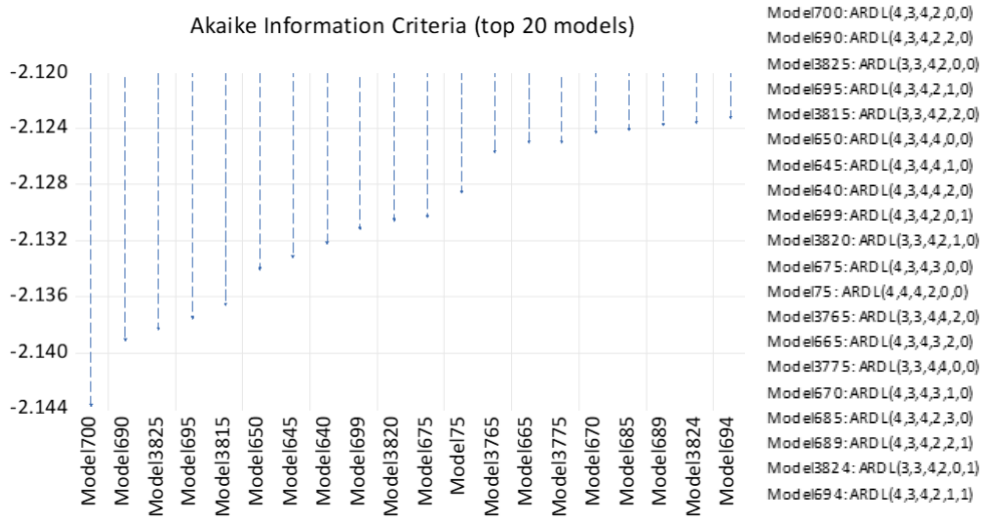
These results indicate that, based on the analysis, INF satisfies the stationarity criteria at the initial condition with an integration level of I(0). In contrast, IMP, KURS, DIG, and PPI achieve stability only after undergoing one round of differencing, corresponding to I(1). Therefore, the research data cover only combinations of

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integration levels I(0) and I(1), with no variables found at an I(2) order; accordingly, ARDL modeling is appropriate.

ARDL Model Selection and Cointegration Testing

The selection of the ARDL model is based on the Akaike Information Criterion (AIC) presented in the figure.



Graph 1. Akaike Information Criterion (AIC) Results

Source: Data processed using EViews, 2026.

Based on the estimation results across various lag combinations, the ARDL model (4,3,4,2,0,0) yields the lowest AIC value of −2,143744. Accordingly, ARDL (4,3,4,2,0,0) is selected as the model for estimating the relationship between Indonesia's imports of consumer goods from China and the exchange rate, people's purchasing power, digital trade penetration, inflation, and the producer prices in China. After the ARDL model is selected, a Bounds Test is conducted to determine the existence of a long-run relationship among the research variables. A summary of the analysis results is presented in Table 4.

Table 4. ARDL Bounds Test Results

Statistic	Value
F-statistic	5,548929
I(0) pada α = 5%	2,390
I(1) pada α = 5%	3,380
Decision	Cointegration exists

Source: Data processed using EViews, 2026.

These results indicate that the F-statistic reaches 5.548929, exceeding the upper critical value for I(1) of 3.380 at a 95% confidence level. This implies that H_0, which states the absence of a long-term relationship, is rejected. Accordingly, it can be concluded that there is a long-run equilibrium among Indonesia's imports of consumer goods from China, the exchange rate, the public's purchasing power, the penetration of digital trade, inflation, and China's producer prices.

Estimation of Long-Run and Short-Run Relationships

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1. Long-Term Estimation

Long-term estimation aims to identify the effect of each independent factor on Indonesia's imports of consumer goods originating from China over a long period. The calculations yield the following findings, which can be seen in Table 5 below.

Table 5. Long-Term Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_KURS	1,380217	0,436336	3,163202	0,0020
IPR	−0,008519	0,002578	−3,304003	0,0013
LN_DIG	0,023324	0,005187	4,496263	0,0000
INF	0,057494	0,042739	1,345225	0,1813
LN_PPI	1,622369	0,390010	4,159816	0,0001

Source: Data processed using EViews, 2026.

The results of the analysis indicate that KURS has a significantly positive effect on imports in the long run horizon, whereas IPR shows a significantly negative effect. DIG and PPI also make a positive and statistically significant contribution to the import activity of Indonesia's consumer goods from China. On the other hand, INF has a direct relationship, but it has not yet been proven statistically significant at the 5% level.

2. Short-Run Estimation and Error Correction Model

Short-term estimation is conducted to determine the responsiveness of import changes to changes in each individual variable over several periods. In addition, an Error Correction Model is used to assess the speed of adjustment of short-run imbalances toward long-run equilibrium. The short-term estimates are reported in Table 6.

Table 5. Short-Term Estimation Results

Variable	Coefficient	Prob.
COINTEQ	−0,587719	0,0000
D(LN_IMPOR(-1))	−0,307352	0,0015
D(LN_IMPOR(-2))	−0,269393	0,0034
D(LN_IMPOR(-3))	−0,125268	0,1101
D(LN_KURS)	0,098655	0,8300
D(LN_KURS(-1))	−0,754353	0,0956
D(LN_KURS(-2))	−1,066301	0,0255
D(IPR)	0,000533	0,7412
D(IPR(-1))	0,003747	0,0296
D(IPR(-2))	0,004826	0,0048
D(IPR(-3))	0,004418	0,0093
D(LN_DIG)	0,014679	0,1933
D(LN_DIG(-1))	−0,033460	0,0033

Source: Data processed using EViews, 2026.

Based on these results, the COINTEQ coefficient indicates an error-correction coefficient that is negative and statistically significant, suggesting that the adjustment process toward a long-run equilibrium is occurring. In the short run, 58.77% of deviations can be restored to the equilibrium point within one month. In the short run, exchange-rate changes in the current period and the first lag are not significant, whereas exchange-rate changes in the second lag have a negative and statistically significant effect on changes in imports. Changes in the IPR in the current period are not significant, while the IPR in lags one through three shows a positive and

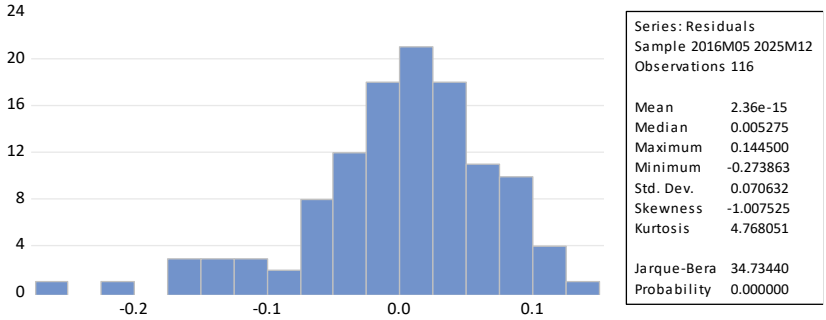
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statistically significant effect. Meanwhile, changes in digitalization in the current period are not significant, but digitalization in the first lag has a negative and statistically significant effect.

Diagnostic Testing and Model Stability

1. Normality Test

Normality testing aims to assess the distribution pattern of the residual values in the ARDL equation. The results of the normality test can be seen in Figure 4.



Graph 2. Normality Test Result

Source: Data processed using EViews, 2026.

The Jarque-Bera test yields a probability value of 0.0000, which is less than the 5 percent significance level. Consequently, the null hypothesis that the residuals are normally distributed—is rejected, indicating that the model's residuals do not satisfy the assumption of normality.

2. Autocorrelation Test

Autocorrelation—or serial correlation—is examined using the Breusch-Godfrey LM test. A summary of the test results is presented in Table 7 below.

Table 6. Autocorrelation Test Results

Testing Methods	Obs*R-squared	Prob. Chi-Square
Breusch-Godfrey LM	0,742783	0,6898

Source: Data processed using EViews, 2026.

The results show a probability value greater than the 5 percent significance level. Therefore, the null hypothesis is not rejected, indicating that there is no autocorrelation issue in the model's residuals.

3. Heteroskedasticity Test

The heteroskedasticity test was conducted using the Breusch-Pagan-Godfrey test, as shown in Table 8.

Table 7. Heteroskedasticity Test Results

Testing Methods	Obs*R-squared	Prob. Chi-Square
Breusch-Pagan-Godfrey	17,66536	0,4779

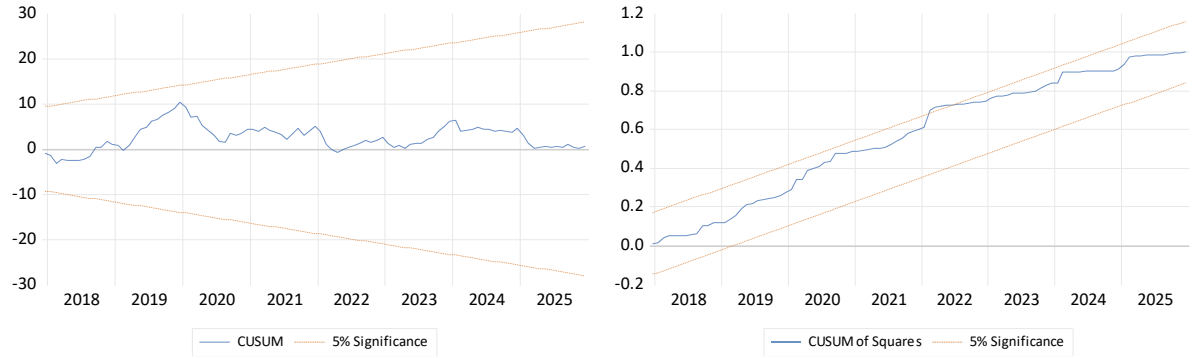
Source: Data processed using EViews, 2026.

The results show a probability value greater than the 5 percent significance level. Therefore, the null hypothesis is not rejected, indicating that there is no heteroskedasticity issue in the model's residuals.

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4. Model Stability Test

The stability of the model is tested using the CUSUM and CUSUM of Squares tests, which are presented in Figure 5 below.



(a) (b)

Graph 3. (a) CUSUM Test Results; (b) CUSUM of Squares Test Results
Source: Data processed using EViews, 2026.

Based on the stability test results, the CUSUM line remained within the critical bounds at the 5 percent significance level throughout the observation period. Similar results were observed for the CUSUM of Squares, which also stayed within the 5 percent critical bounds, although it approached the upper bound during certain periods. These findings indicate no evidence of parameter instability in the model over the study period.

Discussion

The research findings indicate a long-run equilibrium relationship between Indonesia's imports of consumer goods from China and the exchange rate, people's purchasing power, digital trade penetration, inflation, and China's producer prices. This is evidenced by the results of the Bounds Test and a negative and significant error correction term, which suggest an adjustment mechanism from short-run disequilibrium toward long-run equilibrium. These findings are supported by Forgenie & Khoiriyah (2023), who also report cointegration between Indonesia's import demand and relative prices, real income, the exchange rate, and domestic production. The exchange rate shows different effects across the short and long run. In the short run, the negative and significant effect appears only at the second lag, indicating that import responses to exchange-rate changes require time. Such adjustment may be related to trade contracts, ordering processes, price adjustments, and shipping time.

These results are consistent with Forgenie & Khoiriyah (2023), who find a negative relationship between the exchange rate and Indonesia's import demand for food commodities in both the short and long run, as well as Rifami & Heriqbaldi (2023), who show that the response of bilateral trade to exchange-rate changes can differ between the short and long run. By contrast, in the long run, the exchange rate has a positive and significant effect with a coefficient of 1,3802. Because the exchange rate is measured as Rupiah per Yuan, an increase in the exchange rate indicates a weakening of the Rupiah against the Yuan. This positive direction differs from the conventional price mechanism: theoretically, Rupiah depreciation raises the relative price of imported goods and can suppress demand. However, exchange-rate changes

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are not always fully passed through to import prices due to incomplete exchange-rate pass-through. Beirne dkk. (2024) shows that the transmission of exchange-rate changes to prices in developing Asian countries may be incomplete. Salim dkk. (2023) also finds an asymmetric exchange-rate effect on bilateral trade between Indonesia and China. Therefore, the positive long-run relationship implies that developments in Indonesia's imports of consumer goods from China are not only related to exchange-rate changes, but may also be influenced by characteristics of demand and China's product competitiveness.

People's purchasing power, proxied by IPR, also shows differences in its impact across periods. In the short run, IPR at the first through third lags has a positive and significant effect, indicating that increases in consumption activity take time before they are reflected in higher import levels. This result aligns with Forgenie & Khoiriyah (2023), who find a positive effect of real income on imports. Ramadhanis & Anward (2025) also report that per capita income affects imports of consumer goods. Boonman dkk. (2026) likewise places real income as one of the important factors in an import demand analysis. However, in the long run, IPR instead has a negative and significant effect with a coefficient of −0,0085. This finding differs from the generally expected positive relationship between purchasing power and import demand. The discrepancy may be related to the characteristics of IPR as a proxy for retail sales activity, rather than a measure of income or of expenditure specifically for imported goods.

Penetration of digital trade shows a positive and statistically significant effect in the long run, whereas in the short run a negative and statistically significant effect appears at the first lag. The positive long-run effect suggests that developments in the digital transaction ecosystem can support trade by making it easier to obtain information, compare prices, and make payments. This finding is supported by Li et al. (2025), who report that the development of digital finance has a positive effect on international trade activity. This result can be compared with Cao & Hsu (2025), who find that digitization helps reduce barriers to international trade. Chen & Guo (2026) also find that cross-border electronic trade can lower import trade costs for China. However, in this study, the value of electronic money transactions is used as a proxy for digital trade penetration rather than as a direct measure of cross-border e-commerce transactions; therefore, changes in electronic money transactions do not necessarily move in the same direction as imports, because this proxy also captures various domestic transactions. Inflation shows a positive effect but is not statistically significant on imports of consumer goods from China in the long run. This indicates that changes in domestic inflation have not been able to explain import variation statistically after accounting for other variables in the model.

The result is consistent with Ramadhanis & Anward (2025), who find that inflation has no statistically significant effect on imports of consumer goods in the long run. The insignificance of inflation may imply that import decisions over longer horizons are more closely related to other factors, such as income, relative prices, exchange rates, and the need for specific goods. In addition, inflation may operate through opposing mechanisms, by both suppressing the real purchasing power of the public and increasing the relative attractiveness of imported goods when domestic prices rise faster. The producer prices of China, proxied by PPI, show a positive and

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statistically significant effect on imports in the long run, with a coefficient of 1.6224. This positive direction differs from the theoretical expectation that higher producer prices increase export prices and thereby suppress import demand. However, changes in PPI are not always fully passed through to export prices because producers may adjust their margins and adopt pricing-to-market strategies, leading to imperfect cost pass-through to importers.

Cao et al. (2015) show that the transmission of changes in costs and exchange rates to export prices can differ across industries and is influenced by the invoicing currency. The IMF (2018) and the European Central Bank (2023) also indicate that PPI and export prices may move in the same direction, but they do not exhibit a one-to-one relationship because export prices are also affected by external conditions and global supply chains. Beyond these price transmission mechanisms, the positive PPI result also needs to be assessed in terms of the form of the study's dependent variable. Imports are measured using the value of imports in million USD, not the physical volume of goods. Therefore, increases in price components can raise the nominal value of imports even if the quantity of goods imported does not increase proportionally. Consequently, a positive PPI coefficient should not be interpreted directly as producer price increases causing Indonesian consumers to buy more Chinese goods in terms of quantity; rather, it indicates a positive relationship between the development of Chinese producer prices and the value of Indonesia's imports of consumer goods in the long run.

CONCLUSION

Exchange rates, people's purchasing power, the penetration of digital trade, inflation, and the producer prices of China play different roles in determining Indonesia's imports of consumer goods from China over the 2016–2025 period. In the short run, the exchange rate (KURS) has a significantly negative effect during the two lag periods. By contrast, purchasing power measured by the Real Sales Index (IPR) shows a positive influence in the first through third periods, whereas digital trade transactions have a significantly negative impact in the first period. In the long run, the exchange rate, digital trade penetration, and China's producer prices have positive and significant effects on import values, while the IPR has a negative and significant effect, and inflation shows no significant influence. These findings indicate that factors related to imports of consumer goods are linked differently across the short and long periods.

This study has limitations because the import values used cannot yet distinguish between changes in prices and volumes of goods, while the IPR and the value of e-money transactions as a proxy do not directly capture consumption of imported goods or cross-border digital trade. In addition, the model does not account for other factors, such as logistics costs and trade policies, which could potentially affect import values. Therefore, future research is recommended to use import data by commodity group and more specific digital trade indicators, and to incorporate additional factors to broaden the analysis. From a policy perspective, the results suggest the importance of monitoring changes in the exchange rate and China's producer prices as part of trade risk management. The government also needs to encourage improvements in the competitiveness of domestic products by

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strengthening production efficiency, product quality, and local firms' access to digital trade platforms so that they can better face competition from foreign products in the domestic market.

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